

# Texas Transportation Conformity Pre-analysis Consensus Template

(updated April 2010)

## 1. Reason for the transportation conformity regional emissions analysis beginning xx/xx/xxxx

*(Check those boxes that apply and provide a brief explanation in the space provided.)*

<input type="checkbox"/>	New Metropolitan Transportation Plan (demographics, horizon year, etc.)
<input type="checkbox"/>	Modify existing Metropolitan Transportation Plan (interim year adjustments)
<input type="checkbox"/>	New or amended Transportation Improvement Program
<input type="checkbox"/>	State Implementation Plan (SIP) Requirement
<input type="checkbox"/>	Newly designated nonattainment
<input type="checkbox"/>	Other

Explanation:

*(please include important dates in your explanation, such as date of needed conformity approval, potential lapse date, etc.)*

***NOTE (for information only) – For MPOs that are required to prepare a Regional Toll Analysis, if you are initiating a conformity process, you should coordinate within your MPO to determine IF an update to the Regional Toll Analysis may be required because of new or revised projects. No documentation as to the status of your Regional Toll Analysis is required as a part of the Conformity documentation.***

## 2. Planning detail

- Metropolitan Transportation Plan/Transportation Improvement Program  
*(provide name of document and the years covered)*

Plan or Programs	Years covered

- State Implementation Plan

SIP element	Description
Title of applicable SIP(s)	
Motor vehicle emissions budgets <i>(list year and pollutant in tons-per-day of all applicable budgets)</i>	
Transportation Control Measures <i>(list brief title of all applicable SIPs and TCM substitutions, provide the dates of each)</i>	
Other	

- Conformity Analysis Years (*fill in all that apply*)

Requirement	Years
<b>Test Years</b> (40 CFR 93.118 or 40 CFR 93.119)	
Attainment year	
Motor Vehicle Emissions Budget Year(s)	
Intermediate analysis years	
Last year of transportation plan (MTP/RTP)	
Near Term year ( <i>if applicable</i> )	

- Demographics (*provide detail and source of data*)

Data element	Detail and source of data
Population	
Employment	
Socio-economic	
Other	

### 3. Activity detail

- Land-use model used (*describe the model and/or methodology*)

- Travel Demand Model:

Model factor	Detail and methodology
Model validation/base year	
Software	
Mode split/mode choice	
VMT adjustments	
Counties covered by model	
Other	

- Projects (*provide brief description here and attachments as applicable*)

Project element	Describe
Regionally significant definition (40 CFR 93.122)	
Capacity changes	
CMAQ projects	
Non-federal projects	
Exempt projects	
Other	

#### 4. Emissions detail (mobile emission factor model information)

- MOBILE6 external files for VMT aggregation

County link data parameter	Input and methodology
Summer Weekday: inputs to produce county, hourly, summer weekday virtual link VMT and speeds	
Annual	

VMT Distribution Parameter	Input and methodology
VMT by Hour	
VMT by Speed	
VMT by Facility	

- Development of emission factors (*insert description*):
- Emissions factor post-processing (*insert procedures*)
- Emissions controls used for conformity credit

Emission reduction strategy and years covered	Modeling or post-processing approach

- MOBILE 6 inputs; (*fill out tables 1 – 7*)

Table 1: MOBILE6 Pollutants and Emission Rates

Command	Function/Description	Input Parameter Source/Value
POLLUTANTS	Defines the basic set of pollutants to report.	
PARTICULATES	Enables computation of particulate matter (PM) and related emissions factors.	
PARTICULATE EF	Specifies location of files that contain the particulate emissions factors when PARTICULATES command is used.	
PARTICLE SIZE	Allows user to specify the maximum particulate size cutoff used by MOBILE.	
EXPRESS HC AS VOC	One of five possible commands which allow the user to specify the particular HC species (NMHC, NMOG, THC, TOG, VOC) to report in the exhaust emissions output.	
NO REFUELING	Directs MOBILE6 not to calculate refueling emissions factors.	
AIR TOXICS	Enables the computation of air toxic emissions factors (six explicit pollutants) and specifies which to calculate.	
ADDITIONAL HAPS	Allows entry of emissions factors or air toxic ratios for calculation of additional user-defined air toxic pollutant emissions factors.	
MPG ESTIMATES	Allows entry of alternate fuel economy data by vehicle class and model year.	

