A Program of ASTM International

Test Monitoring Center

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1P Information Letter No. 14-2
Sequence No. 11
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ASTM consensus has not yet been obtained on this information letter. An appropriate ASTM ballot will be issued in order to achieve such consensus.

TO: Single Cylinder Diesel Mailing List

SUBJECT: Revision to 1P Procedure to Allow Engineering Review of Negative Quality Index Values

As approved during the October 21st 2014 Caterpillar Surveillance Panel conference call, the 1P procedure has been modified to allow for engineering review of negative quality index values of operational parameters.

Section 12.1.1 has been modified and Section 12.1.1.1 has been added. The revised pages are attached.

The attached changes to Test Method D6681 are effective with the issue date of this letter.

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Attachment

c: ftp://ftp.astmtmc.cmu.edu/docs/diesel/CAT/procedure_and_ils/1p/il14-02.pdf

Distribution: Email

(Revises Test Method D6681-14 as amended by 14-01)

12.1.1 If a test was not run as specified by this test method, the test is operationally invalid. Some examples of an invalid test are: use of non-specified hardware, non-specified assembly methods, a test run whose downtime is greater than 125 h and so forth. If a test without data acquisition on any controlled parameter has a gap greater than 4 h, the test is operationally invalid.

12.1.1.1 Conduct an engineering review when a control parameter QI value is below the threshold value of zero. A typical engineering review involves investigation of the test data to determine the cause of the below threshold QI. Other affected parameters may also be included in the engineering review. This can be helpful in determining if a real control problem existed and the possible extent to which it may have impacted the test. For example, a test runs with a low QI for fuel flow. An examination of the fuel flow data may show that the fuel flow data contains several over range values. At this point, an examination of exhaust temperatures may help determine whether the instrumentation problem affected real fuel flow versus affecting only the data acquisition.

(1) For reference oil tests, conduct the engineering review jointly with the TMC. For non-reference oil tests, optional input is available from the TMC for the engineering review.

(2) Determine operational validity based upon the engineering review and summarize the decision in the comment section on the appropriate form. It may be helpful to include any supporting documentation at the end of the test report. The final decision regarding operational validity rests with the laboratory.