



Above Copper tailings cyclone dilution tank and cyclone stations



Top Copper tailings cyclone station

Bottom Tailings water reclaim pumping barge

Responsible and cost-effective tailings management solutions

Changing trends

The trend in tailings pipeline systems is toward longer distances, higher concentrations, and longer design lives. The “brute force” approach, with its need for frequent pipeline repair, rotation, and replacement is finding less application in the design of tailings disposal systems and is environmentally unacceptable.

State-of-the-art design

Ausenco PSI specializes in the design of a wide variety of state-of-the-art tailings management systems that couple experienced and innovative design approaches with the latest materials. Our solutions include gravity flow, open channel flow, energy dissipation, multiple pumps in series, and thickened paste disposal.

A new era of responsibility

At Ausenco PSI, we understand that your tailings management decisions are affected by economic and environmental factors that did not exist in past decades. We apply our understanding of complex hydraulics and tailings management (e.g. dam construction) to your unique requirements to identify solutions that will result in longer design lives, reduced failure risk, and increased operating efficiency.

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Key services

- Basic and Detailed Engineering
- Design Audits/Optimization Studies
- Feasibility Studies
- Laboratory and Loop Testing Programs
- Solids/Liquid Separation Evaluation
- Transient Pressure Analysis
- Complex Hydraulic Modeling
- Pipeline SCADA and Telecommunications
- Pump, Choke, Valve, and Cyclone Station Design
- Site and Route Selection
- Construction Support
- Start-up and Commissioning
- Pipeline System Operation and Maintenance
- Operator Training and Operations Support

Types of projects

- Surface Disposal of Thickened/Paste Tailings
- Conventional Tailings Disposal
- Recovery and Relocation of Existing Tailings
- Deep Sea Tailings Placement
- Open Channel Flow (Launder System)
- Packed Flow Pipeline Systems
- Tailings Disposal Site Location
- Water Reclaim Systems
- Distribution System Design
- Underground Hydraulic/Paste Backfill Systems