

### **(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 (Q08) progress which has occurred includes the following:

- \* Pactiv has completed the pilot trial work and associated follow-up. Excellent results were obtained from the experimentation performed at Western Michigan University (WMU). Additional experiments were performed at the facility of a potential equipment vendor (ESTR) regarding their specialty equipment for ozone injection, and excellent results were obtained.
- \* Pactiv has completed the engineering design and equipment layout. Significant improvements to the process design (especially process equipment integration) have been developed and finalized based on the WMU pilot trial efforts and the experimentation at ESTR.
- \* Pactiv has defined the major pieces of equipment and identified vendor-quoted prices, and is preparing to issue purchase orders.
- \* Pactiv has initiated benchmark sampling of process water (to establish the “before” conditions).
- \* Pactiv has hired an intern (stationed at the Plattsburgh facility) to assist with this project, Sarah Fullerton, Chemical Engineering student from Western Michigan University.

#### Plans for Next Quarter

The project team will procure and install equipment. Significant construction is scheduled to occur in Q09. Pactiv will continue benchmark sampling of process water. Pactiv will meet with officials from the City of Plattsburgh to arrange approval for process changes and equipment start-up as it affects their Sewer Use Permit.