

2002



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**Final
Program**



AUTOMOTIVE FUEL SYSTEMS

2002

The only forum of its kind, the third annual AUTOMOTIVE FUEL SYSTEMS 2002 Conference will bring executives together from all over the world with a common purpose – to improve fuel system performance and efficiency.

Program sessions will be conducted by the world's leading experts. You'll learn from these practicing professionals in every key area of fuel systems:

- Government regulations and their impact on design and fuels
- Fuel developments and alternative fuels
- Key components and materials
- Emission control systems

To sum up, the program will be a well-balanced mix of technical, government and business issues. It's specifically designed to give you the information you need to meet your CAFE, LEV II and ZEV GOALS...while helping you enhance system performance.

Please note that conference proceedings will not be available.

AGENDA

7:00 – 8:15 a.m. Registration and Continental Breakfast

8:15 a.m. OPENING REMARKS –
Ford Motor Company (U.S.A.)

SESSION 1: GOVERNMENT REGULATIONS AND FUEL COMPOSITIONS

8:30 a.m.

California's Zero Emission Vehicle Program

California Air Resources Board (U.S.A.)

Initially adopted in 1990, California's Zero Emission Vehicle (ZEV) Program is entering the home stretch of implementation. With requirements beginning in 2003, California is eagerly awaiting the introduction of a wide variety of new zero and near-zero emission vehicles. The regulation now comprises a family of vehicle technologies that spans near-zero emitting gasoline "partial zero emission vehicles", through hybrid electric, alternative fuel and carbon based fuel cell vehicles, to the gold standard of the program, zero emitting battery electric and hydrogen fuel cell vehicles.

9:00 a.m.

Changes in Future Automotive Fuels

BP (U.S.A.)

Near term fuel changes have been mandated by the US EPA. These changes will affect both gasoline and diesel fuel over the next three to seven years. Over the longer term, more uncertainty exists for new powertrains including fuel cells and the various fuel options to run them.

9:30 a.m. Mid-Morning Break

SESSION 2: FUEL LINE AND HOSE DEVELOPMENTS

10:00 a.m.

Innovative Fuel Lines

Veritas AG (Germany)

Innovative fuel line and hose constructions together with connector technologies will be presented. These will be shown to meet such evolving performance requirements as LEV II and high temperature hose for direct injection engines.

10:30 a.m.

Fuel Lines and Components - Performance to Low Emission Targets

TI Group Automotive Systems (U.S.A.)

Fuel line system design, targets for low emissions, quick connector and flexible multi-layer tubing component technology is first discussed. The remainder of the presentation will focus on the fuel line joint emissions performance between flexible and rigid tubing, and from quick connectors.

11:00 a.m.

Emissions from Fuel Handling Tubing

Degussa (Germany)

Various permeation tests will be discussed together with the progress made on correlating the results. Hydrocarbon emissions from joints, especially from hybrid plastic/metal systems will be evaluated. A consideration will be given to the cost/performance aspects in systems development.

11:30 a.m.

Development of an Ultra-Low Permeation, Halogen-Free, Multi-Layer Fuel Tube

Nitta Moore Company (Japan)

A recently commercialized, ultra-low permeation, low cost halogen-free multi-layer fuel line will be introduced that has a PBN barrier. It will be shown how this construction meets all the relevant fuel line performance requirements.

12:00 – 1:00 p.m. Lunch

SESSION 3: FUNCTIONAL COMPONENTS

1:00 p.m.

Zero Leak Technology® Fuel Fittings

Pilot Industries (U.S.A.)

A family of fluid line connection options known collectively as Zero Leak Technology® fittings have been developed for fuel systems. Current users include a number of GDI and Common Rail diesel powertrain applications. Designs have also been created for larger diameter sizes, such as PZEV fuel filler pipes.

1:30 p.m.

Evaporative Natural Vacuum (ENV) - a Low Cost Evaporative Leak Monitor

Siemens VDO (Canada)

Automotive emissions legislation has mandated evaporative system integrity tests to detect leaks greater than 0.020" (0.5mm) diameter hole equivalent. As a result, methods employed to detect these leaks must be very sensitive and can be costly. The Evaporative Natural Vacuum (ENV) device departs from conventional detection methods as a strategy to lower the system costs.

2:00 p.m.

Fuel System and Electrostatic Charge: An Update

Degussa (U.S.A.)

The Recommended Practice that covers the electrostatic charge situation encountered in fuel systems (SAE J1645) is being updated. The presentation is a summary of the kinds of changes that will be made along with a discussion of some of the reasons behind these modifications.

2:30 p.m.

Performance of Metallic Fuel Filler Pipes for P-ZEV Applications

Kautex Textron (Canada)

To meet the challenges of future emissions regulations, significant development resources have been expended in the area of metallic fuel filler technology especially for P-ZEV applications. A fifteen year durability protocol will be outlined that is used to validate long-term corrosion performance of various technologies. Emissions durability between the fuel cap and the filler pipe interface will also be discussed.

3:00 p.m. Afternoon Break

3:30 p.m.

