

# **NHTSA Updates**

## **5<sup>th</sup> GTR -13**

### **Phase 2 Meeting**

March 5, 2019

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NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION





# Completed Research Items

- **Hydrogen container performance testing - Powertech**
  - Two Type IV containers and one Type III container
  - Detailed test procedures for all the container tests in GTR No. 13 (including fire test)
  - Conducted GTR No. 13 specified tests:
    - Verification tests for baseline metrics (burst, cycling)
    - Verification tests for performance durability
    - Verification tests for expected on road performance
- **Results**
  - One Type IV container failed baseline cycling and performance durability test during ambient cycling.
  - One Type III container failed the performance durability test during the high temperature pressure cycling.
  - Both containers tested for expected on road performance passed.



## Completed Research Items – (Cont.)

- **Testing of compressed natural gas containers and accessories - CSA Group**
  - Two Type IV one Type III, and one Type II container
  - Conducted GTR No. 13 specified tests:
    - Verification tests for baseline metrics (burst, cycling)
    - Verification tests for performance durability
    - Verification tests for expected on road performance
    - Fire tests
- **Results**
  - One Type II and a Type IV container failed the fire test.
  - One Type IV container failed the durability test during cold temperature pressure cycling.



# Ongoing Research -

- Strategic partnership project (SPP) with the National Renewable Energy Laboratory (NREL)
- Objective: Recommend fuel system and fuel container integrity requirements for the safe operation of light and heavy alternative fuel vehicles (CNG, LNG, propane) .
- Approach:
  - Review current codes, standards and best practices,
  - Examine previous research findings and conduct a literature review, and
  - Conduct expert panel meetings
- Deliverable: Draft report in June 2020, Final report in September 2020.



# Proposing GTR No. 13 for Incorporation into FMVSSs

- NHTSA will wait for the on-going Phase 2 efforts to be completed to initiate the rulemaking process for proposing incorporating GTR No. 13 into FMVSSs.