



Test Monitoring Center

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MEMORANDUM: 06-004

DATE: January 31, 2006

TO: D02.B07 GI (D5133) Mailing List

FROM: Tom Schofield

SUBJECT: Gelation Index Test Technical Update:
TMC Instrument Calibration Period Change and New Head Calibration Period

As approved by a recent D02.B0.07 Gelation Index Surveillance Panel ballot, the TMC calibration period for gelation index instruments will change from 90 days to 60 days, and a 480-day TMC calibration period for instrument heads will be implemented. These changes will be effective for all TMC calibration tests with a date completed of March 8, 2006 or later. As previously stated in the ballot, the exact TMC calibration protocol is as follows (there are no changes from the protocol that was presented in the approved ballot):

1. A Scanning Brookfield Gelation Index instrument is considered TMC calibrated by completing an operationally valid test on a TMC blind reference oil using the current D5133 test method, and by meeting the current performance acceptance criteria for the reference oil as approved by the surveillance panel. Instrument TMC calibrated status is valid for up to 60-days from date of test completion. To maintain instrument TMC calibrated status, the instrument must be recalibrated at least once every 60 days.
2. In conjunction the 60-day instrument TMC calibrations, all heads on a TMC calibrated instrument must pass a TMC assigned blind reference oil test at least once every 480 days. Head calibrations can be achieved simultaneously with the periodic instrument calibration tests, without additional testing, by rotating the 60-day instrument calibrations successively on all heads of the instrument.
3. The TMC will issue a Test Confirmation Report (TCR) that indicates the status of the calibration attempt and, for successful calibrations, a 60-day (maximum) instrument calibration expiration date and 480-day (maximum) head calibration expiration date.
4. Instrument calibrations shall be rotated among the heads of an instrument every 60 days (though skipping over heads that are malfunctioning or under repair is acceptable).
5. Any calibration attempt on a TMC assigned blind reference oil impacts the instrument calibration status. The start of any TMC assigned reference oil test starts a new instrument AND head calibration, and voids the current calibration status of the instrument and the calibrated status of the particular head being used for the TMC calibration. The calibration status of the remaining instrument heads is unchanged.

6. A passing calibration test calibrates both the instrument for not more than 60-days, and the particular head for not more than 480-days from the date of test completion. A failing calibration test result means the particular head is out of calibration and cannot be used as a TMC calibrated head until it achieves a passing calibration test result. A failing calibration test result also means that the instrument is out of calibration until a passing test is achieved, either on the same head or another head on the instrument (allowing the lab to take a potentially faulty head out of service and still achieve a passing TMC calibration on the instrument).
7. Multiple head calibrations cannot be run simultaneously (true repeat runs are required for head calibrations).
8. After the first cycle of head calibrations on an instrument, any new or repaired head introduced to a TMC calibrated instrument must pass a TMC blind calibration before being considered a TMC calibrated head. This can be done immediately upon installing the new or repaired head (thus also advancing the TMC instrument calibration), or it can wait until the next TMC calibration is due (but it cannot be put into service as a TMC calibrated head until it is actually passes a TMC blind calibration).
9. A lab may advance TMC calibrations on any schedule that they wish so long as the instrument is calibrated AT LEAST every 60 days and all effective instrument heads are calibrated AT LEAST every 480 days. However, as mentioned above, simultaneous head calibration runs are not allowed for TMC calibrations.

In the interim transition, all acceptable TMC calibrations with a date completed prior to March 8, 2006 will retain their instrument TMC calibrated status for the full 90-day period as shown on the most recent TMC Test Confirmation Report (TCR), even though the calibration expiration date may be past March 8, 2006. However, effective March 8, 2006, the TMC's TCR's for Gelation Index calibration tests will begin to display the instrument ID AND the head serial number (exactly as reported to the TMC) along with a 60-day instrument calibration expiration date and a 480-day head calibration expiration date. So, a testing lab should simply refer to the TMC's issued TCR to determine the calibration expiration date of an instrument. As in the past, it will continue to be the testing labs responsibility to request a TMC reference oil assignment and run a qualifying test before the calibration expiration dates to keep the instrument and heads in TMC calibrated status. It will also be the test labs responsibility to see that the calibrations are rotated among the heads and that the heads retain their calibrated status by making sure each head is TMC calibrated at least once every 480 days. If a head is removed from service for repair during the calibration period, the head must be re-calibrated with the TMC before being put back into service as a TMC calibrated head. Likewise, any new heads introduced to a TMC calibrated instrument will require a TMC calibration to be considered a TMC calibrated head.

Please direct any questions to my attention.

TMS/tms

c: <ftp://ftp.astmtmc.cmu.edu/docs/bench/gi/memos/mem06-004.pdf>

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