PC-10 NCDT STATUS REPORT

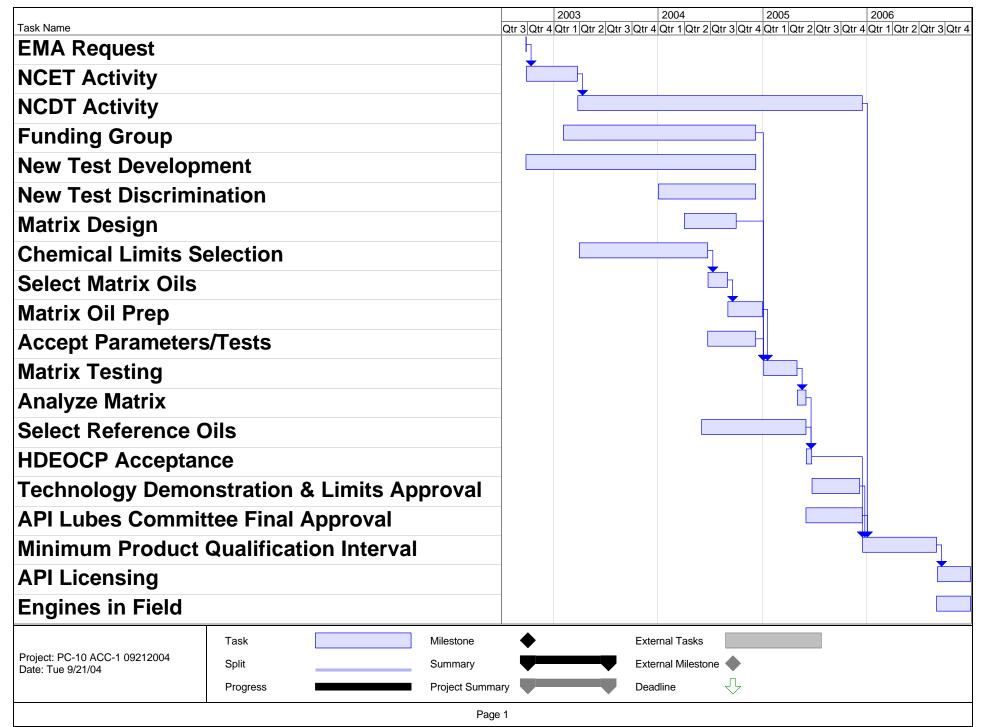
ASTM HDEOCP MEETING DOUBLETREE HOTEL O'HARE CHICAGO, IL November 11, 2004

ASTM HDEOCP Meeting November 11, 2004

Heavy-Duty Engine Oils API Lubes Committee Meeting November 8, 2004

Topics:

- (1) PC-10 Development
- (2) PC-10 Timeline
- (3) PC-10 Matrix Funding

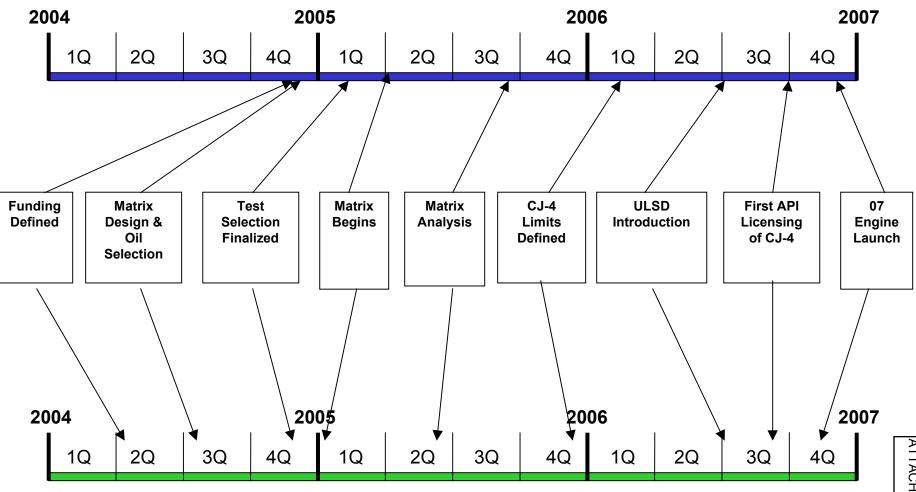


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PC-10 Development

- Cummins ISB will be ready for matrix by 12/04.
- Mack T-12 may not be ready by 12/04.
- T-12 may be ready by 01/05.
- Caterpillar C-13 will probably not be ready by 12/04.
- C-13 will probably not be ready by 01/05.
- Caterpillar 1P/1N/1K issue awaits EMA support, prior to NCDT consideration.
- Matrix oil Status?

Best Guess PC-10 Timeline (10/11/04)



Proposed PC-10 Timeline

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PC-10 Matrix Funding

Overview

- Current PC-10 development requires three Precision matrices and one BOI matrix.

 - Cummins ISB, and Mack T-12 require Precision only.
 - Cummins will specify BOI for ISB, based on M-11 EGR.
 - Mack will specify BOI for T-12, based on T-10.
- API & ACC have agreed to match up to \$ 1MM of EMA funding.
- EMA funding in cash and kind will be counted.

Lubes Committee Guidance Needed

- Position on dealing with timeline slippage.
 - Go forward with only tests that are ready for 1/1/2005 matrix start.
 - Reduce technology demonstration period.
 - Reduce qualification period.
 - Delay first license.
- API-LC: Proceed with matrix, as ready. Delay category completion to allow inclusion of C-13, if needed, unless withdrawn by Caterpillar as a service requirement. Delay of matrix completion will delay first license.

Lubes Committee Guidance Needed

- Procedure for T-12 & ISB BOI.
 - OEM input required.
 - BOI/VGRA Task Force requirements.
- API LC: Accepted in principle. BOI/VGRA TF will work out details with EMA.
- Acceptance of funding commitment.
 - EMA in kind.
 - Separate MOUs.
- API LC: Accepted

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