

(6) Field Trial of a High Capacity Gas-Fired Paper Dryer

This project builds on a pilot scale dryer project funded by the U.S. Department of Energy. From the results of that project, a preliminary and final design will be completed, a gas-fired system constructed and a field trial conducted.

Total project cost: \$1,424,850

Funding request: \$634,850

Project Lead: Minnesota Department of Commerce, State Energy Office Project

Participants: Western Michigan University; Gas Technology Institute; Boise Paper Solutions; Groupe Laperriere & Verreault; Flynn Burner, Corp.

Patents

None.

Presentations/Publications

There was no presentation or publication made during the reported quarter.

Follow-up to Q1-2005 report:

Technical update "Dryer Design Boosts Capacity by 15-20% and Cuts Energy Costs" was published by Chemical Engineering Progress (CEP Magazine, April 2005, pages 11-13).

Progress in Past Quarter and Current Status

Milestones:

| | <u>Date</u> |
|--|-------------|
| Draft full-scale GFPD design developed | 12/31/04 |
| Final GFPD design completed | 06/30/05 |
| GFPD components fabricated, purchased, assembled | 12/31/05 |
| Baseline test/auditing completed | 12/31/05 |
| Field trial completed | 06/30/06 |
| Final Technical Report | 08/20/06 |

The following activities were performed during the reported period:

- Sub-contracts (FBC, GL&V) for GFPD design, engineering, fabrication and factory testing were executed
- Field Test Agreement was revised per partners' review and sent for signatures
- License Agreement was drafted up and sent to GL&V for consideration and comments
- Full-scale GFPD was designed and ready for the incorporation into LPI drying section
- Design review meeting was hold on July 13, 2005 at LPI mill in Becker, MN
- Multiple communications were made to secure additional funding for the second drum dryer

Plans for Next Quarter

- Finalize and approve the entire GFPD system design and specification
- Execute the Field Trial Agreement
- Provide necessary engineering support to GL&V and FBC
- Draft a measurement/data collection system and Field Trial plan/matrix for partners' review