

- All operationally valid calibration test results must be charted to determine if the test stand is currently “in control” as defined by the control charts from the Lubricant Test Monitoring System.

3. Reference Oil Assignment

Once test stands have been accepted into the system, the TMC will assign reference oils for continuing calibration according to the following reference oil mix:

- 100% of scheduled calibration tests should be conducted on reference oils 145 and 155-2, or subsequent approved rebends, on a 50/50 basis.

4. Control Charts

In Section 1 of the LTMS, the construction of the control charts that constitute the Lubricant Test Monitoring System is outlined. The constants used for the construction of the control charts for the L-60-1, and the response necessary in the case of control chart limit alarms, are depicted below.

LUBRICANT TEST MONITORING SYSTEM CONSTANTS

		EWMA Chart				Shewhart Chart	
		LAMBDA		K		K	
Chart Level	Limit Type	Precision	Severity	Precision	Severity	Precision	Severity
Stand	Warning	0.2	--	2.235	--	--	--
	Action	0.2	0.2	2.81	1.96	2.10	1.80
Lab	Action	0.2	0.2	2.81	3.03	--	1.80
Industry	Warning	0.15	0.15	2.235	2.49	--	--
	Action	0.15	0.15	2.81	3.03	--	--

The following are the steps that must be taken in the case of exceeding control chart limits. The steps are listed in order of priority, although charts should be studied simultaneously to determine the cause(s) of a problem. In the case of multiple alarms, contact the TMC for guidance.

- Exceed EWMA test stand chart action limit for precision (critical parameters only)
 - Remove test stand from the system. Notify the TMC. Correct test stand precision problem. Follow requirements for entry of a new test stand into the system.
- Exceed EWMA test stand chart warning limit for precision (critical parameters only)
 - Immediately begin two calibration tests on the test stand.