

The water treatment facility incorporates four Tonka 10' diameter ion vessels. Two vessels are designed with anion ion exchange resin for nitrate removal, and two vessels include cation resin for water softening. The water is first treated for hardness reduction to achieve a blended level of 150 mg/l hardness. This softened water is then treated by anion ion exchange resin to remove the nitrate. The City's treatment process has multiple built-in safety checks that ensure that the water leaving the plant is not only safe to drink, but well under the USEPA and Texas Commission on Environmental Quality (TCEQ) nitrate regulation limit.

This Process is controlled by a state of the art PLC control Panel. The controller has the ability to automatically regenerate each vessel independently once a selected amount of water has passed through the vessels. The PLC also receives feedback from online flowmeters and automatically adjusts flows to the vessels based on this input. Nitrate levels are measured manually and recorded.

