

HICEV America TEST SEQUENCE

Revision 0

November 1, 2004

Prepared by

Electric Transportation Applications

Prepared by: _____ Date: _____
Garrett Beauregard

Approved by: _____ Date: _____
Donald B. Kerner

HICEV PERFORMANCE TEST PROCEDURE SEQUENCE

The following test sequence shall be used for conduct of HICEV America Baseline Performance Testing. This sequence of testing confirms vehicle conformance with all "shall" statements contained in the HICEV America Hydrogen Internal Combustion Engine Vehicle (HICEV) Vehicle Specifications. Additionally, submittal of all information required by the HICEV America Hydrogen Internal Combustion Engine Vehicle (HICEV) Vehicle Specifications is verified and selected "should" statements are verified.

1. ETA-HIAC06 Receipt Inspection

Conduct of this test procedure accomplishes the following test objectives.

- Should data submittal verification
- Should data submittal accuracy verification by inspection
- Should data submittal accuracy verification by vehicle measurement
- Testing for selected should requirements not verified by specific Performance Test Procedures (ETA-HITPXXX)

2. ETA-HTP11 Vehicle Verification (Initial Phase)

Conduct of this test procedure is accomplished in two phases. The initial phase accomplishes the following test objectives.

- Shall data submittal verification
- Shall data submittal accuracy verification by inspection
- Testing for shall requirements not verified by specific Performance Test Procedures (ETA-HITPXXX)

3. ETA-HTP04 Electric Vehicle Constant Speed Fuel Economy Tests

Conduct of this test procedure accomplishes the following test objectives.

- Determination of fuel economy at constant speed 45 mph
- Speedometer accuracy should requirement verification
- Odometer accuracy shall requirement verification
- Fuel gauge accuracy shall requirement verification

4. ETA-HITP05 Rough Road Course Test

Conduct of this test procedure accomplishes the following test objectives.

- Rough road completion shall requirement verification
- Rough road impairment should requirement

5. ETA-HITP02 Acceleration, Gradeability and Deceleration

Conduct of this test procedure accomplishes the following test objectives.

- Acceleration should requirement verification
- Gradeability should requirement verification

NOTE; This procedure is conducted at the DCX Arizona Proving Ground

HICEV PERFORMANCE TEST PROCEDURE SEQUENCE**6. ETA-HITP01 SAE J1263 Coastdown**

Conduct of this test procedure accomplishes the following objectives.

- Develop road load coefficients for use in SAE J1634 dynamometer testing

NOTE; This procedure is conducted at the DCX Arizona Proving Ground

7. ETA-HITP03 SAE J1634 Dynamometer Testing

Conduct of this test procedure accomplishes the following objectives.

- Determine hydrogen internal combustion engine vehicle fuel efficiency without air conditioning loads
- Determine hydrogen internal combustion engine vehicle fuel efficiency with air conditioning loads

8. ETA-HITP007 Road Course Handling Testing

Conduct of this test procedure accomplishes the following test objectives.

- Vehicle handling course time data collection

9. ETA-HITP06 Brake Testing

Conduct of this test procedure accomplishes the following test objectives.

- Braking distance data collection

10. ETA-HITP011 Vehicle Verification (Final Phase)

Conduct of this test procedure accomplishes the following test objectives.

- Repair time shall requirement verification (using Non-Conformance Reports)

11. ETA-HIAC03 Preparation and Issuance of Test Reports

Conduct of this procedure accomplishes the following test objectives.

- Preparation and issuance of the final test report