



Long-Distance Pipelines

Long-distance pipeline transport is a proven technology for slurry and has been widely accepted as a competitive and environmentally beneficial alternative to conventional bulk transport for many years.

At Paterson & Cooke, our engineers have experience in all aspects of long-distance pipeline system design and operation, covering a variety of pipeline types, such as concentrate, ore, tailings, and water systems.

Our Capabilities

From Concept to Execution

- Our extensive laboratory services include characterisation, rheology, wear and corrosion assessments, and pipe loop capabilities to underpin our design activities.
- We undertake conceptual and trade-off studies to ensure the most economic, applicable and operable solutions are advanced to later stages of the design.
- Our comprehensive pre-feasibility and feasibility studies refine designs to adhere to international best practice, provide accurate cost estimates and allow informed project decision-making.
- Detailed design which is a critical stage where the design must be rigorously specified to deliver the intended performance. Crucial to this is accurate documentation supporting contractor bidding and specification of construction requirements which we undertake, on your behalf.
- Our engineers will be on site to offer construction support and commissioning to ensure the delivered system performs to expectations.
- For operating systems, our multidiscipline team can provide optimisation and upgrades and can carry out operator training.

Our experience and capability extend upstream into the processing plants feeding these long-distance pipelines, the terminal station materials handling including filtration, and associated systems such as return water pipelines.



Understanding Operations

A critical aspect of pipeline design is understanding the characteristics and operation of pipelines. Using our sophisticated simulation software, control sequences such as start-up, shutdown and the consequences of fault or trip conditions are dynamically modelled which is critical for minimising risk both during design and in troubleshooting existing pipelines.

Our bespoke software can simulate the transport of multiple slurry batches through a single pipeline, covering a range of different densities and hydraulic properties - including water batches - to predict and optimise the effect of batch sequencing on the system behaviour. This also creates opportunities to reuse existing assets for new materials or products.

Pipeline Asset Management

We have extensive experience undertaking pipeline audits and advising on, as well as interrogating intelligent pigging campaigns (ILIs). We work with owners to develop multi-year asset integrity plans, advising on cleaning and pigging frequency, pigging result interpretation, corrosion growth rates, repair locations and timings, operating envelope updates, and capital planning.

Projects

We have decades of global experience executing long-distance slurry pipeline projects, from pre-feasibility to detailed engineering design, construction assistance, and commissioning. Please contact our local office for a full reference list relevant to your particular requirements.



Group Capabilities

- Tailings & Mine Waste
- Long-Distance Pipelines
- Mine Backfill
- Mineral Processing
- Mine Services
- Bulk Water Supply
- Dredging & Marine Pipelines
- Laboratory & Test Work
- Engineering Services

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