

# FY10 Advanced Integrated Gasification Combined Cycle (AIGCC) Peer Review

Pittsburgh Airport Marriott  
December 7-11, 2009



## AGENDA



### MONDAY, DECEMBER 7, 2009 - SALON A&B

- 7:30 - 8:30 a.m. Registration - **FOYER SALON A&B**
- 8:30 - 9:30 a.m. Peer Review Panel Kick Off Meeting - Open to NETL and ASME staff only
- Review of ASME Process - Michael Tinkleman/Ross Brindle, ASME
  - Role of Panel Chair - Daniel J. Kubek, ASME Peer Review Panel
  - Meeting logistics/completion of forms - Charles Schmidt/Nicole Ryan/Justin Strock, TMS
  - Role of NETL - José Figueroa, NETL
- 9:30 - 10:15 a.m. Overview - Open to NETL and ASME staff only
- AIGCC Technology Manager – Gary Stiegel, National Energy Technology Laboratory
- 10:15 - 10:30 a.m. **BREAK - Foyer Salon A&B**
- 10:30 - 11:15 a.m. **01 - Project # OSAP-GS-10F-0189T / DE-NT0005816** - Coal Gasification Technology Pathways:  
Volume II -  
*David Gray, Noblis*
- 11:15 - 11:45 a.m. Q&A
- 11:45 - 12:25 p.m. Discussion, evaluation, and written comments
- 12:25 - 1:25 p.m. **Lunch (on your own)**
- 1:25 - 2:55 p.m. **02 - Project # FT40343** - Development of ITM Oxygen Technology for Integration in IGCC and  
Other Advanced Power Generation Systems -  
*Phillip A. Armstrong, Air Products and Chemicals, Inc.*
- 2:55 - 3:35 p.m. Q&A
- 3:35 - 4:15 p.m. Discussion, evaluation, and written comments

### TUESDAY, DECEMBER 8, 2009 - SALON A&B

- 7:00 - 8:00 a.m. Registration - **FOYER SALON A&B**
- 8:00 - 9:15 a.m. **03 - Project # FE0000489** - High Temperature Syngas Cleanup Technology Scale-Up and  
Demonstration Project -  
*Raghubir Gupta, Research Triangle Institute*
- 9:15 - 9:55 a.m. Q&A
- 9:55 - 10:35 a.m. Discussion, evaluation, and written comments
- 10:35 - 10:50 a.m. **BREAK - Foyer Salon A&B**

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- 10:50 - 11:35 a.m. **04 - Project # NT42459** - Integrated Warm Gas Multicontaminant Cleanup Technologies for Coal-Derived Syngas -  
*Brian S. Turk, Research Triangle Institute*
- 11:35 - 12:05 p.m. Q&A
- 12:05 - 12:45 p.m. Discussion, evaluation, and written comments
- 12:45 - 1:45 p.m. **Lunch (on your own)**
- 1:45 - 2:30 p.m. **05 - Project # NT42458** - Development of an Integrated Multicontaminant Removal Process Applied to Warm Syngas Cleanup for Coal-Based Advanced Gasification Systems -  
*Howard S. Meyer, Gas Technology Institute*
- 2:30 - 3:00 p.m. Q&A
- 3:00 - 3:40 p.m. Discussion, evaluation, and written comments
- 3:40 - 3:55 p.m. **BREAK - FOYER SALON A&B**
- 3:55 - 5:10 p.m. **06 - Project # NT42469** - Scale-Up of Hydrogen Transport Membranes for IGCC and FutureGen Plants -  
*Douglas S. Jack, Eltron Research & Development, Inc.*
- 5:10 - 5:50 p.m. Q&A
- 5:50 - 6:30 p.m. Discussion, evaluation, and written comments

