

### **(9) Use of Pressurized Ozone and Compressed Air Flotation with Membrane Filtration for Industrial Process Water Treatment at a Forest Products Facility**

In 18 months this project will demonstrate a membrane filtration system at a molded fiber paper mill. The process will reduce the amount of fresh water needed for mill operations. This project expands upon a complementary project, which focuses only on the ozone system in the plant stream. Integrating the ozone process with efficient membrane filtration will provide an overall efficiency not available with separate independent systems.

Total project cost: \$848,132

Funding request: \$380,750

Project Lead: New York State Energy Research and Development Authority

Project Participants: Michigan Department of Consumer and Industrial Services – State Energy Office; Pactiv Corporation

#### Progress in Past Quarter and Current Status:

During this quarter (Q11) progress which has occurred includes the following:

- \* Pactiv has begun operational and process optimization phase for the CAF Clarifier components of the system.
- \* Pactiv has begun operational and process optimization phase for the Krofta DAF components of the system.
- \* Pactiv has begun operational and process optimization phase for the Ozone Generator components of the system.
- \* Pactiv has installed the screw press with support pumps, piping and electrical components.
- \* Pactiv has initiated improvements to the RO unit, including some minor design work, with corresponding upgrades to the control, mechanical and electrical components associated with the RO unit.
- \* Pactiv has continued benchmark sampling of process water (to establish the “before” conditions).

#### Plans for Next Quarter

Trial work has begun on the CAF Clarifier, the Krofta DAF, and the Ozone Generator, and will take place in earnest during April. Process changes and optimizations will be monitored and evaluated via a comprehensive testing methodology. The resulting data will be used to make further changes and upgrades as required. The goal is to have these components running 24/7 as part of mill operations by the end of April. Pactiv will perform startup of the screw press for TDS sludge disposition from system and mill in April. The RO unit is scheduled for startup at the beginning of May, and then optimizations and full operations occurring in May. Pactiv will complete the benchmark sampling of process water (to establish the “before” conditions), as well as operation of the equipment in various modes and at various parameter levels and conduct associated sampling of process water (to determine the “after” conditions and use these analytical results to identify optimum operating conditions for the equipment). The project will be completed on time in accordance with the project completion date of June 30, 2007. A project final report will be prepared.

- \* Pactiv will submit an invoice to NYSERDA for payment of eligible project expenses, and NYSERDA will make prompt payment as appropriate.
- \* Pactiv will complete the development of Standard Operational Procedures and Job Safety Analysis documentation work and associated training.