

SUEZ solves capacity issue for high quality water at DuPont's Kingston facility

challenge

The DuPont Kingston Plant in Kingston, Ontario, Canada needs ultrapure water for their nylon process water and high-pressure boiler feedwater.

The existing cold-lime clarification pre-treatment system and mixed bed ion exchange polishing system was undersized and insufficient to produce the required water quantity and quality for a planned nylon plant expansion.

solution

SUEZ proposed the process in Figure 1 to provide the Kingston plant with the required high-quality water for their process after running an ultrapure water pilot at the Kingston plant.

Based on the successful pilot results, SUEZ was awarded an outsourcing contract and installed a 200 gpm (45.4 m³/h) water treatment system, which met Canadian CSA and CSN regulations.

results

The water treatment system has a production capacity of 288,000 gpd (45.5 m³/h) of ultrapure water for their nylon process and boiler feedwater. The mobile ion exchange polisher is regenerated at SUEZ's remote service center, resulting in no regenerant wastewater for neutralization or discharge. The higher quality water feeding the nylon process and utility systems has increased efficiencies at the plant.

Parameter	SUEZ System	Old System
Conductivity	<0.07 µmho	>0.1 µmho
Silica	<5 ppb	>40 ppb

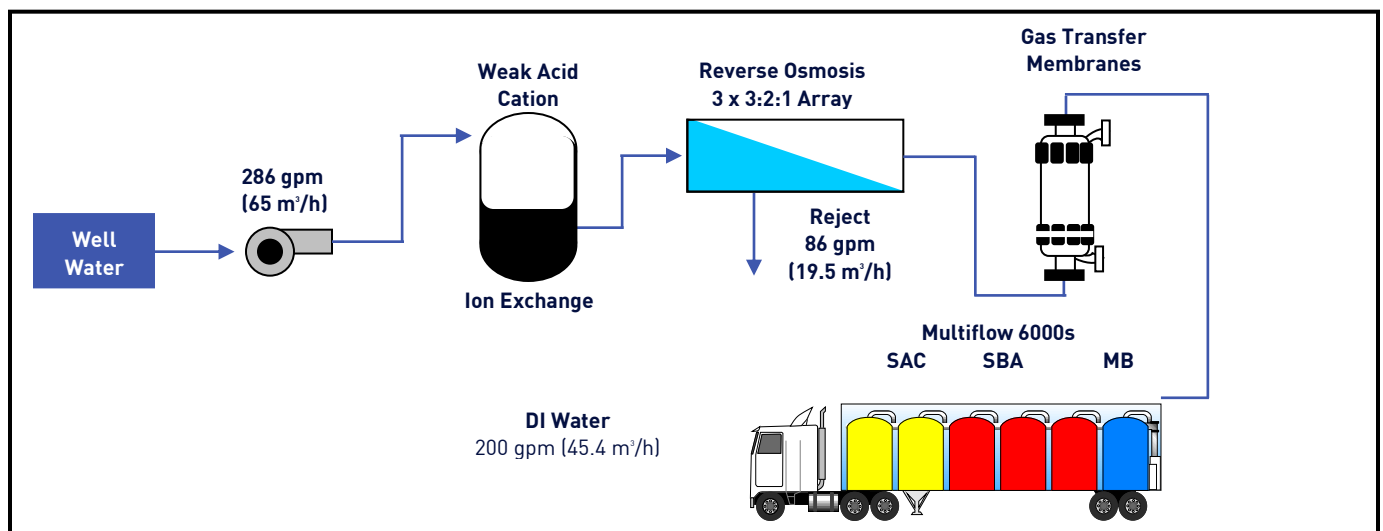


Figure 1: High quality water process

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