## WEDNESDAY, DECEMBER 9, 2009 - SALON A&B

- 7:00 - 8:00 a.m. Registration - **FOYER SALON A&B**
- 8:00 - 9:15 a.m. **07 - Project # NT42237** - Development of Technologies and Capabilities for Coal Energy Resources -  
*Timothy Saunders, Pratt and Whitney Rocketdyne, Inc.*
- 9:15 - 9:55 a.m. Q&A
- 9:55 - 10:35 a.m. Discussion, evaluation, and written comments
- 10:35 - 10:50 a.m. **BREAK - FOYER SALON A&B**
- 10:50 - 11:35 a.m. **08 - Project # NT42758** - Co-Production of Electricity and Hydrogen Using a Novel Iron-Based Catalyst -  
*Jason P. Trembly, Research Triangle Institute*
- 11:35 - 12:05 p.m. Q&A
- 12:05 - 12:45 p.m. Discussion, evaluation, and written comments
- 12:45 - 1:45 p.m. **Lunch (on your own)**
- 1:45 - 2:30 p.m. **09 - Project # FT40685** - Single-Crystal Sapphire Optical Fiber Sensor Instrumentation -  
*Anbo Wang, Virginia Polytechnic Institute & State University*
- 2:30 - 3:00 p.m. Q&A
- 3:00 - 3:40 p.m. Discussion, evaluation, and written comments

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## WEDNESDAY, DECEMBER 9, 2009 - SALON A&B

- 3:40 - 3:55 p.m.      **BREAK - FOYER SALON A&B**
- 3:55 - 4:40 p.m.      **10 - Project # OSAP-401.01.13** - GHG Reductions in the Power Industry Using Domestic Coal and Biomass -  
*Michael Matuszewski, National Energy Technology Laboratory*
- 4:40 - 5:10 p.m.      Q&A
- 5:10 - 5:50 p.m.      Discussion, evaluation, and written comments

## THURSDAY, DECEMBER 10, 2009 - SALON A&B

- 7:00 - 8:00 a.m.      Registration - **FOYER SALON A&B**
- 8:00 - 8:45 a.m.      **11 - Project # ORD-10-220615.1 / ORD-10-220663.9** - Fuel Flexible Advanced Energy Systems for the Production of Syngas -  
*Bryan Morreale, National Energy Technology Laboratory*
- 8:45 - 9:15 a.m.      Q&A
- 9:15 - 9:55 a.m.      Discussion, evaluation, and written comments
- 9:55 - 10:10 a.m.      **BREAK - FOYER SALON A&B**
- 10:10 - 11:25 a.m.      **12 - Project # ORD-09-220677-T02** - Dynamic Simulation and Control of Advanced Power Generation Systems -  
*Stephen E. Zitney, National Energy Technology Laboratory*
- 11:25 - 12:05 p.m.      Q&A
- 12:05 - 12:45 p.m.      Discussion, evaluation, and written comments
- 12:45 - 1:45 p.m.      **Lunch (on your own)**
- 1:45 - 2:30 p.m.      **13 - Project # NT43094** - Development of Model Based Controls for GE's Gasifier and Syngas Cooler -  
*Aditya Kumar, General Electric Global Research*
- 2:30 - 3:00 p.m.      Q&A
- 3:00 - 3:40 p.m.      Discussion, evaluation, and written comments
- 3:40 - 3:55 p.m.      **BREAK - FOYER SALON A&B**
- 3:55 - 4:40 p.m.      **14 - Project # OSAP-401.01.14** - Cost and Performance Baseline for Fossil Energy Plants - Volume 3: Low Rank Coal and Natural Gas to Electricity -  
*Jeffrey Hoffmann, National Energy Technology Laboratory*
- 4:40 - 5:10 p.m.      Q&A
- 5:10 - 5:50 p.m.      Discussion, evaluation, and written comments

## FRIDAY, DECEMBER 11, 2009 - SALON A&B

- 7:00 - 8:00 a.m.      Registration - **FOYER SALON A&B**

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## **FRIDAY, DECEMBER 11, 2009 - SALON A&B**

- 8:00 - 8:45 a.m.      *15 - Project # NT04397* - Arrowhead Center to Promote Prosperity and Public Welfare in  
New Mexico -  
*James T. Peach, New Mexico State University*
- 8:45 - 9:15 a.m.      Q&A
- 9:15 - 9:55 a.m.      Discussion, evaluation, and written comments
- 9:55 - 10:10 a.m.      **BREAK - FOYER SALON A&B**
- 10:10 - 12:00 p.m.      Overall meeting Wrap-up  
10 minutes/Reviewers x 7