Customer Success Story

Location: Alaska

AMI solutions supply water to the world's largest zinc mine

In remote mine locations, water scarcity and accessibility pose significant challenges.

Challenge

Located in a remote region, the world's largest zinc mine operates as an open-pit truck-and-loader operation, employing conventional drill and blast mining methods.

The mine is the largest producer of zinc globally, accounting for 10% of the world's zinc production.

The mine operations are based in a remote location with self-reliant infrastructure including power generation, worker housing, and ocean shipping facilities.

Feedwater is sourced from seawater with a total dissolved solids (TDS) level of 35,000 ppm. The client needed a solution that could efficiently purify seawater to meet stringent water quality standards for operational and community use.

The client had a tight timeline and needed a reliable water treatment solution quickly.

Solution

Applied Membranes designed and built two (2) Seawater Reverse Osmosis (SWRO) systems for the client, with a total capacity of **30 GPM (7 m3/h).**

AMI SWRO systems produce high-quality permeate for mine operations and human consumption.

Sand filtration is the final stage of water treatment prior to discharge to minimize environmental impact.

Key Features:

- Antiscalant
- Chemical injection
- Permeate tank
- Iron filter
- Heat exchanger/controller
- Programmable Logic Controller (PLC)

Results

AMI systems continues to provide a reliable supply of high-quality water for the client's operations.

Tight timeline: AMI met the urgency of the project which required planning and efficient execution.

Reliability: AMI RO systems produce a consistent and reliable supply of clean water, essential for sustaining both mine operations and the well-being of the local community.

Cost savings: AMI SWRO systems provide long-term cost savings by reducing the need for costly transportation of clean water to the remote site.

2450 Business Park Dr, Vista, CA 92081 | www.appliedmembranes.com | sales@appliedmembranes.com | 760-727-3711