



## **Fuels for Advanced Combustion Engines Group**

**~Mission Statement and Scope of Work~**

### **MISSION**

The mission of the Fuels for Advanced Combustion Engines (FACE) Group is to recommend sets of test fuels well suited for research so that researchers evaluating advanced combustion systems may compare results from different laboratories using the same set (or sets) of fuels for consistency. Examples of advanced combustion systems are low temperature combustion (LTC), homogenous charge compression ignition (HCCI), high efficiency, and clean combustion (HECC).

### **SCOPE OF WORK**

#### **ACTIVITIES**

The activities of the FACE Group shall be focused on pre-competitive research. Its members shall determine the fuel properties and compositional parameters most likely to influence the many relevant aspects of advanced combustion systems, and then recommend fuel sets suitable for testing fuel effects in a specific advanced technology. This activity may include design of experiments on fuel properties and compositions to ensure that these fuel sets cover the operating ranges needed for research. The group will not stock or sell these fuels. The work product of the FACE Group will consist of a detailed description of its recommended set (or sets) of research fuels. The group's matrix of research fuels (i.e., fuel set) will span both the gasoline-based and diesel-based property ranges. Single chemical fuels and simple blends of pure fuel chemicals will also be considered to offer ease in fundamental modeling and in reproducing research fuels.

The FACE Group will disseminate detailed descriptions of these research fuels to encourage tie points among advanced-combustion system research projects conducted at a wide range of institutions. Refining or improving the fuels or fuel sets in order to develop or confirm optimal performance with an advanced combustion system is beyond the scope of work of the FACE Group; such work would constitute competitive research which CRC and the FACE Group will not perform.

#### **REPRESENTATION OF FUELS AND FUEL SETS**

The FACE Group's recommendation of research fuels is not an implied or explicit recommendation or endorsement of the adoption of any of these research fuels as implied or explicit fuel standards. The research fuels devised will not necessarily be restricted to 'the commercial range' of gasoline or diesel fuel properties or composition, and will not represent, or be represented as, commercial fuel standards. There will be no representation by either the FACE Group or CRC that the fuels and fuel sets recommended for testing will be commercially available, economic to produce, represent

a future fuel that will be available for commerce, or be representative of any current or future fuel.

### **MEMBERSHIP**

The FACE Group will be composed of volunteers from industry, government and academia, at the invitation of the chairs. Since this is a CRC-sponsored group associated with fuels, the chair (or at least one of the co-chairs) will be from an Energy Company member of CRC. Its membership will include at least three researchers from the fuels industry, as well as members representing the engine, automobile and emission control technology manufacturers, academia, and the US Department of Energy National Laboratories.

### **CONFIDENTIALITY AND INTELLECTUAL PROPERTY**

The FACE Group is a working group of the Coordinating Research Council (CRC) Advanced Vehicle/Fuel/Lubricants (AVFL) Committee. As with existing CRC groups, the Intellectual Property (IP) and confidentiality rules of the CRC will apply to any work within this group. The CRC AVFL Committee will have the sole authority to stop or redirect the activities of the FACE Group if any violation of its IP policies is deemed to have taken place. It is understood that neither CRC nor the FACE Group serves as a standard-setting organization.

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