



Clean Air Act Advisory Committee Meeting – MSTRS

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Introduction: SmartWay™ Update

- Today I will briefly cover two topics in EPA's SmartWay Transport Partnership Program
 - SmartWay designation for clean and efficient heavy-duty trucks
 - Fuel economy test procedure for heavy-duty trucks



Context

- Since SmartWay's inception in 2003, EPA's SmartWay partners have requested a SmartWay designation for heavy duty vehicles
- Like SmartWay passenger vehicle designation, heavy vehicle designation would be based upon both fuel-efficiency and emissions

History

- In 2004, EPA and 52 Partners rolled-out SmartWay partnership criteria
 - A cornerstone of Partnership is company-wide environmental commitments to reduce CO₂ and NO_x, PM
 - Access to SmartWay designation depends upon demonstrated environmental achievement
- Process to develop vehicle designation criteria occurred on a separate track
 - Broad range of factors to consider



SmartWay Truck Designation Challenges

- No federal fuel economy requirement for HD vehicles
 - No existing test procedure to compare mpg of individual trucks
- HDE emission standards
 - 2007 timing was significant
- Broad range of trucking applications
 - Each with a different operation and vehicle configuration

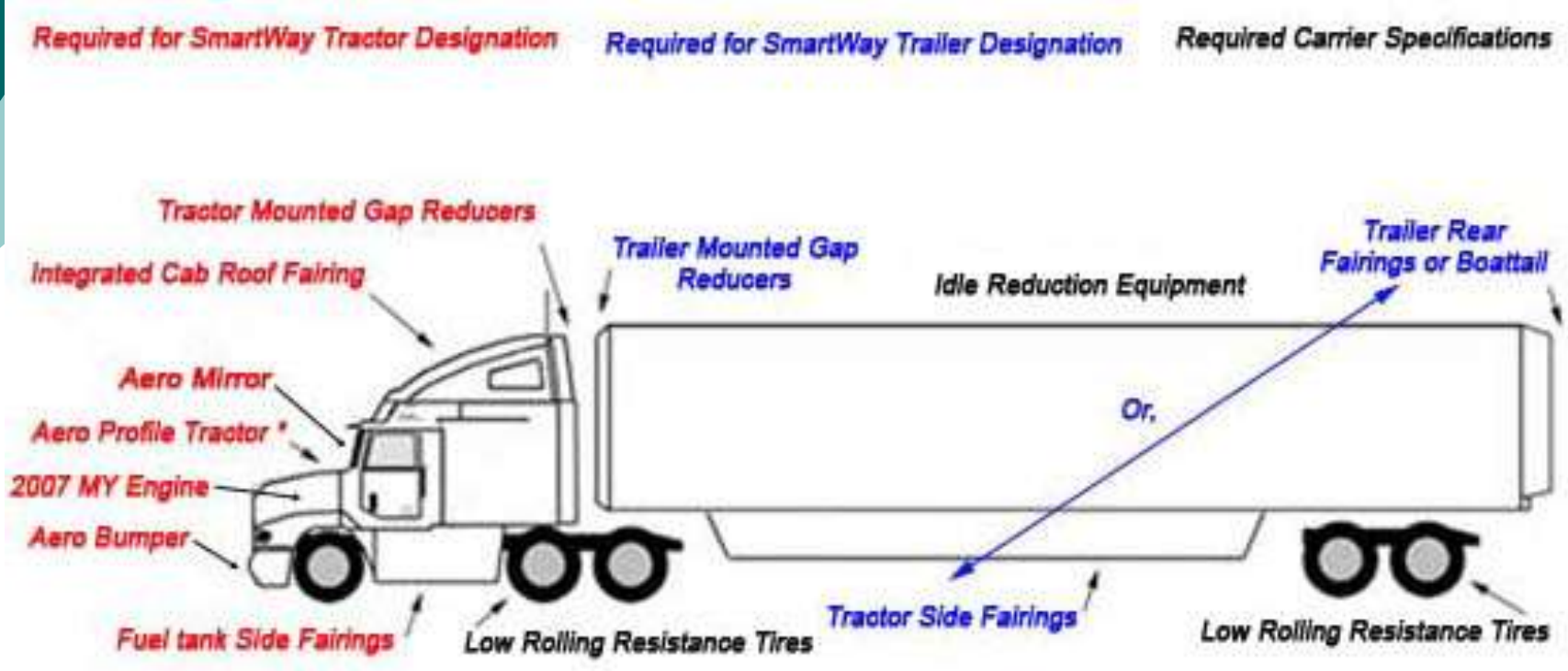
Truck Designation Approach

- Identify focus: Line-haul combination tractor-trailers
 - Use more fuel than all other truck classes, combined
 - Most common truck type among SmartWay partner fleets
- Conduct Testing
 - 2001 – 2002 Fuel consumption and emissions testing on idle reduction equipment for combination tractor-trailers
 - Results published in EPA technical paper and SmartWay web site
 - 2004 – 2006 Fuel consumption and emissions testing on low rolling-resistance tires and aerodynamic equipment for combination tractor-trailers
 - Results published in several SAE papers and SmartWay web site
- Refine equipment criteria
 - EPA invited key stakeholders to solicit additional input
 - Stakeholders included UCS, TMA, EMA, ATA, TTMA

Status

- Completed equipment specification lists with participating manufacturers
 - Truck
 - Trailer
 - Engine
 - Tire
- Developed logo use guidelines
- EPA plans to issue a press release to announce
 - Additional opportunities for public outreach in coming months (media events, PSA, industry PR)
- Industry will promote at point-of-sale, with press releases, at truck shows, and in equipment books

SmartWay Tractor-Trailer Combination



2007 engine and fuel savings of 10% to 20% compared with truck without these features

Future Need - Flexibility for Evolving Technology

- EPA doesn't have sufficient resources to test each new HD technology advancement
 - Need for a test protocol for HD vehicles
 - Complements existing need for a test protocol for HDT hybrid tax credit
- 2006 – EPA invited stakeholders to help Agency develop HDT fuel economy tests
 - Heavy hybrid truck tests for hybrid tax credit
 - Utility, delivery, refuse, transit bus
 - Line-haul tractor-trailer combination test for future SmartWay heavy duty vehicle designation



Test Procedure Development

- EPA convened separate groups for each test development effort
 - Approximately 50 organizations in total with some overlap
- Reviewed existing test procedures as first step
 - Many propriety and customer-specific tests
 - Wide diversity of preferences among stakeholders
- Conclusion: existing tests are insufficient
 - Engine dynamometer tests can't capture hybrid benefits or aerodynamic or tire benefits
 - SAE tests for combination trucks are based upon paired trucks; don't provide stand-alone mpg
 - Proprietary and customer-specific tests too limited in application

Test Procedure Development, con't.

- 2007 – Based upon its findings and feedback from participants, EPA decided to combine two test efforts
 - Most effective way to address overlapping issues
 - End result will provide more flexibility to end users
- Process
 - Develop a single, combined outline
 - Merge sections of two as-yet incomplete drafts where appropriate
 - Develop new sections as needed
 - Identify outstanding technical areas and data gaps
 - Reconvene stakeholders to help fill gaps

Status

- Outline completed in January
- Merged document about 50% complete
- Outstanding areas of technical inquiry identified
 - Test data for drive cycle development
 - Operational data for cycle development and load characterization (industry-wide need)
- EPA reconvening key stakeholders
 - H-TUF
 - DOE and DOT
 - Vehicle and equipment manufacturers
 - Universities
 - Public interest groups
- Goal is to have a draft ready this spring
 - Timing depends upon filling data gaps



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