

ETA-HIAC05

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Training and Certification Requirements for Personnel Utilizing ETA Procedures

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1.0 Objective

The objective of this procedure is to assure that personnel conducting HICEV America procedures are qualified and trained to perform in a technically competent and safe manner. This procedure shall not supersede other training requirements that may be imposed by a contract or subcontract facility (e.g., location-specific Hazard Communication training). Rather, this procedure shall supplement those requirements.

2.0 Purpose

The purpose of this procedure is to identify minimum requirements for the certification and training of personnel performing activities directed by HICEV America procedures.

3.0 Documentation

Documentation addressed by this procedure shall be consistent, easy to understand, easy to read, and readily reproducible. This documentation shall contain enough information to "stand alone"; that is, be self-contained to the extent that all individuals qualified to review it could be reasonably expected to reach a common conclusion, without the need to review additional documentation. Storage and retention of records shall be completed as described in Procedure ETA-HIAC01, "Control, Close-out and Storage of Documentation."

4.0 Prerequisites

- 4.1 All documentation required to document the training required by this or other procedures shall be completed, approved and issued prior to the testing it addresses being commenced. At no time shall these procedures be utilized prior to their noted effective date.
- 4.2 Individuals assigned to perform an activity controlled by an HICEV America procedure shall have the background necessary to support the particular activity. This background may be through formal education, training, or "on-the-job" training.
- 4.3 Individuals assigned to perform an activity controlled by an HICEV America procedure shall have received training and/or indoctrination in that activity. This applies to all personnel, including contract and subcontract.
- 4.4 Prior to commencing any activity, a meeting of the personnel involved in the activity shall be held to discuss the following:
 - 4.4.1 Test purpose; and requirements;
 - 4.4.2 Test requirements;
 - 4.4.2 Personnel requirements;
 - 4.4.3 Test methodologies;
 - 4.4.4 Expected contingencies and exceptions, including:
 - 4.4.4.1 Reasons
 - 4.4.4.2 Justifications
 - 4.4.5 Methods required to ensure safety
- 4.5 Individuals involved in activities that include the potential for exposure to hazardous materials or substances shall receive specific training for those hazards.

5.0 Personnel Requirements

- 5.1 Individuals involved in an activity controlled by an HICEV America Procedure shall understand the activity, the methodologies involved, and the normal and accepted practices associated with that activity. These individuals shall also be cognizant of requirements to mitigate off-normal occurrences that may become manifest during the covered activity.
- 5.2 Individuals involved in an activity controlled by an HICEV America Procedure shall participate in a briefing or training in that activity prior to

their participation in the activity. This requirement may be met by group briefings, lectures, training sessions or one-on-one discussions.

- 5.3 Briefings will normally be performed by the Program Manager, Test Manager, or the appropriate Test Engineer. At a minimum, assigned personnel shall be briefed on the following:
 - 5.3.1 The test being conducted;
 - 5.3.2 The specific steps of the procedure;
 - 5.3.3 The parameters which are being measured;
 - 5.3.4 The anticipated results of the test;
 - 5.3.5 Allowable exceptions, if any, and their bases.
 - 5.3.6 Safety requirements
- 5.4 If the potential for exposure to hazardous materials exists, then a briefing shall be held which addresses the specific materials and their associated hazards. This shall include, but not be limited to, hazard communication training.
- 5.5 Individuals conducting briefings/training sessions will normally be the Program Manager, Test Manager or the appropriate Test Engineer. This individual shall be familiar with the procedure in question.
- 5.6 Whenever a briefing or training session is conducted, a briefing form (Appendix A) shall be filled out, and signed by the individual conducting the session, and each individual who was in attendance. This document shall be retained in accordance with procedure ETA-HIAC01.
- 5.7 One briefing form (Appendix A) shall be completed for each subject area addressed, even if multiple topics are covered at the same briefing session. [Example: If one group of individuals receives briefings on two unrelated topics at the same session (e.g., Handling Test and Rough Road Course Test), two briefing sheets shall be completed, one for each topic.]
- 5.8 These briefing forms shall be retained in accordance with ETA-HIAC01.

6.0 Glossary

- 6.1 Certification - The process of validating a person's qualifications to perform a certain activity or group of activities. A person should not be certified to perform a task without being qualified to do so.
- 6.2 On-The-Job Training (OJT) - Training that is accomplished outside of a classroom or structured learning environment. Skills taught "in the field"

to one crafts-person by another more experienced or senior crafts-person are examples of OJT (such as how to run a lathe or drill press).

- 6.3 Effective Date - The date, after which a procedure has been reviewed and approved, that the procedure can be utilized in the field for official testing.
- 6.4 Program Manager - As used in this procedure, the individual within Electric Transportation Applications responsible for oversight of HICEV America. [Subcontract organizations may have similarly titled individuals, but they are not addressed by this procedure.]
- 6.5 Qualification - The process an individual completes in establishing competence in a stated area of expertise. A person may be qualified to perform a task without being certified as such.
- 6.6 Shall - Items which require adherence without deviation. Shall statements identify binding requirements. A go, no-go criterion.
- 6.7 Should - Items which require adherence if at all possible. Should statements identify preferred conditions.
- 6.8 Team Leader - The individual responsible for the approving the review of the test results.
- 6.9 Test Director - The individual within Electric Transportation Applications responsible for all testing activities associated with HICEV America.
- 6.9 Test Engineer - The individual(s) assigned responsibility for the conduct of any given test. [Each contractor/subcontractor should have at least one individual filling this position. If so, they shall be responsible for adhering to the requirements of this procedure.]
- 6.10 Test Manager - The individual within Electric Transportation Applications responsible for the implementation of the test program for any given vehicle(s) being evaluated to the requirements of HICEV America. [Subcontract organizations may have similarly titled individuals, but they are not addressed by this procedure.]
- 6.11 Training - The endeavor an individual undertakes to achieve qualification and certification in a specific area of expertise.
- 6.12 HICEV America – Hydrogen Internal Combustion Engine Vehicle America Performance Test Program, the DOE sponsored test program for independently assessing the performance of vehicles submitted for testing.

7.0 References

- 7.1 ETA-HIAC01 - "Control, Close-out and Storage of Documentation."

- 7.2 ETA-HIAC02 - "Procedure for the Control of Test Conduct."
- 7.3 DOE Order 5700.6C - "Quality Assurance Program Basic Requirements."
- 7.4 HICEV America Vehicle Specification

