Test Monitoring Center
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(412) 365-1000

MEMORANDUM: 01-027

DATE: April 2, 2001

TO: Steve Marty, Chairman, High Temperature Cyclic Durability Test Surveillance Panel

FROM: Richard E. Grundza

SUBJECT: High Temperature Cyclic Durability Reference Test Status from October 1, 2000 through March 31, 2001

Summary

The industry control chart shows Cycles to Unsynchronized Shifts severity and precision in control for the period. End of test cycles trended mild (0.435 Δ/s) this report period. The calibrations per start rate has decreased with respect to the previous period. The decrease in calibration per start rate was due to a pair of tests from one laboratory which were invalid because of computer problems.

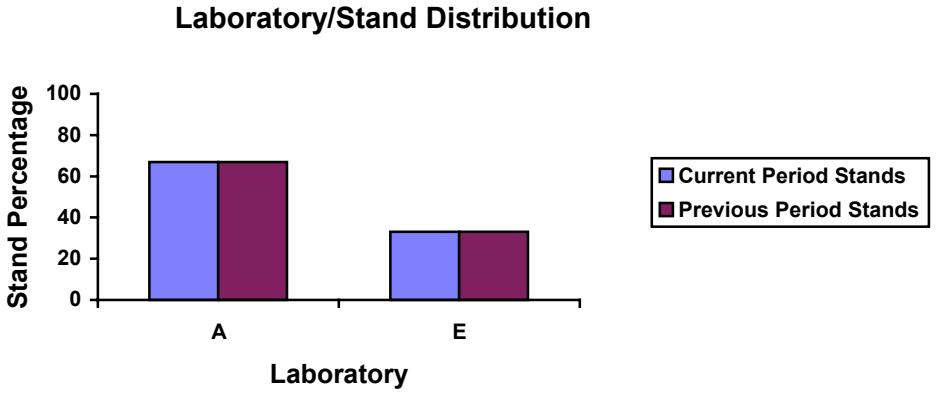
Status

The following is a summary of High Temperature Cyclic Durability reference oil tests that were reported to the Test Monitoring Center during the period October 1, 2000 through March 31, 2001

Lab/Stand Distribution

	Reporting Data	Calibrated as of 3/31/01
Laboratories	2	2
Stands	3	3

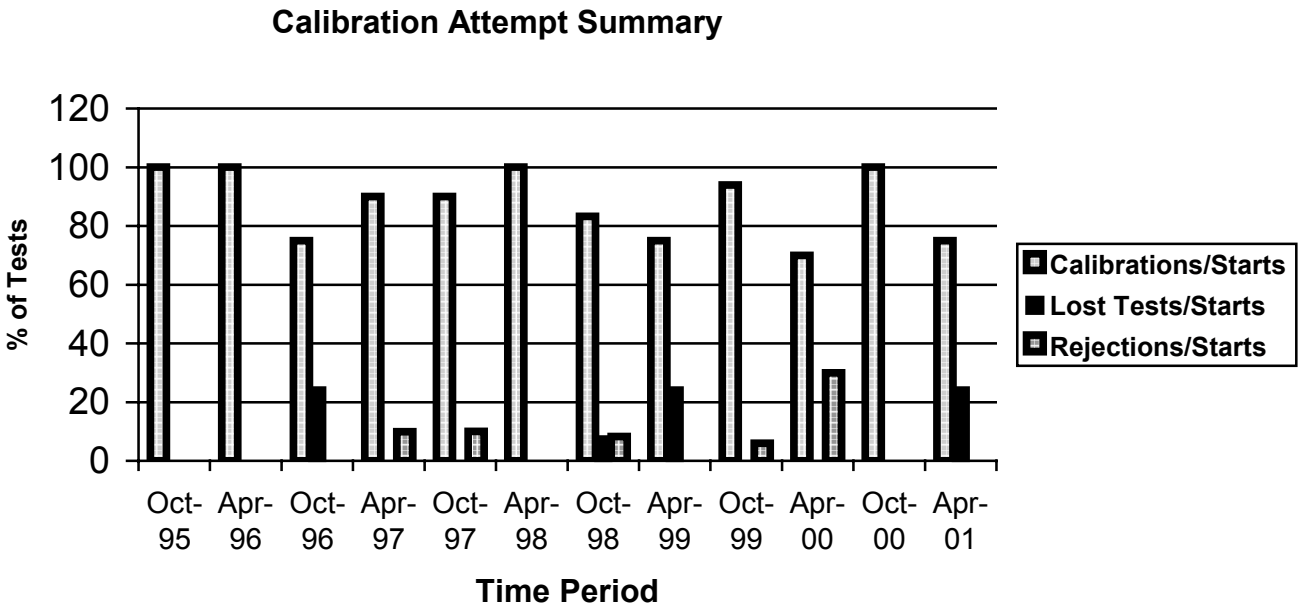
The following chart shows the laboratory/stand distribution:



