

ChemTreat's FlexPro™

Provides Low-Phosphorus Discharge Solution for Midwest Agricultural & Industrial Components Manufacturer

Background

A Midwestern agricultural and industrial components manufacturer was notified by the State Department of Natural Resources they would soon be required to conduct regular effluent discharge testing for phosphorous in their plant effluent due to increasing levels. The plant was

operating under a direct discharge permit being modified to require less than 1 ppm phosphorous in the effluent. In their NPDES renewal process, the plant learned if they continued to discharge higher phosphorous levels to the creek, they would need to increase testing and potentially have to treat the effluent to ensure phosphorous discharge levels were maintained at less than the new 1 ppm limit.



Solution

ChemTreat was allowed to survey the plant to help find a solution. The cooling system at the plant consisted of four high-temperature evaporative condensers and one traditional cooling tower that were treated with a competitive program relying heavily on organic phosphonate. Implementing a low-phosphorous alternative was very desirable to the plant because effluent testing and treatment would not be required; however, there could not be any loss of performance on the critical pieces of equipment. ChemTreat's new FlexPro™ cooling water treatment technology, CL4657, was recommended to the plant. Within 30 days, the business was awarded to ChemTreat.

Summary

After over three years with the FlexPro™ treatment program, results have been excellent. Mild steel corrosion rates have consistently been less than 1.5 mpy, heat transfer surfaces are clean and deposit free, and the plant remains in compliance with phosphorous discharge limits.