Table 2: MOBILE6 External Conditions

Command	Function/Description	Input Parameter Source/Value
CALENDAR YEAR	Identifies calendar year for which emissions factors are to be calculated. (Required to run model).	
EVALUATION MONTH	Provides option of calculating January 1 or July 1 emissions factors for calendar year of evaluation.	
MIN/MAX TEMPERATURE	Sets minimum and maximum daily temperatures. (Required to run model if the HOURLY TEMPERATURES command is not used.)	
HOURLY TEMPERATURES	Allows temperatures input for each hour of day (Required to run model if MIN/ MAX TEMPERATURE command is not used.)	
ALTITUDE	Specifies high- or low-altitude for modeling area.	
ABSOLUTE HUMIDITY	Used to specify daily average humidity (directly affects NOx emissions). MOBILE6 also converts absolute humidity to heat index which affects HC and CO emissions for the portion of the fleet that MOBILE6 determines is using air conditioning.	
<u>Environmental Effects on Air Conditioning:</u>	Commands used by MOBILE6 to model the extent of vehicle air-conditioning usage.	
CLOUD COVER	Defines average percent cloud cover for given day.	
PEAK SUN	Specifies Mid-day hours with peak sun intensity.	
SUNRISE/SUNSET	Allows user to specify time of sunrise and sunset.	
RELATIVE HUMIDITY	Specifies use of 24 hourly relative humidity values entered by user. MOBILE6 will perform hour-specific calculations with hourly values rather than use single daily default absolute humidity value.	
BAROMETRIC PRES	Specifies use of user input daily average barometric pressure for use with hourly relative humidity to calculate hourly absolute humidity values.	

Table 3: MOBILE6 Vehicle Fleet Characteristics

Command	Function/Description	Input Parameter Source/Value
REG DIST	Allows the user to supply registration distributions by age for any of the 16 composite (combined gasoline and diesel) vehicle types.	
DIESEL FRACTIONS	Permits user to supply locality-specific diesel fractions for 14 of the 16 composite vehicle categories by age.	
MILE ACCUM RATE	Allows the user to supply the annual mileage accumulation rates by vehicle type and age.	
NGV FRACTION	Lets user specify percent of natural gas vehicles (NGV) in the fleet by type and age certified to operate on either compressed or liquefied natural gas.	
NGV EF	Permits the user to enter alternate NGV emissions factors for each of the 28 vehicle types, for running and start emissions.	



Table 4: MOBILE6 Alternative Emissions Regulations and Control Measures

Command	Function/Description	Input Parameter Source/Value
NO CLEAN AIR ACT	Models vehicle emissions as if the Federal Clean Air Act Amendments of 1990 had not been implemented.	
<u>HDDV NOx Off-Cycle Emissions Effects:</u>		
NO DEFEAT DEVICE	Turns off the effects of the HDD vehicle NOx off-cycle emissions effects (defeat device emissions).	
NO NOX PULL AHEAD	Turns off HDD NOx emissions reduction effects of Pull- Ahead program.	
NO REBUILD	Turns off HDD NOx emissions reduction effects of Rebuild program.	
REBUILD EFFECTS	Allows user change Rebuild program effectiveness rate.	
<u>Tier 2 Emission Standards and Fuel Requirements:</u>	Allow the overriding of the default Tier 2 emissions standards and fuel requirements settings.	
NO TIER2	Disables Tier 2 requirements.	
T2 EXH PHASE-IN	Allows alternate Tier 2 exhaust standard phase-in schedules.	
T2 EVAP PHASE-IN	Allows alternate Tier 2 evaporative standard phase-in schedules.	
T2 CERT	Allows user to specify alternate Tier 2 50,000-mile certification standards.	
94+ LDG IMPLEMENTATION	Allows use of alternate 1994 and later fleet penetration fractions for LDGVs under the Tier 1, NLEV (or California LEV 1), and Tier 2 emissions standard programs.	
NO 2007 HDDV RULE	Disables 2007 HDV emissions standards.	

Table 5: MOBILE6 ATP Descriptive Inputs by Analysis Year

Counties ( <i>list counties</i> ):		
ATP start year (YY):		
Analysis Year	MOBILE6 ATP (ANTI-TAMP PROG*) parameters (use separate line for each ATP)	

Table 6: MOBILE6 I/M Descriptive Inputs for Subject Counties

Counties:  MOBILE6 inputs:  I/M GRACE PERIOD: I/M EXEMPTION AGE: I/M STRINGENCY: I/M COMPLIANCE: I/M WAIVER RATES: I/M EFFECTIVENESS:		
I/M Program	I/M Model Years	I/M Vehicles

Table 7: MOBILE6 Emissions Factor Post-Processing to be Performed by County and Year

Strategy and Post-Processing Result	Analysis Year	Counties	MOBILE6 Limit