The following summarizes the status of the reference oil tests reported to the TMC:

	TMC Validity Codes	No. of Tests
Operationally and Statistically Acceptable	AC	6
Operationally Invalid, Laboratory Determination	LC	2
Total		8

Calibrations per start, lost tests per start and rejections per start rates are summarized below:



The calibration per start rate decreased and the lost test per start rate increased with respect to the previous period. There were no rejected tests this report period. The lost test per start rate is somewhat higher than the historical rate and the calibration per start rate is lower than the historical rate. This is primarily due to two tests from one lab which were invalid due to computer problems.

Severity and Precision

Figure 1 is the industry control chart. Severity and precision were in control the entire period. The summation delta/s chart shows a slight trend toward mild results, with an average Δ/s of 0.435 for the period.

Information Letters

There were no information letters issued during this report period.

Reference Oil

A listing of oils used for reference oil testing, along with the quantity available and the estimated number of tests remaining are tabulated below.

Oil	Volume at TMC (Gallons)	Number of Tests Remaining at TMC	Number of Tests Remaining at Labs	Total Number of Tests Remaining
150-2	317	28	2	36
151-3	614	47	2	49

REG/reg

Attachments

c: High Temperature Cyclic Durability Test Surveillance Panel
ftp://www.tmc.astm.cmri.cmu.edu/docs/gears/htct/semiannualreports/htct-04-2001
Frank M. Farber
John L. Zalar

Listing of Tables and Figures Included as Part of This Report to the High Temperature Cyclic Durability Test Surveillance Panel

