

HEAVY-DUTY ENGINE OIL NEW CATEGORY EVALUATION TEAM

ASTM HDEOCP
December 6th, 2011

New Orleans, LA



Executive summary

- EMA makes request to DEOAP – June 2011
- DEOAP Establishes NCET
- NCET Evaluated the request
- API LG asked to approve and support establishing NCDT
- API LG supports NCET recommendation to establish NCDT



Why is it required?

- New category is being driven by changes in engine technology to meet emissions, renewable fuel and fuel economy standards for CO₂ and other Green House Gas emissions
- Changes in Hardware
- Engine Test Obsolescence (Hardware Becoming Unavailable)
- 10 Years between Categories



What is being proposed?

- PC-11 should provide improvements in:
 - Oxidation stability
 - Aeration benefits
 - Shear stability
 - Compatibility with biodiesel blends
 - Scuffing/Adhesive Wear

- Supporting data was provided for performance improvements

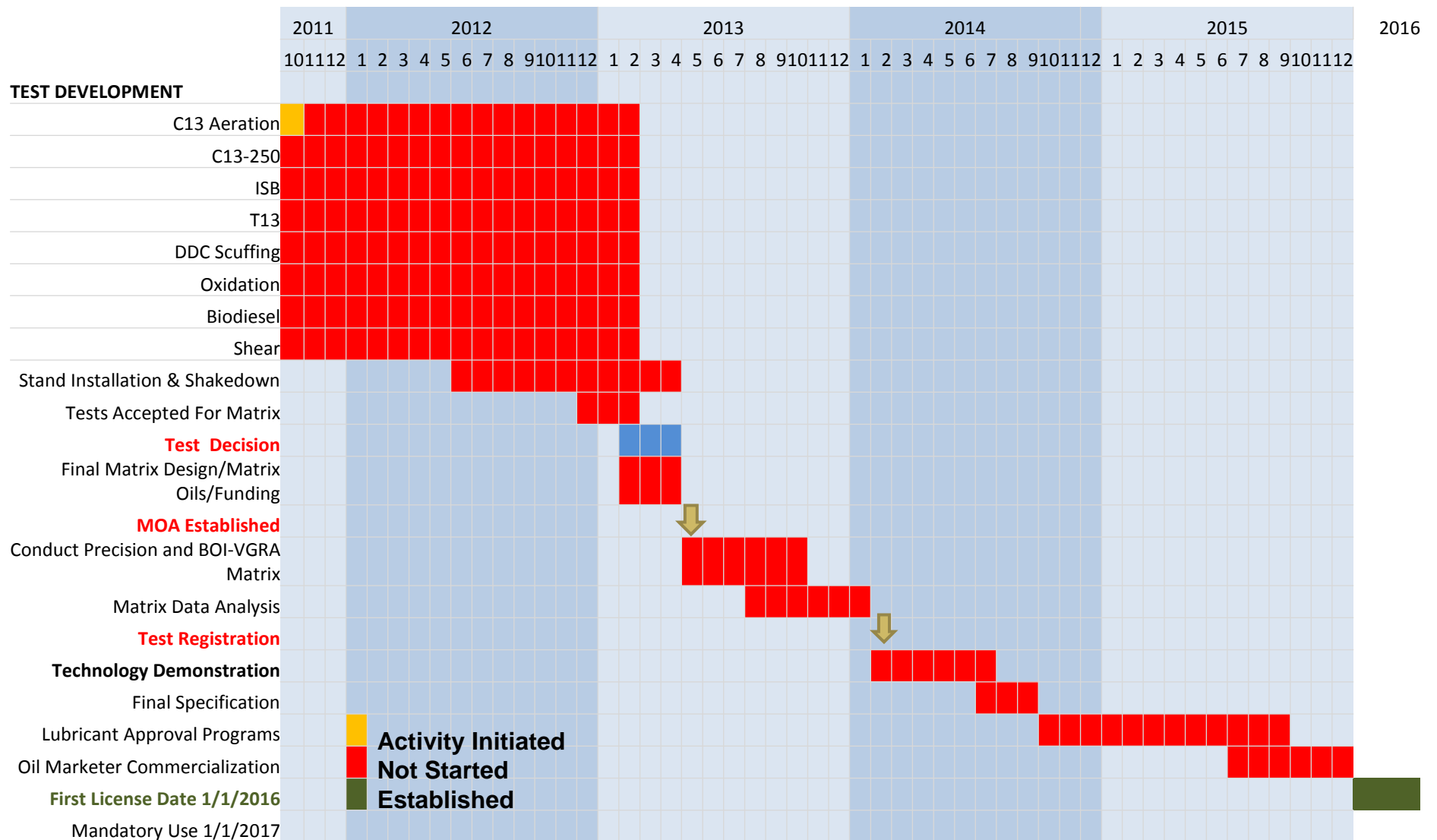
- PC-11 category recommended by EMA to be split into two separate and distinct subcategories associated with fuel efficiency with corresponding performance levels
 - one that preserves historical heavy-duty oil criteria (Higher HTHS)
 - one that provides fuel efficiency benefits while maintaining durability (Lower HTHS)

When is it needed in the marketplace?

- First Licensing Date No Later Than Jan. 1, 2016
- EPA Greenhouse Gas Emission Regulation
- Existing Engine Test Projected Availability



Category development timeline



There will be challenges....

Performance Challenges

- How is Shear stability to be evaluated?
- What Oxidation test will be used?
- Need to better define Biodiesel compatibility
- What should the HTHS be for the lower viscosity/fuel economy specification?

Development Challenges

- Very aggressive time line required to meet first license date target
- Multiple new tests to be developed
- Precision / BOI / VGRA matrix costs likely to be very high
- Potential resource limitations due to overlap with GF-6

Marketing Challenges

- How are we to market this?
- What is the plan for educating the consumer education?
- What will the new category be called?

Phase 2: Category Development

New Category Development Team (NCDT)

API, ACC, EMA, Liaison Members (ILMA, SAE, ASTM) manage development of new category by consensus process



API

- Drafts user language
- Develops licensing Timeline
- Develops BOI and VGRA guidelines

EMA

- Proposes Test
- Provides Hardware
- Identifies reference oil(s)
- Adjusts category targets

ASTM

- Coordinates test procedure and precision development
- Ensures compliance with timetable
- Establishes performance limits

ACC

- Implements template guideline
- Revises Code of Practice

Summary

- NCET Evaluated the request and supports the need for a new category
- First Licensing Date No Later Than Jan. 1, 2016
- LG approved and supports establishing NCDT.



Questions



Set meeting schedule for 2012

- NCDT meeting First Thursday of each month
 - January 5th
 - February 2nd
 - Etc.

- DEOAP meeting Last Thursday of each Quarter
 - March 29th
 - June 28th
 - September 27th
 - December 6th (ASTM week)