

US EPA ARCHIVE DOCUMENT



# *Composite Exhaust Emissions*

- ❖ FTP is the basis for MOBILE5 exhaust emission rates
- ❖ Uses the LA4 driving cycle
- ❖ Includes two engine starts (one hot, one cold)



# *Proposed MOBILE6 Structure*

- ❖ Engine starts split from running emissions
- ❖ Running emissions based on LA4 (without engine starts)
- ❖ Start emissions based on “cold” start (12 hour soak)
- ❖ Hot start emissions calculated from the basic start emission rates based on soak time



## *FTP Weighting*

- ❖ The FTP assumes two weighted LA4 trips
  - One “cold” start trip after a 12 hour soak
  - One “hot” start trip after a 10 minute soak
- ❖ “Cold” trip is weighted 43%
- ❖ “Hot” trip is weighted 57%



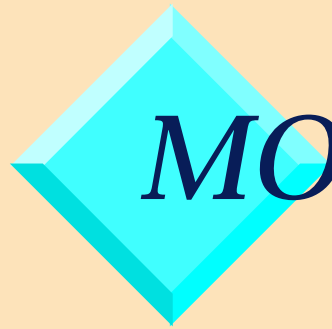
## *Hot Start Emissions*

- ❖ Hot start emissions (after a 10 minute soak) calculated from the basic start emissions
- ❖ Hot start emissions (grams) divided by the LA4 trip length (7.5 miles) to give grams per mile
- ❖ Weighted by 57%
- ❖ Added to the Running LA4 emissions



## *Cold Start Emissions*

- ❖ Same as basic engine start emissions
- ❖ Cold start emissions (grams) divided by the LA4 trip length (7.5 miles) to give grams per mile
- ❖ Weighted by 43%
- ❖ Added to the Running LA4 & Hot start emissions



# *MOBILE6 Weighting*

- ❖ Starts based on a soak time distribution
- ❖ Running LA4 emissions adjusted for facility type and average speed
- ❖ User options for local activity data