



Spiroflow's bulk bag filler is filled from silos containing fertilizer prills of different sizes.



Different size fertilizer pills



Clean Water Services' Nutrient Recovery Facility

Customer Requirements

Vancouver based Ostara Nutrient Recovery Technologies has developed a new generation of wastewater treatment systems – a nutrient recovery solution that creates value from waste by recovering nutrients from wastewater and transforming them into revenue generating, environmentally friendly commercial fertilizer.

Ostara needed a reliable bulk bag filling system for the premium, slow release fertilizer. They also needed a partner that could reliably supply new bulk bag filling systems to each new wastewater treatment facility installing commercial nutrient recovery systems using their technology.

Clean Water Services is a water resources management utility located in Oregon recognized for their innovation and forward thinking. Their Durham Advanced Wastewater Treatment Facility in Tigard, Oregon was the first facility in the United States to install a commercial nutrient recovery facility using Ostara's technology - a \$2.5 million nutrient recovery system with three reactor vessels was constructed in June 2009.

Spiroflow Solution

- The system has the capacity to produce 500 tons of Crystal Green per year, and will soon have produced one million pounds of this premium, slow release fertilizer, sold across North America.
- This innovation not only helps the treatment facility meet environmental regulations, but saves energy and maintenance costs, increases capacity at the treatment facility, provides a reliable revenue stream and is expected to pay for itself in five years.
- In addition to the installation at Clean Water Services in Oregon, Spiroflow has designed and installed bulk bag fillers into Ostara's other Nutrient Recovery Facilities located in York, Pennsylvania and at Hampton Roads Sanitation District facility in Suffolk, Virginia.

According to Aynul Dharas, VP of Projects for Ostara, 'We were evaluating various suppliers and felt that Spiroflow was a good fit. They had the right experience and we were confident that they could handle our fertilizers effectively. Spiroflow engineers have made mechanical changes to the newer systems that improve the automation process which have been very helpful.'

'We were also very comfortable working with Spiroflow's sales and service people. Any issues that came up were resolved quickly and completely. It's a good partnership and we have a strong working relationship.'

Dharas adds, 'We have two more major installations currently scheduled and we will continue to include Spiroflow's bulk bag fillers as part of our Nutrient Recovery Solutions.'

The Result

Clean Water Services' Plant Operator Brett Laney oversees the Ostara Nutrient Recovery System at the Durham Plant in Oregon. According to Laney, 'From an operational perspective, we've had a great experience with Spiroflow.'

'It works very well and is fast and simple to operate. We filled two 2,000 lb. bulk bags this morning in about ten minutes. I will be running another Ostara Nutrient Recovery System currently being built at our Rock Creek operation in Hillsboro, Oregon and I'm glad Spiroflow Systems will be providing the bulk bag filling system there. I know we won't have any problems.'