cleanwater

CASE STUDY

B&B POULTRY

Polyblend® Dry Polymer Activation Equipment Upgrade Yields Consistent Polymer Savings for New Jersey Poultry Plant Wastewater System



OVERVIEW

B&B Poultry is a national family-owned poultry processing enterprise that has been operating in its Norma, NJ facility for over 75 years. Known throughout the world for quality and integrity, B&B's operating discipline extends to the operation of its wastewater treatment system. As a result, B&B Poultry has received numerous awards and accolades for its sustainable practices, including recognition from the Maryland Department of the Environment and the U.S. Environmental Protection Agency.

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What makes B&B unique, is that they have their own unique wastewater treatment system. Due to Federal and local regulations, the food processing industry is subject to strict policies around wastewater discharge. Plants are obligated to adhere to the NPDES (National Pollution Discharge Elimination System). If the concentration of discharged waste rises above a predetermined level, they are assessed additional charges. Hence, food processing companies have both an economic and regulatory hurdle or opportunity, to

operate their wastewater treatment systems more efficiently and sustainably.

SITUATION

B&B Poultry's wastewater treatment process uses a dissolved air flotation, or DAF, operation to drive air in the form of microbubbles into the wastewater. This aids the flotation and separation of contaminants like fat, oil, grease and other "biological oxygen demand" (BOD).

To optimize efficiency, this energy intensive DAF process operates in conjunction with a chemical polymer to enhance the coagulation of the waste. This additional step enables B&B to keep concentrations below a pre-determined level, thus avoiding fees. The problem is the operating staff often has to manually weigh out the polymer and wait up to 60 minutes for it to activate. It also increases operational costs. In an effort to increase efficiency at the plant, staff looked to alternative approaches resolve these problems.



Overhead view of the B&B Poultry plant in Norma, NJ

APPROACH

After researching their options thoroughly, B&B Poultry learned of cleanwater1's Polyblend system. They were eager to improve their system as soon as possible, they opted to upgrade plant operations by incorporating the Polyblend® Dry Polymer blending process.

The hope was the the Polyblend® DP-110 activation and storage unit would activate the polymer instantly, versus having to wait 30-60 minutes and improve the efficiency of activation by creating less polymer waste.

"Our continued investment in wastewater treatment capabilities is consistent with our stewardship of our local environment and community."

Vince Marino, General Manager, B&B
______ Poultry



RESULTS

INSTANT POLYMER ACTIVATION

From 30-60 minutes to instant

REDUCTION

In Polymer Waste and Operation Time

- The Polyblend® Dry Polymer System went from taking 30-60 minutes to activate the polymer to instantly activating the polymer.
- The Polyblend® Dry Polymer System eliminated the need to manually weigh polymer, thus reducing operation time.
- The Polyblend® Dry Polymer System increased the efficiency of B&B Poultry's polymer usage and decreased polymer waste significantly.
- B&B Poultry achieved three primary objectives: 1)
 reduce operational costs, 2) increase operational efficiency and 3) remain environmentally responsible.

CONCLUSION

B&B Poultry got the quick results they were looking for. The upgrade to the Polyblend® Dry Polymer System addressed frustrations that they had for years with the inefficiencies that existed in their previous process.

B&B Poultry eliminated long waiting times related to polymer activation by using Polyblend® Dry Polymer, which is automatic and instantaneous.

They reduced operational costs overall, which supported their efficiency goals. and stayed true to a core value of the company: maintaining environmental compliance.

"The Polyblend® DP-110 really allows us to be more efficient in polymer dosing and helps ensure environmental compliance – a win-win."

Vince Marino, General Manager, B&B Poultry

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