

ETA-GAC003

Revision 1
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Preparation and Issuance of Test Reports

Prepared by

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1 Objective

The objective of this procedure is to identify the proper methods for the preparation of reports during and subsequent to testing activities. These methods are not meant to supersede those of the testing facility, nor of any regulatory agency who may have or exercise control over the covered activities.

2 Purpose

This procedure identifies acceptable methods for the development, use, completion, and retention of reports prepared in support of performance testing of electric vehicles provided to Electric Transportation Applications for testing to the technical requirements of GSEV America.

3 Documentation

Documentation addressed by this procedure shall be consistent, easy to understand, easy to read, and readily reproducible. Reports shall contain enough information to "stand alone;" that is, they shall be self-contained to the extent that all individuals expected to review it could be reasonably expected to reach a common conclusion, without the need to review additional documentation. Review and approval of test documentation shall be in accordance with ETA-GAC004, "Review of Test Results." Storage and retention of records during and following testing activities shall be completed as described in Procedure ETA-GAC001, "Control, Close-out, and Storage of Documentation."

4 Initial Conditions And Prerequisites

- 4.1 All relevant testing activities for the subject vehicle have been completed (as described in ETA-GAC002, "Control of Test Conduct") prior to the report being formally issued.
- 4.2 All necessary test documentation has been completed, reviewed and approved per the requirements of ETA-GAC004, prior to the report being issued.
- 4.3 The method for distribution of the subject report(s) shall be agreed upon prior to any report being formally issued.
- 4.4 Personnel who prepare test report(s) shall be familiar with the contents of this procedure as required by procedure ETA-GAC005, "Training and Certification Requirements for Personnel Utilizing ETA Procedures."

5 Activity Requirements

A test report shall be issued for any vehicle submitted to Electric Transportation Applications for testing, regardless of whether the vehicle is actually tested. Test reports should be issued within 30 days of the completion of testing. In no case shall any report be issued more than 90 days after the completion of that vehicle's testing. This section provides additional requirements for the formal test report.

- 5.1 Test reports shall be the preferred mechanism for the objective reporting of data collected during the GSEV America Performance Test Program.
- 5.2 These reports may utilize a variety of media and formats, including text, data file, graphical depiction, film/video tape, and oral presentation.
- 5.3 The material for each vehicle shall be presented in a stand-alone format.
- 5.4 Data/test results shall not be provided in a comparative format. That is, each vehicle's data shall be presented independent of the data of other tested vehicles.
- 5.5 The test report shall include the following:
 - 5.5.1 A Table of Contents
 - 5.5.2 An Executive Summary
 - 5.5.2.1 Vehicle description
 - 5.5.2.2 Test summary
 - 5.5.2.3 Summary data sheet
 - 5.5.3 Test Program Summary
 - 5.5.3.1 Objectives
 - 5.5.3.2 Guidelines
 - 5.5.3.3 Administrative controls
 - 5.5.3.4 Test procedures
 - 5.5.3.5 Test facilities
 - 5.5.3.6 Test instrumentation
 - 5.5.3.7 Quality assurance
 - 5.5.3.8 Test sequence
 - 5.5.3.9 Test exception reports (ETA-GAC002, Appendix A)

5.5.3.10 Non-conformance reports (ETA-GAC002, Appendix B)

5.5.4 Vehicle Description

5.5.4.1 Vehicle inspection sheets

- ETA-GAC006, “Receipt Inspection,” Appendix B
- ETA-GTP001, “Vehicle Verification,” Appendix A

5.5.4.2 Vehicle supplier submittals required by Vehicle Technical Specification, Appendix A

5.5.4.3 Appendices/Submittals

- Vehicle Technical Specification, Appendix A
- Vehicle Technical Specification, Appendix B

5.5.5 Test Results (one section for each test procedure) containing:

5.5.5.1 Test summary

5.5.5.2 All test procedure data sheets

5.5.5.3 Test results review check-sheet

5.5.5.4 Graphical results presentation (e.g., charts, graphs, and plots)

5.5.6 Appendices

5.5.6.1 Appendix 1, Vehicle photographs

5.5.6.2 Appendix 2, Supplier’s correspondence

5.5.6.3 Appendix 3, Test Manager’s log

5.5.6.4 Appendix 4, Charging data sheet (ETA-GTP005 Appendix A)

5.5.7 Exhibits

5.5.7.1 GSEV America Vehicle Technical Specifications applicable to the testing activities.

5.6 The test report shall include any exceptions or deviations from the GSEV America Vehicle Technical Specification taken by the vehicle supplier.

5.7 The test report shall not be provided/made available to the vehicle supplier for comment, prior to its issuance, except as noted in step 5.9.

5.8 Test reports should not contain raw data sheets.

5.9 Test reports shall include a summary data sheet in the format shown in Appendix A. The summary data sheet shall be provided to the vehicle supplier prior to issuance of the test report.

- 5.10 At least one representative of each organization involved in testing activities shall sign the test report(s). This signature indicates their organization's concurrence with the data contained in the test report. At a minimum, the test report for each vehicle shall be signed by the Test Manager.
- 5.11 Following completion, the test report shall be provided to the vehicle supplier, the U.S. Department of Energy (if co-funding the testing) and to the manufacturer of the vehicle (if different than the vehicle supplier and authorized by the vehicle supplier).
- 5.12 All original test documents, including data sheets and files, shall be incorporated into the test report maintained by Electric Transportation Applications in accordance with ETA-GAC001.

6 Glossary

- 6.1 Comment Sheet - A form used to record the comments of test personnel during the conduct of performance tests.
- 6.2 Effective Date - The first date that a procedure may be used to formally direct an activity or collect data. This date shall always be subsequent to the dated approval signature.
- 6.3 ETA - Electric Transportation Applications.
- 6.4 Program Manager - As used in this procedure, the individual within Electric Transportation Applications responsible for oversight of the GSEV America Performance Test Program. [Subcontract organizations may have similarly titled individuals, but they are not addressed by this procedure.]
- 6.5 Shall - Items that require adherence without deviation. Shall statements identify binding requirements. A go, no-go criterion.
- 6.6 Should - Items that require adherence if at all possible. Should statements identify preferred conditions.
- 6.7 Summary Data Sheet - A stylized presentation of test results in the form shown in ETTA-NTP003 Revision 1, Appendix A.
- 6.8 Test Director's Log - A daily diary kept by the Test Director, Program Manager, Test Manager, or Test Engineer to document major activities and decisions that occur during the conduct of a Performance Test Evaluation Program. This log is normally a running commentary, utilizing timed and dated entries to document the days activities. This log is edited to develop the Daily Test Log that is published with the final report for each vehicle.

- 6.9 Test Director - The individual within Electric Transportation Applications responsible for all testing activities associated with the GSEV America Performance Test Program.
- 6.10 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.]
- 6.11 Test Manager - The individual within Electric Transportation Applications responsible for implementation of the test program for any given vehicle(s) being evaluated to the requirements of the GSEV America Performance Test Program. [Subcontract organizations may have similarly titled individuals, but they are not addressed by this procedure.]
- 6.12 Test Report - Final documentation of the results of testing prepared in accordance this procedure.

7 References

- ETA-GAC001, "Control, Close-out and Storage of Documentation"
- ETA-GAC002, "Control of Test Conduct"
- ETA-GAC004, "Review of Test Results"
- ETA-GAC005, "Training and Certification Requirements for Personnel Utilizing ETA Procedures"
- ETA-GAC006, "Receipt Inspection"
- ETA-GTP001, "Vehicle Verification"
- GSEV America Vehicle Technical Specifications