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International Projects: Global Technical Regulations

Catherine Padró

Los Alamos National Laboratory

Institute for Hydrogen and Fuel Cell Research

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Project ID# SA3

LA-UR-06-2808

Overview

- Timeline
  - Start: 9/03
  - End: 2010-2012
  - % complete: N/A
- Budget
  - Total Funding: $1,125K
    - DOE share: 100%
    - Contractor share: N/A
  - FY04 funding: $375K
  - FY05 funding: $400K
  - FY06 funding: $350K

Note: this funding also covers additional international efforts (IEA, IPHE, Beijing Olympics, etc)

- Barriers
  - Limited DOE Role in the Development of International Standards
  - Inadequate Representation at International Forums.
  - International Competitiveness
  - Conflicts between Domestic and International Standards.
  - Lack of Sustained Domestic Industry Support at International Technical Committees
- Partners, Collaborators
  - Bob Mauro
  - Nha Nguyen, DOT

Objective - GTR

- By 2010, support and facilitate development of Global Technical Regulations (GTR) for hydrogen vehicle systems under the United Nations Economic Commission for Europe, World Forum for Harmonization of Vehicle Regulations, and Working Party on Pollution and Energy Program (ECE-WP29/GRPE)
  - Work with DOT/NHTSA and EPA to coordinate US position on the development of international hydrogen/fuel cell codes, standards, and regulations that are performance-based

GTR Refresher

Issue	UN/ECE 1998 Agreement (GTRs)
Contracting Parties	US Japan European Community Canada, European countries Russia, China, Korea…
Principal Elements	Does not contain provision for mutual recognition of approvals Allows authorities to adopt and maintain technical regulations that are more stringent Two pathways: harmonization of existing (recognized) standards or regulations; or establishment of new GTR where there are no existing standards or regulations
Voting	Quorum = at least half of all Contracting Parties Have to be present to vote Existing regulation is added to the Compendium of Candidate Global Regulations if supported by 1/3 of the present and voting Parties, including the vote of Japan, EC, or US New GTR: consensus vote (unanimous) of Contracting Parties present and voting – if voting against, must provide an explanation within 60 days. If the Contracting Party fails to provide the explanation, vote is changed to affirmative
New/revision enters into force	A Contracting Party can decide not to adopt the established GTR into its own laws or regulations. Has to notify The Secretary-General in writing and has to give a reason (within 60 days of making decision) A Contracting Party that has not adopted the GTR or made a decision not to adopt within one year has to report to the S-G (yearly)

Progress – GTR:

Proposal Regarding the Implementation of a Roadmap for a GTR on Hydrogen Fuel Cell Vehicles

- A comprehensive GTR development process will address environmental and safety concerns, including crashworthiness considerations
- The Working Group on Hydrogen brings together expertise in the environmental and safety areas
- In order for the safety and environmental provisions to be adequately addressed, the GRSP (Working Party on Passive Safety) and GRPE (Working Party on Pollution and Energy) will need to be fully engaged.

