

## **National Highway Traffic Safety Administration (NHTSA) Hydrogen Fuel Cell Vehicle Rulemaking Activity**

- **Research and Development (R&D):** It is the responsibility of NHTSA to promulgate the necessary Federal Motor Vehicle Safety Standards (FMVSS) for vehicles and fuel systems. NHTSA will collect and evaluate data, in cooperation with DOE, on the safety performance of the whole vehicle and, where applicable, on component level for the power train, vehicle fuel container, and delivery system. This will include testing the effectiveness of the safety systems, i.e. leak detection, fire exposure and road hazards. NHTSA will also coordinate with EPA on the vehicle refueling subsystem, its interface with the dispenser, and on the development of appropriate CAFE-equivalent ratings.

To facilitate Research, Development & Deployment (RD&D) and data collection, NHTSA will review and provide appropriate exemptions to hydrogen-powered prototype vehicles. In parallel to industry demonstrations, NHTSA will conduct a broad range of component and system level destructive and non-destructive tests and evaluations. Demonstration data, and early NHTSA R&D, will serve as the basis for proposed rulemaking. As vehicle design concepts mature, NHTSA anticipates an increase in availability of vehicles for crash testing. The crash testing will validate models, highlight areas for further R&D, and support the rulemaking process, and final promulgation of any FMVSS.

In 2004, NHTSA published in the Federal Register its Hydrogen Research Plan that outlines activities over the next four years to conduct the necessary testing and evaluations leading to the development of safety regulations for hydrogen vehicles.

- **Rulemaking and International regulation:** Through its participation in the United Nations World Forum for the Harmonization of Vehicle Regulations (WP.29), NHTSA is one of three co-sponsors of the effort to develop a Global Technical Regulation (GTR) for hydrogen fuel cell vehicles. NHTSA's role in this forum will help ensure the development of comprehensive, whole vehicle-focused and performance-based regulations. Once the GTR is completed, NHTSA will start the GTR adoption process to implement its requirements into the appropriate FMVSS. In 2004, The WP.29 group of experts, under the leadership of Germany, Japan and the United States, has reached an agreement on a road map, which outlines the development process. The main focus of the group will be on ensuring the integrity and safety of the components, including on-board storage containers, and the whole fuel system.

Under the road map, the GTR will address both environmental and safety concerns, including crashworthiness considerations. In order to effectively implement the roadmap, two sub-groups, environmental and safety, were formed under the Working Party on Passive Safety (GRSP) and the Working Party of Experts on Pollution and Energy (GRPE), respectively.

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Ask Martin to include a paragraph describing current work and expected deliverable

The first meeting of the safety sub-group was conducted in October 2005. The main purpose of the meeting was to exchange technical information and to obtain a better understanding of the Japanese National HFCV regulation. The environmental sub-group will conduct its kick-off meeting in January 2006. US EPA will participate in the environmental group.

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