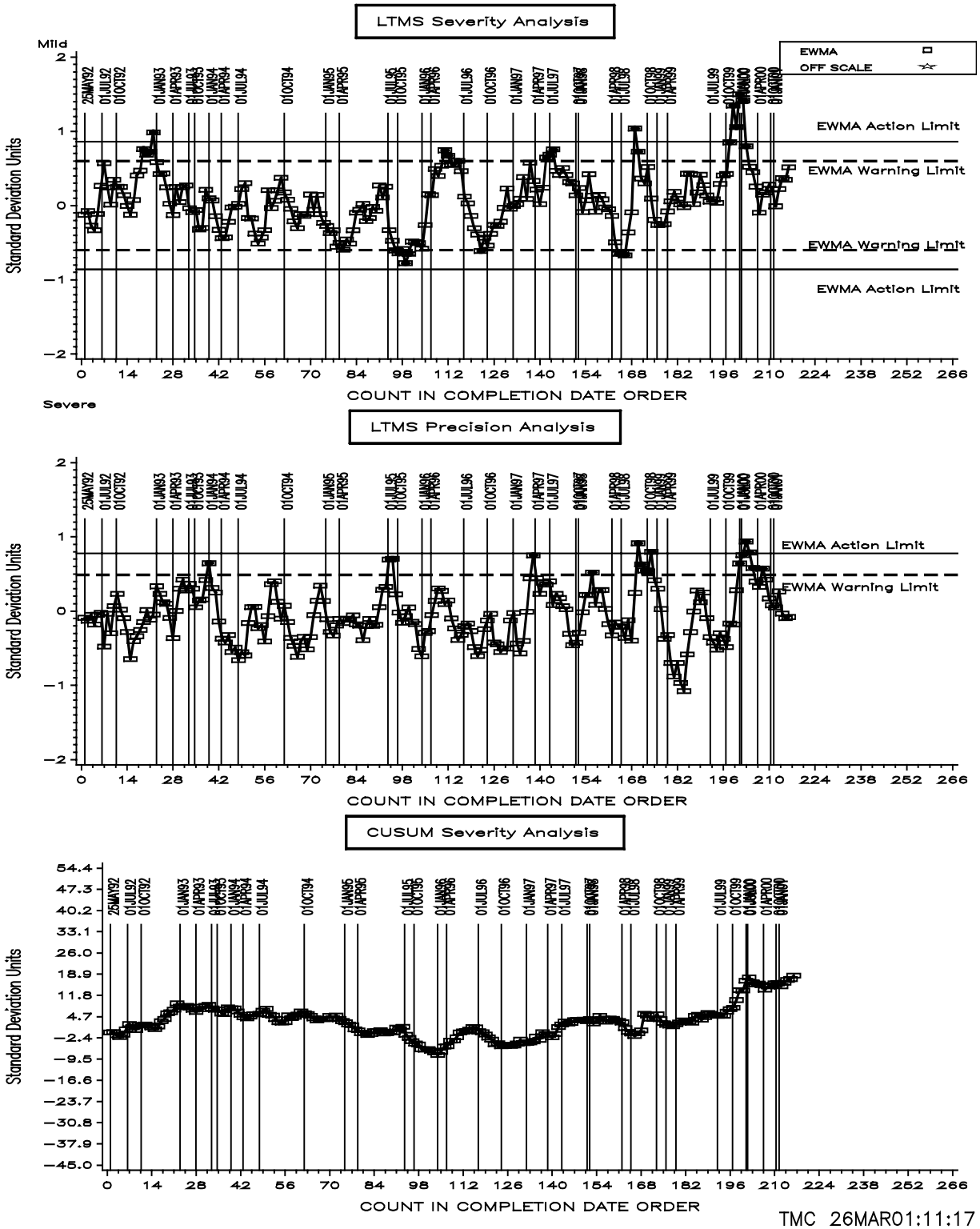
Table 1 is the High Temperature Cyclic Durability Test Industry Timeline.

Figure 1 is the Industry control chart for Cycles to Unsynchronized Shifts.

HTCT INDUSTRY OPERATIONALLY VALID DATA

END OF TEST CYCLES

Figure 1



TMC 26MAR01:11:17

Table 1
High Temperature Cyclic Durability Industry Timeline

Effective Date	Information Letter	Description of Changes
19960701		SURVEILLANCE PANEL APPROVED ACCEPTANCE BANDS AND TARGETS
19970324	97-1	FORMS AND DATA DICTIONARY CHANGES, VERSION 19970128
19961210	97-1	CHANGE TO ALLOW REPLACEMENT OF MAIN BOX SHIFT RAIL COVER WITH ALUMINUM PLATE
19970918	97-2	REPLACEMENT OF APPENDIX X1 WITH ANNEX A5 (EDITORIAL CHANGES)
19971110	97-3	REVISION TO COAST DOWN TIME MEASUREMENT
19980209	98-1	REVISION TO SHIFT TIME DEFINITION AND INCLUSION OF SHIFT TIME PLOT
19980215		FIRST TEST ON NEW SYNCHRONIZER ASSEMBLY (PART NUMBER 320KB459)
19980626	98-2	DEFINED ACCEPTABLE HARDWARE CONFIGURATIONS. REVISED REPORT FORMS AND DATA DICTIONARY TO DOCUMENT HARDWARE CONFIGURATION UTILIZED
19990413	99-1	CLARIFIED THE CALIBRATION PERIOD, ALLOWS NON REFERENCE OIL TESTS TO START UP TO AND INCLUDING THE LAST DAY OF THE CALIBRATION PERIOD.
19990625	99-2	REDEFINED ACCEPTABLE HARDWARE CONFIGURATIONS.
20000613	00-1	REQUIRED THE USE OF WELLMAN SINGLE BATCH FRICTION PLATES FOR TESTS STARTING ON OR AFTER 6/13/00