

## Wastewater Treatment: New DAF

Dissolved Air Flotation (DAF) installation critical to Canadian meat plant operation.  
Stuart Ward of *Process Engineered Water Equipment* explains system design...

### Case Study

JD Sweid Foods manufactures a wide variety of meat products at its British Columbia Canada facility. The plant had a well worn dissolved air flotation (DAF) unit which needed replacement as part of an overall discharge improvement program. City officials were concerned the transition go smoothly as they were located just downstream. Working closely with their chemical vendor the design was finalized. This extra attention assured things went well. The entire 250 gallon per minute treatment system was shipped



**New Wastewater Facility**

on a single semi-truck. Included were the **HD<sup>2</sup>XLRator™ LS-250** DAF, mezzanine, pH buffer tank with mixer and control panel.

The DAF treatment system was located in a building which also housed an elevated internally fed screen, pumps, chemical feed units and sludge tanks. An extra room held the controls. The complete system tucked neatly into the existing facility and utilized a fraction of the space required by the old system. The operator was now able to walk around the DAF as well as not negotiate various floor level and chest high plumbing, conduit and other structures— safety first.



**DAF System Delivery**

### Customized Control

Careful system analysis was conducted with a PEWE site visit and interviews. All exiting components were identified and accounted for. A new PEWE **Command Control DX** panel provided enough I/O for all field devices with extra relays for an additional expansion. The ULc compliant panel featured a compact NEMA4 enclosure, with separate low and high voltage inputs, a disconnect, E-stop and full color touch-screen. The operator may enable the system in either AUTO or MANUAL modes with an all ON option or selectively by subsystem. It is quick and easy with a multi lingual inter-



**Command Control DX**



**High dry solids recovery**

### Final Results

PEWE Tech Services provided install start-up support (ISS) on-site until the system was up and running. Also programmed were several custom features to better match the PEWE **Command Control** with JD Sweid Foods in-house SCADA system. This provided for complete monitoring and remote control. With 15 years experience the wastewater operator took to the system like a duck to water. He easily managed



**Operator Satisfaction**

the transition and produced excellent results taking the total suspended solids (TSS) from 1449 ppm to only 39 ppm and FOG to nil immediately upon start-up.

### Pay Off

JD Sweid Foods new DAF consistently discharges reliably sustainable **Green** wastewater.



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