



Test Monitoring Center

@ Carnegie Mellon University
6555 Penn Avenue, Pittsburgh, PA 15206, USA

<http://astmtmc.cmu.edu>
412-365-1000

Sequence VH Information Letter 20-1
Sequence Number 2
December 23, 2020

ASTM consensus has not been obtained on this information letter. An appropriate ASTM ballot will be issued in order to achieve such consensus.

TO: Sequence V Surveillance Panel
SUBJECT: Alternate Fuel Approval Process

During the December 14, 2020 Sequence V Surveillance Panel Conference call, the panel agreed to allow for alternate fuel approval for the fuel used for Sequence VH tests. As a result, footnote 22 has been added to show the current supplier and to refer to new Annex A16, which delineates the testing requirements for a fuel to be considered for approval. The Other ASTM Reference Documents section has been updated to include the ASTM TMC Control Chart Guidelines (LTMS) and new section 2.4, Other Reference Documents, has been added to include API 1525 as a reference.

These revised text and or section(s) have been highlighted in red and are effective with the issuance of this letter.

Ron Romano
FCSD, Service Product Development, SEO
Ford Motor Company

Frank M. Farber
Director
ASTM Test Monitoring Center

Attachment

c: http://www.astmtmc.org/ftp/docs/gas/sequencevh/procedure_and_ils/VH/il20-001-vh.pdf

Distribution: Email

Revises D8256-20

2.3 *Other ASTM Documents:*

ASTM Deposit Rating Manual 20 (Formerly CRC Manual 20)⁷

Data Acquisition and Control Automation II Task Force Report dated June 17th, 1997

The Lubricant Test Monitoring System, Sequence VH Test Control Chart Technique for Developing and Applying Severity Adjustments (SA)⁷

2.4 *Other Standards:*

API 1525 Bulk Oil Testing, Handling, and Storage Guidelines Documentation⁸

⁸ Available from American Petroleum Institute (API), 1220 L. St., NW, Washington, DC 20005-4070, <http://www.api.org>.

Renumber existing footnotes 8 through 20 as 9 through 21

8.2.5 *Fuel Batch Approval Process*—Obtain fuel from an approved fuel supplier listed in X2.1.5²². Each new batch of fuel is approved by the following process:

²²The sole source of supply of the fuel known to the committee at this time is Haltermann-Solutions. If you are aware of alternative suppliers, please provide the information to ASTM International Headquarters. Your comments will receive careful consideration at a meeting of the responsible committee,¹ which you may attend. Annex A16 provides testing and other requirements for being considered as an alternate by the Sequence V Surveillance Panel.

Renumber existing footnote 21 as 23

A16 Alternate Fuel Approval Requirements

A16.1 For an alternate fuel to be approved for Sequence V tests, the fuel supplier shall demonstrate, through chemical analyses and engine testing, that the fuel provides the same performance to the currently approved fuel. The supplier shall provide a Certificate of Analysis documenting that the fuel meets the current Sequence V fuel specification, as well as conducting a prove-out program.

A16.2 *Prove-out Program*—Complete the prove-out program using the Sequence VH test, which is to be performed on any Sequence VH Calibrated test stand, or multiple calibrated test stands. Conduct five tests using reference oils as follows:

One test utilizing reference oil 931 and two tests each utilizing reference oils 940 and 1011. Conduct all tests on a single blend of each reference oil and single batch of fuel.

A16.2 At the completion of prove-out testing, chart the tests and determine the prediction error from the exponentially weighted moving average (E_i) and shewhart values (Y_i) in accordance with the LTMS control chart guidelines (available from TMC website, www.astmtmc.org). For an alternate fuel to be considered, the charted results shall have individual Y_i values on all four charted parameters (AES, AEV50, APV50 and $\ln(10\text{-RAC})$) within ± 1.8 . The E_i results will also fall within the Level 2 E_i limits given in the LTMS document.

A16.3 The Surveillance Panel will approve the fuel supplier as an acceptable, alternate supplier, following confirmation of these results. If the supplier is approved, add the supplier and contact information to X2.1.5.

A16.4 If chosen as a supplier, the alternate supplier's fuel will be required to meet the fuel approval criteria given in section 8.2.4 of this test method.