ERC – 2005 SYMPOSIUM

Low Emissions Combustion Technologies for Future IC Engines

June 8-9, 2005
1800 Engineering Hall
University of Wisconsin – Madison
Madison WI

Wednesday June 8

9:00 AM Welcome
Christopher Rutland, Engine Research Center

9:15 AM Keynote Address (Session Chair: Dave Foster)
Tomorrow’s Propulsion System Portfolio – The Challenges and Opportunities for the Internal Combustion Engine
Gary Smyth
General Motors Research and Development Center

10:00 AM Refreshment Break

10:30 AM Session I (Session Chair: Rolf Reitz)
Beyond 2010 – What Next?
Kevin Bruch
Caterpillar

Low Emissions Combustion – One Path Forward
Thomas Ryan
Southwest Research Institute

Investigating the combustion and aftertreatment systems with CFD tools
Yong Yi
Fluent Inc.

12:00 PM Lunch

1:30 PM Session II (Session Chair: Pat Farrell)
Analysis Led Design for Engine System Development to meet US2010 Emission Standards
Don Stanton
Cummins Inc.

Gasoline Engine Performance and Emissions - Future Technologies and Optimization
Paul Whitaker
Ricardo

Meeting the Boosting Challenges of Future Diesel Engines
Steve Arnold
Garrett / Honeywell
3:00 PM  Refreshment Break

3:30 PM  Session III (Session Chair: Jaal Ghandhi)

International’s Approach to Clean Diesel Engines
Rodica Baranescu
Navistar / International

Combustion, Aftertreatment and Control – Key Elements for Emission Reduction of US HSDI Diesel Engines
Ulrich Pfahl
AVL

Ignition Improvements to Support High-efficiency and Turbulent Natural Gas Combustion
Corey Honl
Waukesha Engine

6:00 PM  Evening - Symposium dinner banquet (Session Chair: Kevin Hoag)
Edgewater Hotel, 666 Wisconsin Avenue

Social hour: 6:00 PM

Dinner: 7:00 PM

Rethinking the Automotive Powerplant: Clean Combustion Engines
David Haugen, PhD., P.E.
Manager, Technology Development Group
Deputy Director, Advanced Technology Division
National Vehicle and Fuel Emissions Laboratory – U.S. EPA
Thursday June 9

8:30 AM  **Keynote Address** (Session Chair: Dave Foster)
Improving the Spark-Ignition Engine
John B. Heywood
Sun Jae Professor of Mechanical Engineering
Director, Sloan Automotive Laboratory
MIT

9:15 AM  **Session IV** (Session Chair: Scott Sanders)
Integrated Engine and Aftertreatment System Technology for 2010 Heavy-duty Emissions Regulations
Rakesh Aneja
Detroit Diesel Corporation
A Systems Approach to Meet Tier 2 Bin 5
Dean Tomazic
FEV Engine Technology Inc.

10:15 AM  **Refreshment Break**

10:45 AM  **Session V** (Session Chair: Rolf Reitz)
Low Emission IC Engines Development at Ford Motor Company
George Davis
Ford Motor Company
Overview of DOEs Combustion Engine R&D Program
Gurpreet Singh
US Department of Energy
A Second Law Perspective on the Critical Aspects of IC Research for Low Emissions Gasoline Engines
Walt Weissman
ExxonMobil

12:15 PM  Lunch

1:30 PM  **ERC Lab Tour**

3:00 PM  Adjournment