

NHTSA Perspective for Improving Fuel Efficiency in Medium- and Heavy-Duty Commercial Vehicles and Work Trucks

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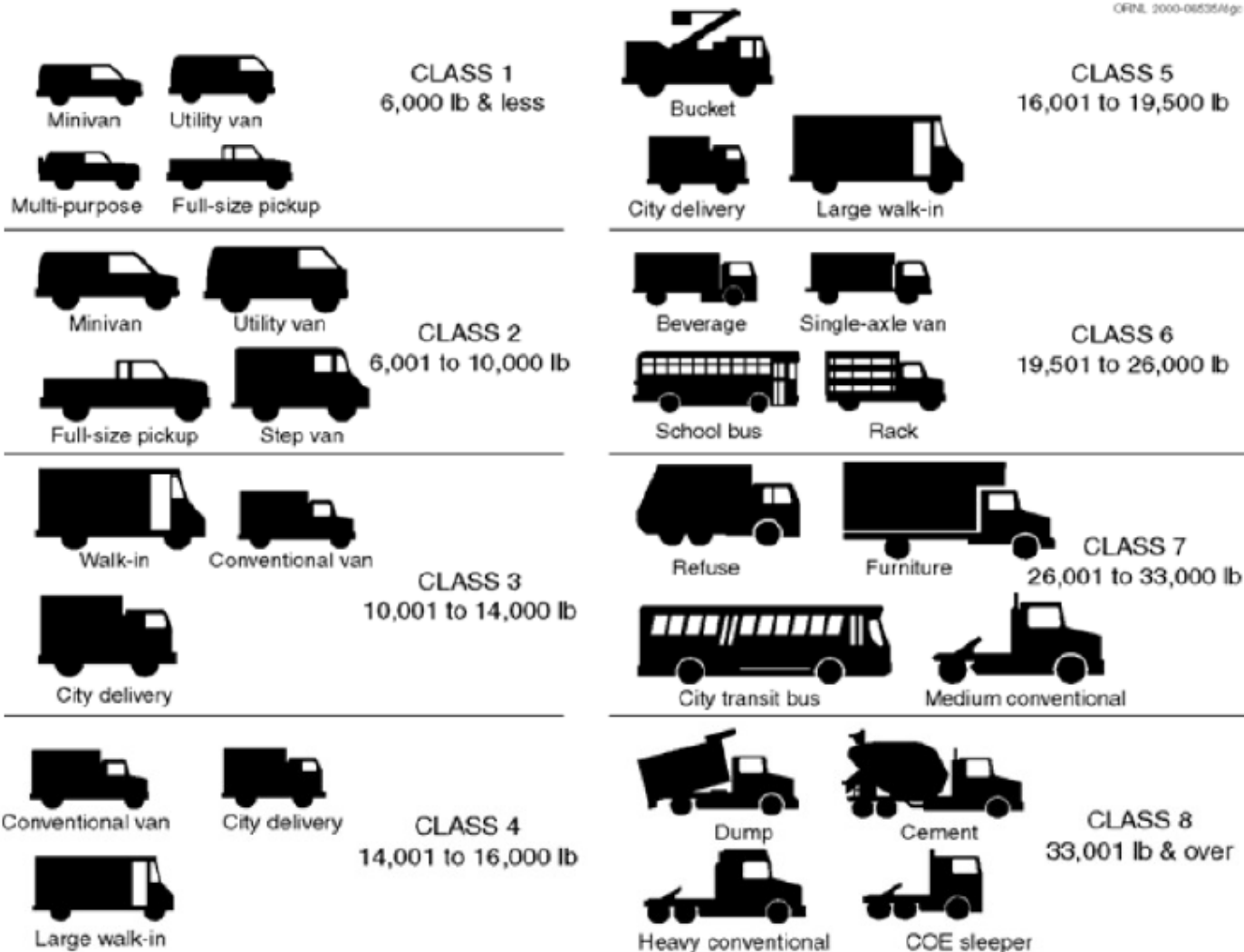


EISA Timeline

- NAS Study- March 2010
- NHTSA Study- Parallel to NAS study; September 2010
- Rulemaking- September 2012
- Rule Implementation- September 2016

Vehicle Classes

ORNL 2000-0825/Agc



Who To Regulate?

Component manufacturers?

- ⌘ Engines (10-12)
- ⌘ Transmissions (5-6)
- ⌘ Other (25-????)

Chassis Manufacturers?

- ⌘ 100-260?
- ⌘ Probably 20-25 Majors.
- ⌘ Volume Exemptions?

Trailer Manufacturers?

- ⌘ How Many?
- ⌘ Long lived with slow inventory turnover.
- ⌘ Tractors can pull many different trailers.

Fleets?

- ⌘ 134,000 trucking and courier establishments (2006)

Body Builders/Final Stage Manufacturers?

- ⌘ ??????????



Metric?

Needs to measure fuel efficiency- fuel consumption per work done.

Light duty MPG metric is likely not appropriate in all cases and may be counter productive.

- ⌘ Different applications have different bogeys.

Metric needs to properly account for time to get work done.

- ⌘ When measured against a fixed-time test cycle can result in difficulties in accounting for average speed.
- ⌘ Variable-time test cycle?
- ⌘ Compensation factors?

Vehicle Classifications?

Can the light duty attribute-based “footprint” be adapted to HD?

- ≡ GVWR
- ≡ Wheelbase
- ≡ Horsepower
- ≡ Etc.

Vehicle specs vs. customer surveys

Can you have a meaningful attribute-based segmentation that is manageable?



Assessment?

Unique MD/HD considerations

- ≡ Size of market is 2 orders of magnitude smaller than LD (155,000 Class 8 vehicles in 2007).
- ≡ Manufacturing base is much more diverse
- ≡ Many more vehicle configurations

Precise assessment vs. “ranking-capable” assessment?

Modeling vs. vehicle or component testing?

Link to existing testing

- ≡ EPA emissions cert
- ≡ EPA SmartWay
- ≡ Standardized protocols (SAE, TMC, ASTM, etc.)



Public Non-NHTSA Suggestions

- Longer/heavier trucks.
- Lower speed limits.
- CVII.
- Driver training.
- Hours of service changes.
- Congestion mitigation.
- Others.

Thank you for your attention!

Questions?



For Further Information

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