

BACKGROUND

Introduction

The current drivers for change in engine oils begin with EPA regulations dealing with exhaust gas emissions. These regulations lead to engine redesigns, which almost always put additional stresses on the oil, therefore calling for new oil categories.

The new PC-9 category will be a distinguishable performance upgrade over API CH-4. The need for the new category is driven by three factors:

- First, more stringent EPA emissions requirements which went into effect in 1998, specifically a 50% reduction of nitrogen oxide emissions.
- Second, engine design modifications such as higher cylinder pressures, increased piston ring zone temperature, and EGR. The use of EGR may allow re-programming of the engine computers to reduce the retardation of injection timing.
- Third, extended service (drain) intervals is a hot button environmentally and with consumers. EMA's target is to extend the recommended drain interval but only through working individually with lubricant manufacturers making separate recommendations to their customers. At this time the PC-9 language will not reference extended service capability.
- This section provides additional background on this new category as well as the many drivers which are initiating change.
- **At the October 16, 2001 HDEOCP meeting, all proposed tests and limits were endorsed with no negatives to go forward to an ASTM subcommittee B ballot to revise D4485 and define a new category to be known as API CI-4. There were no outstanding negative issues at the HDEOCP level, although there were a few comments and concerns about specific ballot points.**
- **A subcommittee B ballot has been drafted and sent to ASTM headquarters to be issued before the end of October to allow closing of the ballot before the December ASTM meetings.**

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