

## Canfor Pulp Realizes More Consistent Control of Turbine Speed with Exlar's Tritex II Actuator

### APPLICATION

Pilot valve actuator on inlet and extraction turbine valves at a pulp mill

### CUSTOMER

Canfor Pulp is located in British Columbia, Canada and is a leader in the integrated forest products industry. Canfor Pulp owns and operates three mills in Prince George, BC which produce fully bleached, high performance Kraft pulp.

### CUSTOMER CHALLENGE

Canfor's turbine pilot valve was operated with an electro-hydraulic actuator that was very sensitive to oil pressure, temperature and cleanliness. This made it difficult for Canfor to calibrate and maintain calibration of the actuator, leading to inconsistent control. The actuator also leaked oil causing decreased efficiency and an increased need for maintenance. Obsolescence of the electro-hydraulic actuator further increased the maintenance costs. Canfor required a solution that was accurate, easily maintained, easy to set up and control, and inexpensive to repair.

### SOLUTION

Exlar's Tritex II actuator was the ideal solution to control Canfor Pulp's turbine pilot valve. The all-electric actuator limited the oil usage to the main valve controls, eliminating the sensitivity of pressure and temperature swings. With its high repeatability and accuracy, the Tritex II actuator had no problem maintaining calibration and perfect control of the pilot valve. Switching to the Tritex II actuator significantly decreased the amount of maintenance required on the pilot valve, and therefore increased the turbine's up time. Exlar's Tritex II actuator also offered simple calibration, set up and monitoring and was easily integrated into the existing DCS



Before:  
*Electro-hydraulic Solution*



After:  
*Exlar Electric Solution*

system with a 4-20mA command signal. In addition, Canfor can now monitor the Tritex II actuator remotely using serial communication to ensure that it is operating within load and temperature specifications for preventative maintenance. Canfor now has more consistent control of the steam turbine's speed compared to the previous electro-hydraulic solution.

### RESULTS

- Reduced maintenance which led to increased turbine up time
- Increased efficiency through the reduction of oil leaks
- More consistent control of turbine speed