

Council of Industrial Boiler Owners

19th Fluidized Bed
Combustion Conference
2006

May 8-10, 2006
Hershey, Pennsylvania, USA

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571
www.proceedings.com

ISBN: 978-1-60423-595-1

Some format issues inherent in the e-media version may also appear in this print version.

Copyright by the Council of Industrial Boiler Owners.
All rights reserved.

For permission requests, please contact the Council of Industrial Boiler Owners at the address below.

Council of Industrial Boiler Owners
6035 Burke Centre Parkway, Suite 360
Burke, VA 22015
Phone: 703-250-9042
Fax: 703-239-9042
cibo@cibo.org

FLUIDIZED BED COMBUSTION XIX CONFERENCE

May 8 - 10, 2006

TECHNICAL SEMINAR - SELECTED PAPERS

1 Conference Summary

Carl R. Bozzuto, Alstom Power, Inc.

27 FUNDAMENTALS OF FBC COMBUSTION

James (Jim) Desellem, Babcock & Wilcox Company

REVIEW OF CONCURRENT FORUM DISCUSSIONS

Informal Owners' Only Forum

Informal Equipment and Service Suppliers' Only Forum

67 OWNER SURVEY RESULTS

Presentation of 2005 FBC Owners' Survey & Benchmarking Results

Jack A. Fuller, West Virginia University

ENERGY AND ENVIRONMENTAL ISSUES IMPACTING BOILERS

85 Environmental Regulations Affecting For Fluidized Bed Boilers

J. Russell Bailey III, Trinity Consultants, Inc.

118 Overview of FERC Activities Regarding PURPA Repeal, Combined Heat & Power, Distributed Generation and PUCHA Repeal

Lauren W. Laabs, CH2M Hill

MEETING TODAY'S AND TOMORROW'S CHALLENGES WITH FBC TECHNOLOGY

131 Permitting CFB Units in Today's Environment

Robert G. Fraser and William C. Campbell III, ENSR International

152 An Overview of Activities of Penn State Evaluating the Concept of Utilizing Coal-Fired Boilers for Carcass Disposal

Bruce G. Miller, Penn State University
Linda A. Detwiler, Virginia-Maryland Regional College of Veterinary Medicine

174 Ash Cooling in Fluid Bed Boilers: Can Ash Coolers take the Heat?

Charles Wagner, Burns & Roe Enterprises, Inc.
Tom Alberts, Consultant

168 Ling Rotating Ash Cooler Solution for CFB Ash Cooling

Guanglong Guo and Shifu Kang, Songling Power Environmental Equipment Ltd.
(SPEEL) Sean Li, Foster Wheeler

221 **Bechtel's CFB Projects -- Lessons Learned and Application to the Greene Energy Resource Recovery Project**

Don Koza, Bechtel Power Corporation

233 **Combustion Improvement Multi-Pollutant Reduction**

Jay Crilley, Mobotec USA Inc.

280 **Economizer Design Change and Replacement**

Ian Pullen, Boiler Tube Company

302 **Heat Exchanger Retrofit and Upgrade for Improved Performance**

Philip Jones, Cogentrix, Scrubgrass Generating Facility

330 **FBC Update + Industrial Gasification**

Donald L. Bonk, DOE/PRBC Environmental Energy Technology

NATIONAL ACADEMY'S RCRA ASH FINAL REPORT DISCUSSION PANEL

Gary L. Merritt, Inter-Power/AhlCon Partners, L.P.

358 **Managing Coal Combustion Residues in Mines**

Robin M. Ridgway, Purdue University

381 **Synopsis of NAS' 2006 Final Report; Managing Coal Combustion Residues in Mines**

Deborah Dale, US DOI Office of Surface Mining
Truett DeGeare, US EPA Office of Solid Waste

401 **Coal Ash Beneficial Use in Mine Reclamation and Mine Drainage Remediation in Pennsylvania**

Roger Hornberger, Pennsylvania DEP

460 **Use of Coal Ash For Mine Reclamation**

Paul Ziemkiewicz, PhD, WV Water Research Institute

524 **Plant Tour Overview - NEPCO Cogeneration Facility and Ash Reclamation**

Ed Missal, Suez-NEPCO Cogeneration Facility