

May 2, 2006

To: Automotive Industry Representatives
Subject: Replacement Refrigerants for Mobile Air Conditioning to meet EU regulations

The mobile A/C industry over the last twenty-five years has required transformation to address environmental issues. Currently there is a global refrigerant, HFC134a that is used in most mobile A/C systems produced worldwide.

In 2005, the European Union passed legislation that requires new vehicle product lines sold after 2011 to use a refrigerant other than HFC134a. This regulation requires that these new vehicles use a refrigerant that has a Global Warming Potential (GWP) of less than 150. Currently, most OEM's plan to meet the European requirements with a different refrigerant, but plan to continue the use of HFC134a in the rest of the world. This will result in more complex systems globally with multiple refrigerants. This will also result in a complex production problem for vehicle manufacturers that export vehicles throughout the world. Both the manufacturing facilities and the infrastructure required to service the vehicles for the consumer will need to change.

In recent weeks several chemical companies have released information that they have developed new replacement refrigerants that will meet the European requirements. Industry cooperation during the conversion from CFC12 to HFC 134a in the late 1980's enabled one industry solution at the lowest cost to the overall industry. With today's economic climate, it is even more important to get to one solution at the lowest possible cost and in the shortest time to meet the EU regulations. The SAE Cooperative Research Program (CRP) will be the most expeditious and cost effective method for industry to determine if there is a new refrigerant that will meet the A/C system design requirements for performance, durability, and overall safety.

The SAE Interior Climate Control Standards Committee has conducted several CRP projects addressing alternate refrigerant performance and efficiency issues. The members and working groups of the SAE Interior Climate Control Standards Committee represent the experts of all sectors of the mobile air conditioning industry. At their April 2006 SAE Congress meeting in Detroit, they identified a need for a common refrigerant that meets environmental needs and is cost effective. Furthermore, they suggested that a new SAE CRP project be established to evaluate any proposed alternative refrigerants.

The SAE CRP would address the investigation of any new alternate refrigerant in the following areas.

- Risk and toxicology assessment
- Materials compatibility testing
- System development and optimization
- Service and Leakage impacts

Since time is of the essence, it is requested that the vehicle manufacturers and system suppliers respond with a commitment to provide financial support for this SAE CRP to investigate a replacement refrigerant for future mobile air conditioning systems.

Background information on the proposed project and financial support response instructions can be found in the letters that are attached. Additional information on the SAE CRP and project timetable is available from SAE by contacting Gary Pollak, gary@sae.org.



Greg Henderson
SAE President



Ward Atkinson
Chair, ICC

Cc: Motor Vehicle Council
Enclosures