

Jupiter Oxygen Corporation

**The Clearwater Conference in Florida, U.S.A.
International Technical Conference on Coal Utilization & Fuel Systems
April 17 - 21, 2005**

The Next Generation of Oxy-Fuel Boiler Systems

Tom Ochs²
Alex Gross¹
Brian Patrick¹
Danylo Oryshchyn²
Cathy Summers²
Paul Turner²

¹Jupiter Oxygen Corporation
²USDOE/Albany Research Center

e-mail: m_schoenfield@jupiteroxygen.com

ABSTRACT:

Research in the area of oxy-fuel combustion which is being pioneered by Jupiter Oxygen Corporation combined with boiler research conducted by the USDOE/Albany Research Center has been applied to designing the next generation of oxy-fuel combustion systems. The new systems will enhance control of boiler systems during turn-down and improve response time while improving boiler efficiency.

These next generation boiler systems produce a combustion product that has been shown to be well suited for integrated pollutant removal. These systems have the promise of reducing boiler foot-print and boiler construction costs. The modularity of the system opens the possibility of using this design for replacement of boilers for retrofit on existing systems.