Plastic Filler Pipes: A Solution for Low-evaporative Emissions Systems

Inergy Automotive Systems (France)

Advances in design are opening new opportunities for plastic filler pipes to contribute to the achievement of very low evaporative emissions while offering excellent behavior in crash situations, due to high flexibility. New processes are also being developed to optimize the production costs of such pipes.

SESSION 4: FUEL TANKS FOR THE NEW CENTURY

4:00 p.m.

The Hydrocarbon Permeation Behavior of a Plastic Fuel Tank

Visteon Corporation (U.S.A.)

Testing Service Group (U.S.A.)

The study of hydrocarbon permeation behavior of plastic fuel tanks has become increasingly important due to more stringent regulatory requirements (EPA, CARB, EEC, ECC), worldwide environmental concerns, and the signing of the 1997 Kyoto protocol. This study will show the variety of variables that impact the test results.

4:30 p.m.

Steel Battles Plastic for Fuel Tank Applications – Forming, Joining and Corrosion Resistance

ThyssenKrupp Stahl AG (Germany)

Dortmunder OberflächenCentrum (Germany)

The Magni Group (U.S.A.)

Challenges to steel as a fuel tank material are to achieve a minimum of fifteen years of corrosion resistance with a cost effective product demonstrating weight and complex shapes comparable to plastic. New forming, joining and coating technologies will be described that are enabling steel tanks to meet these requirements.

5:00 p.m.

New Blowmolded Tank Constructions to Achieve Low Emissions Targets

TI Group Automotive Systems (U.S.A.)

The first portion of this presentation will contain information on the Ship in the Bottle (SIB) construction for blowmolded fuel tanks targeted to LEV II emissions levels. This construction inserts a pre-tested fuel delivery and vapor control assembly into the tank at the time of the blowing process. The second portion of the presentation will discuss the Contained Vapor Recovery (CVR) fuel tank construction. This is targeted at reaching P-ZEV compliant evaporative emission levels with plastic fuel tanks.

5:30 p.m. Cocktail Reception

ABOUT YOUR ORGANIZER...

Established in July 1992 by Dr. Joel Kopinsky and Ms. Mitra O'Malley, The ITB Group serves suppliers and original equipment manufacturers (OEMs) in the global automotive market. By combining strong technical and business skills, The ITB Group helps senior managers develop and implement strategies that provide sustainable long-term competitive advantages.

The ITB Group's core competencies are:

International Presence:

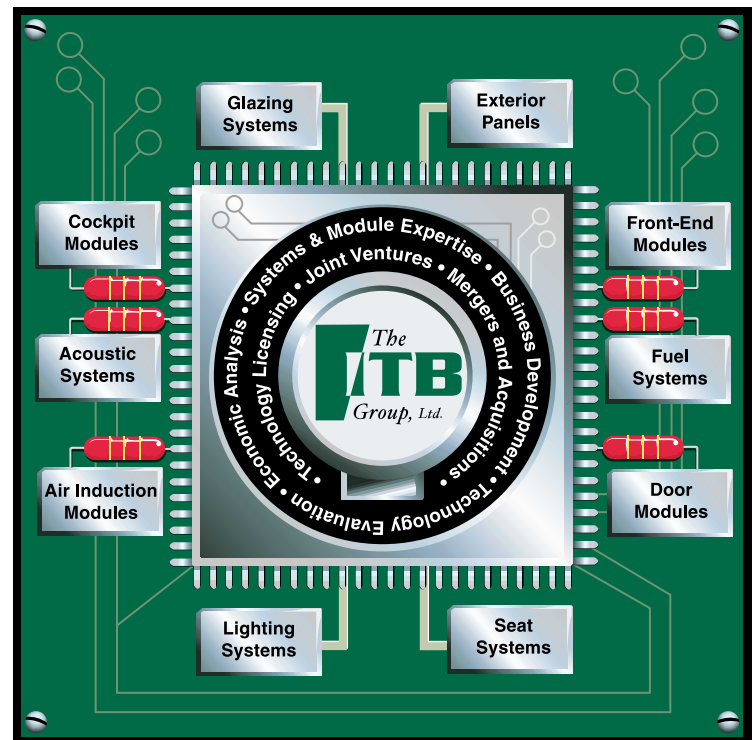
The firm's presence in North America, Europe and the Far East provides a solid basis for automotive consulting assignments. In each of these regions ITB has established a significant network of clients and industry contacts.

Technical Expertise:

Advanced engineering degrees and over 30 years of combined industry experience provide the firm's consultants with the relevant backgrounds to understand difficult technical issues that face their clients. Such issues may be related to product design, materials, primary and secondary processes or vehicle assembly.

Business Recognition:

Widespread marketplace recognition and business experience enable the firm's consultants to interact with key automotive participants around the world. Participants include senior level managers, automotive research and design engineers, sales and marketing personnel and government officials.



EXHIBITORS

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Basell Polyolefins
BP Solvay Polyethylene
BEKO Technologies
DuPont Automotive
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