

(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

None

Progress in Past Quarter and Current Status

<u>Milestones:</u>	<u>Date</u>	<u>Status</u>
Draft full-scale GFPD design developed	12/31/04	done
Final GFPD design completed	06/30/05	done
Baseline test/auditing completed	12/31/05	done
GO/NO GO (contract modification approved by STAC)	09/27/06	done

The following dates were revised per approved contract modification:

GFPD components fabricated, purchased, assembled	04/30/07	in progress
Data collection completed	05/31/07	
Final Technical Report	06/30/07	

The following activities were performed during the reported period:

- Subcontracts with GL&V and FBC were modified per revised quotes and corresponding amendments were executed
- Control/measurement approach for laboratory full-scale installation was finalized
- Combustion system (burner) was modified per modified GFPD layout (see Figure 1 below).
- GFPD system engineering was completed, drawings were reviewed and approved, and fabrication was initiated (selected drawings of the GFPD system design are enclosed in Appendix).

During the reported quarter GTI has also performed multiple communications with project partners, papermakers and gas companies to further support the GFPD development and technology showcase.

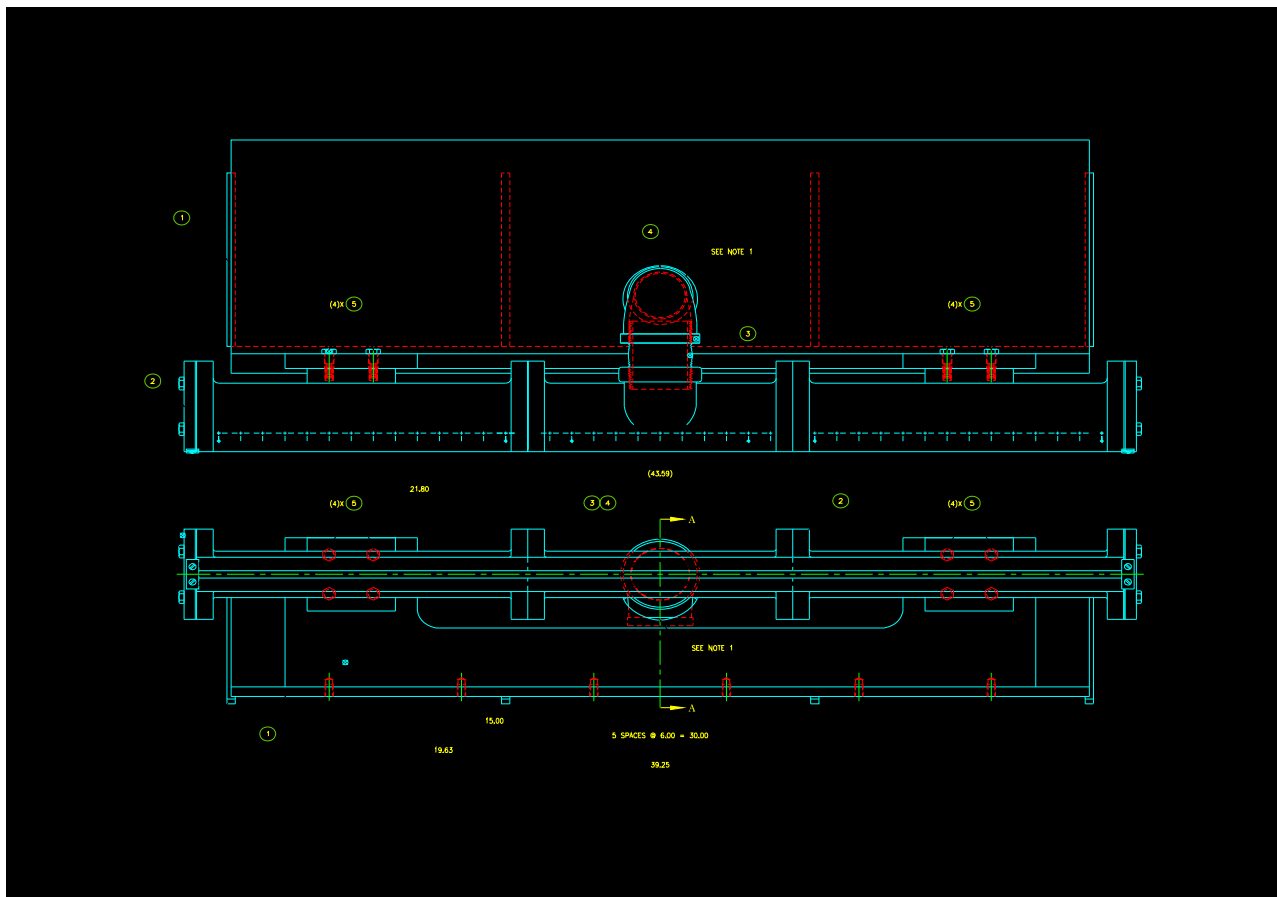


Figure 1. Combustion system (burner) and exhaust scoop assembly [DWG # A4096-00-0004D]

Plans for Next Quarter:

- Complete GFPD fabrication and factory testing
- Complete data collection and analysis
- Perform showcase to paper companies
- Final reporting