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OSCT Information Letter 07-2
Sequence No. 11
December 13, 2007

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: OSCT Mailing List

SUBJECT: Percent Deviation Calculation for Test Oil Temperature Data Logging

        During the November 16, 2007 OSCT Surveillance Panel teleconference meeting, the panel approved a motion requiring the use of a percent deviation calculation for test oil temperature operational validity. A revised Table 1 and Section 8.4.4.2 of Test Method D 5662 are attached. New Sections 8.4.4.3, 8.4.4.4 and Equation 1 are also attached. The old Equation 1 has been renumbered to Equation 2. This change is effective with the next reference oil test on or after January 14, 2008.

Don Bell
Chairman
OSCT Surveillance Panel

John L. Zalar
Administrator
ASTM Test Monitoring Center

Attachment

c: ftp://ftp.astmtmc.cmu.edu/docs/gear/osct/procedure_and_ils/il07-2.pdf

Distribution: Email

TABLE 1

Material	Test Oil Temperature °C	Percent Deviation Limits
Nitrile	100 ± 1	1%
Polyacrylate	150 ± 1	1%
Fluoroelastomer	150 ± 1	1%

8.4.4.2   Record the test oil temperature at a minimum of once every minute.

8.4.4.3.   Calculate the percent deviation for the elastomer material test oil temperature shown in Table 1 using the following equation. Record the results in the test report.

$$\text{percent deviation} = \sum_{i=1}^{n} \left(\frac{Mi}{0.5R} \times \frac{Ti}{D} \right) \times 100 \qquad (1)$$

where:
Mi	$=$	Absolute value of the magnitude of the test parameter out of specification limit at occurrence i,
R	$=$	test parameter specification range,
Ti	$=$	length of time the test parameter was outside of specification range at occurrence i, (Ti is assumed to be no less than the recorded data-acquisition frequency unless supplemental readings are documented.), and
D	$=$	test duration in same units as Ti.

8.4.4.4   Invalidate any test that exceeds the percent deviation limits in Table 1.

Renumber Equation (1) in Section 8.7.3 to Equation (2)