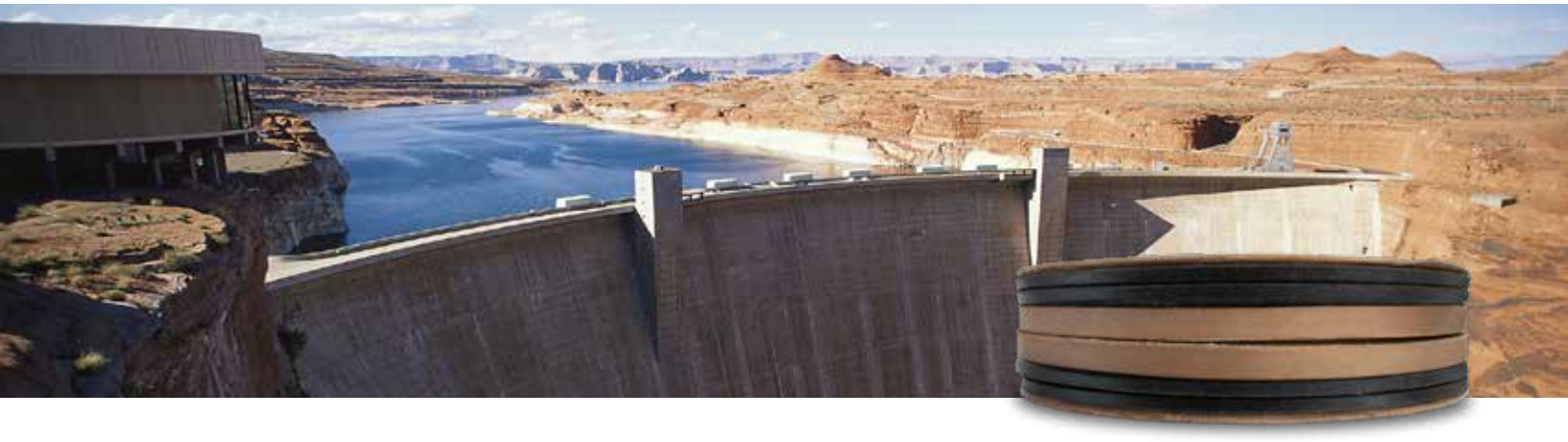
Garlock

Case Study: Style 261RH/435 Set Power



INDUSTRY
Hydroelectric

CUSTOMER
US Army Corps of Engineers, McNary Dam

BACKGROUND
Turbine Blade Runner units usually require a 3 - 5ft diameter, "double-reversed" Chevron set for each of the 4 to 6 blade shanks. These "double reversed" sets are two single sets assembled with the female adapters back-to-back in order to seal oil in the blade hub on one side and keep river water out on the other. There is no gland adjustment available, so the sets must be custom designed to meet a precise stack height.

CHALLENGES FACED
The turbine blades are very old (1950's era) and overtime the blade shafts have started to bend/droop so they are not perfectly concentric. If failure occurs oil leakage could get into the river and result in Clean Water Act violations. There's also a large time and monetary expense to change out the packing - $200,000 to $300,000 lost each week the equipment is down.

OPERATING CONDITIONS
Size: 50x52"
Temperature: 50˚F - 150˚F
Application: Turbine blade seal
Media: Oil on one side, river water on the other
Pressure: <100psi

SOLUTION AND BENEFITS
The dam was experiencing seal failure when using competitive products and has since specified Garlock high performance 261RH/435 seal combination.

"Garlock Turbine Blade Runner Packing is the only… packing proven to stop leakage at McNary Dam."

For more information, please visit:
http://www.garlock.com

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