AMPS™ Packing Technology Provides No-Torque Sealing for Difficult to Access Turbines

Hydro Industry
Chesterton AMPS™ (Advanced Mechanical Packing System) and DualPac® 2212 Packing
Case Study 053 RE

Challenge

Issue

A hydroelectric station had several old turbines in a difficult location where it was impossible for staff to adjust packing while in operation.

As packing lost compression over time, significant leakage occurred, leading to unplanned and costly shutdowns.

The plant's goal was to have long-term operation with limited leaking.

Solution

Overview

Five rings of DualPac® 2212 Severe Slurry Packing were installed shown in the illustration below using Chesterton® AMPS Technology.

Chesterton proprietary AMPS (Automated Mechanical Packing System) is a fully autonomous packing system with active loading technology. By automatically adjusting packing compression, this technology greatly reduces maintenance costs and mitigates any safety concerns.

Results

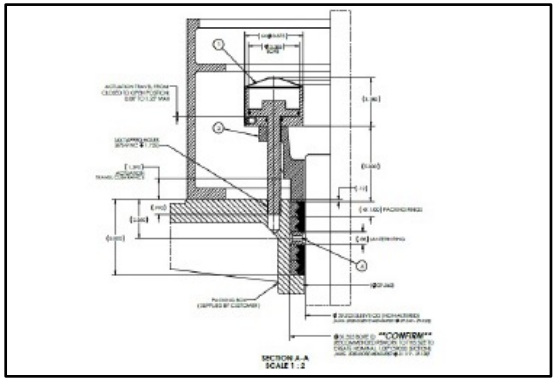
Client Reported

The plant certified the system's compliance with technical requirements.

MTBR / Savings

- AMPS technology applies the necessary compression for the packing and provides a long-lasting, smooth operation.
- Costly shutdowns related to excess leakage were prevented.
- Costs from excessive leakage were lowered and plant safety increased.

Heavy turbine leakage was causing issues.



AMPS with five rings of DualPac 2212 packing.

AMPS installed and in operation since April 2021.

A.W. Chesterton Company
860 Salem Street, Groveland, MA 01834 USA

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