

(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 (Q07) NYSERDA has received a “no-cost” extension from STAC and has achieved a signed contract with the industrial partner Pactiv. The “no-cost” extension granted by STAC establishes a new project completion date of December 31, 2006.

Progress which has occurred to date includes the following:

- * Pactiv has conducted a series of mill-based process trial work to optimize the TDS air flotation operations.
- * Pactiv has demolished an old wash room area in order to make floor space available for the new equipment/systems.
- * Pactiv has conducted evaluations to determine process water/shower water cleanliness requirements for mill usage.
- * The principal investigator from one of the subcontractors identified in the proposal (Resource Recycling Systems, Inc.) has relocated to a new company (Cellulose Products and Services). This project will proceed with the subcontractor Cellulose Products and Services.

Plans for Next Quarter

The project team will embark on Task 1 “Mobilization and Planning” to provide appropriate research and project planning work, including a detailed project workscope for the project. Also, the team will embark on Task 2 “Pilot Trial Development” by conducting pilot trials using the full-scale pilot pressurized ozone system located at Western Michigan University’s Paper Industry Pilot Plant. The project team will generate a preliminary design layout, and use the preliminary design to identify major equipment which will undergo cost estimating by obtaining quotes from vendors.