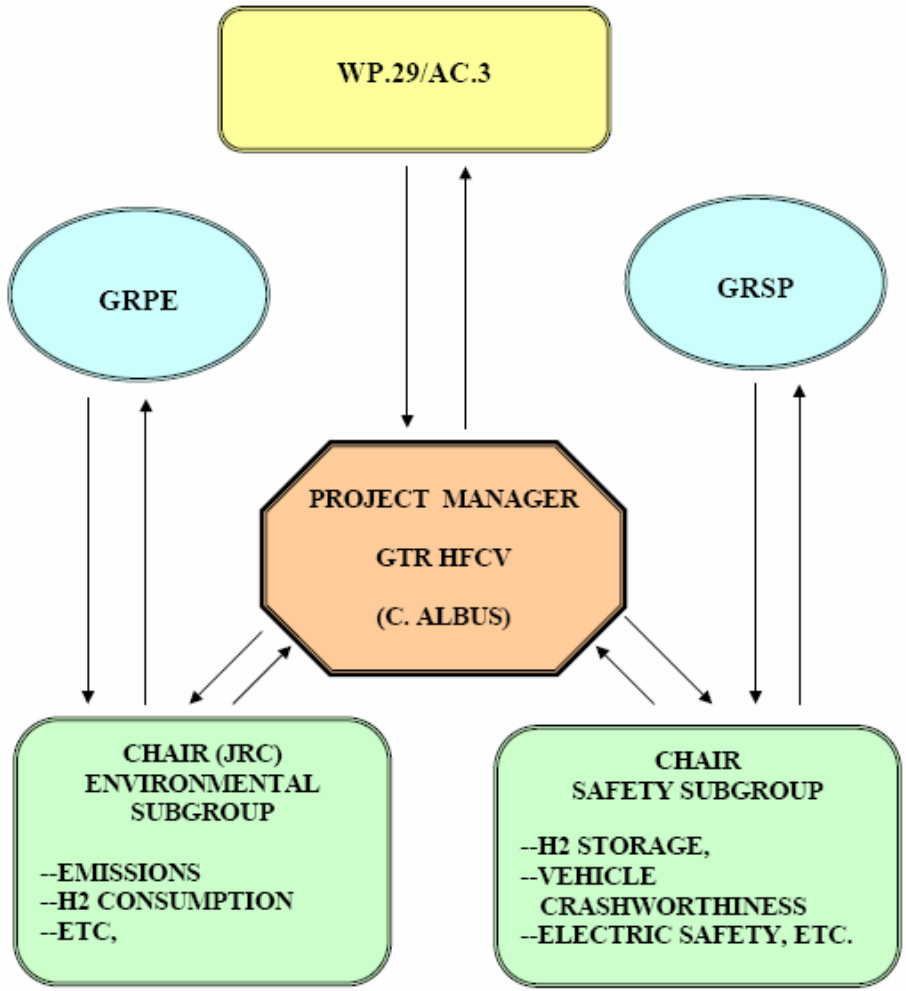
Progress – GTR:

Proposal Regarding the Implementation of a Roadmap for a GTR on Hydrogen Fuel Cell Vehicles

- Germany will continue to lead the GTR Working Group on Hydrogen (HFCV)
  - Mr. Albus will act as the project manager, coordinating and managing all aspects of the roadmap, including the structure of the GTR, setting of milestones and timelines
- Two SubGroups will be formed under the HFCV:
  - Safety HFCV SubGroup will be comprised of safety and crashworthiness experts. Input from researchers is vital in order to provide the supporting science for the GTR
  - Environment HFCV SubGroup will be comprised of environmental experts
- The 2 co-chairs and the project manager will work with GRSP and GRPE on the development of the GTR, ensuring that milestones are met within the agreed timelines

Progress – GTR:

Proposal Regarding the Implementation of a Roadmap for a GTR on Hydrogen Fuel Cell Vehicles



Progress – GTR: Status

- Nha Nguyen (DOT/NHSTA) replaced Martin Koubek as the US representative to the HFCV Working Group
- SubGroup on Environment and Emissions (SGE) formed
  - EC/JRC is lead
  - Two meetings held
- "Unofficial" meeting of the SubGroup on Safety (SGS) held
  - October 2005 (Tokyo)
  - no chair currently selected

Progress – GTR:
Japanese Regulation as Starting Point?

- The Japanese issued a comprehensive regulation for hydrogen vehicles and refueling infrastructure
  - Japan uses a type-approval process
  - The development of the regulation was largely closed to outside comment
  - Regulation has been made publicly available in English and was discussed at a meeting in Tokyo (October 2005)
- USDOT supports the “systems” approach used by Japan
  - This comprehensive set of regulations may be used as the starting point for a whole-vehicle GTR (principally under SGS)
  - Careful study of the regulation, and supporting data, will be essential (some sections contain design-specific language that will need to be examined and modified)

Future Work

- Continue monitoring progress and participate in UN/ECE process
- Continue to provide technical support and assistance to DOT related to regulations, codes and standards (RC&S)
- Participate in IPHE RC&S working group

Supplemental Slide
Response to comments from last year's review

- Comment
  - Providing the U.S. auto/fuel cell/energy industries with visibility into the morass of the EU regulatory process is a good thing. However, other than an information sharing exercise, this project provides little value to the charter of the Codes and Standards Tech Team, which is to identify and initiate research into the science that will enable a good basis for emerging hydrogen codes and standards.
- Response
  - The purpose of this activity is not to provide visibility for industry, but to assess the activities of other governments that could affect the leadership position of US technology. Without consistent attendance at these meetings, accurate and timely information concerning the activities of other governments would not be properly assessed.