

## **ReadMe for Statewide Truck and Bus Regulations Emission Analysis Documentation**

There are three emissions inventory models in the inventory documentation package:

- Emission Inventory Recession Model with Proposed Amendments – this folder contains the actual calculations of the emissions inventory for the proposed regulation and with the average of fast and slow growth scenarios
  - Baseline by fleet 10210.mdb – is the starting point of the inventory calculation. Population and VMT by fleet category, model year and air basin are calculated and forecasted. The impacts of Drayage Truck regulation and Public and Utility Fleets regulation on drayage trucks and utility fleets are also estimated.
  - Base by sub cat 100810.mdb – is where the fleet categories in “Baseline by fleet 100810.mdb” were further divided into sub categories based on fleet size, annual mileage, etc.
  - Modeling assumptions.xls – documents the assumptions for fleet turnover and retrofit under the regulation.
  - XXXAB 102010.mdb – based on the population and VMT in “Base by sub cat 100810.mdb” and the assumptions in “modeling assumptions.xls”, estimates the population and VMT results of fleet turnover and retrofit for each air basin.
  - Combined scenario 102010.mdb – combines the air basin results into one table and calculates the emissions under the proposed rule
- Emission Inventory with No Recession with Current Adopted Regulation – this folder contains the emissions inventory calculations for the adopted regulation without the recession.
  - Baseline by fleet no recession.mdb – is the starting point of the inventory calculation. Population and VMT by fleet category, model year and air basin are calculated and forecasted. The impacts of Drayage Truck regulation and Public and Utility Fleets regulation on drayage trucks and utility fleets are also estimated.
  - Base by sub cat no recession.mdb – is where the fleet categories in “Baseline by fleet no recession.mdb” were further divided into sub categories based on fleet size, annual mileage, etc.
  - XXXAB no recession adopted.mdb – based on the population and VMT in “Base by sub cat no recession.mdb” and the assumptions for the adopted rule, estimates the population and VMT results of fleet turnover and retrofit for each air basin.
  - Combined no recession adopted.mdb– combines the air basin results into one table and calculates emissions estimates with adopted rule and without recession.

- Emission Inventory Recession Model with Current Adopted Regulation – this folder contains the emissions inventory calculations for the adopted regulation with recession.
  - Baseline by fleet with recession.mdb – is the starting point of the inventory calculation. Population and VMT by fleet category, model year and air basin are calculated and forecasted. The impacts of Drayage Truck regulation and Public and Utility Fleets regulation on drayage trucks and utility fleets are also estimated.
  - Base by sub cat with recession.mdb – is where the fleet categories in “Baseline by fleet with recession.mdb” were further divided into sub categories based on fleet size, annual mileage, etc.
  - XXXAB with recession adopted.mdb – based on the population and VMT in “Base by sub cat with recession.mdb” and the assumptions for the adopted rule, estimates the population and VMT results of fleet turnover and retrofit for each air basin.
  - Combined with recession adopted.mdb– combines the air basin results into one table and calculates emissions estimates with adopted rule and without recession.

In addition, there are supporting documents for the inventory

1. Buses – Buses and motorcoach related files
  - \* Buses population accrual.xls – analysis of DMV data and data provided by CBA to estimate the population and accrual rates for all other buses and motorcoaches.
  - \* California Public Utilities Commissions.xls - provides the motorcoach population.
  - \* CBA survey.xls – provide mileage accrual by model year for motorcoaches.
  - \* EF for bus\_PTO.xls – emission factors for buses and PTO.
2. Construction – construction fleets related files
  - \* BOE Construction Taxable Fuel Refunds.xls
  - \* Construction allocation pop growth by AB.xls – spatial allocation for construction fleet VMT based on DOF population forecast.
  - \* Construction Avg age&accrual in VIUS.xls – analysis of age and accrual rate of construction vehicles in VIUS 2002.
  - \* EDA UCC data analysis.xls – new construction equipment sales financed.
  - \* Percentage of Construction Trucks.xls – VIUS based analysis on construction population as percentages of HHDDT and MHDDT populations.

3. Emission Factor – emission factor related files
  - \* NOx adjustment details.xls – calculation to reflect engine manufacturer’s compliance approaches for NOx standard.
  - \* HHDDT EF NOx adj cap 400\_800K.xls – emission factors that reflect both the NO<sub>x</sub> adjustment and odometer capping for HHDDT.
  - \* MHDDT EF NOx adj cap 400\_800K.xls – emission factors that reflect both the NO<sub>x</sub> adjustment and odometer capping for MHDDT.
  - \* EF cap 400\_800K w NOx rev.xls – combines HH and MHDDT EF files for input to the Access models.
4. Field Study – field study related files
  - \* Cambridge 2008 trip length.pdf – for estimating the trip length in San Joaquin Valley Air Basin
  - \* SCAG 1999 trip length.pdf – for estimating the trip length in SCAG
  - \* Readme.xls describing the content in “Processed ARB field LP data combined” and “Processed ARB field OD data\_uncorrected”
  - \* Processed ARB field LP data combined.csv – contains field license plate study
  - \* Processed ARB field OD data\_uncorrected.csv – contains field origin-destination survey
5. Growth & Sales – growth and sales forecasts
  - \* EIA sales VMT forecast.xls – the 2009 EIA forecast of VMT and new truck sales used for sales forecast
  - \* Growth w recession.xls – VMT growth trends that reflect recession recovery assumptions
  - \* Sales w recession.xls – Sales forecast reflecting the VMT growth trend with recession
6. 2005 T6 GVW split.xls – analysis based on 2005 DMV to estimate the percent of MHDDTs that are above 26,000 lbs GVWR
7. Fuel comparion.xls – based on estimated CO<sub>2</sub> emissions, compare the estimated on-road fuel consumptions to the reported diesel taxable fuel from BOE
8. IFTA 2005~2009.xls - IFTA fuel/VMT from corresponding with BOE
9. Truck NOx\_PM contribution to 2010\_2020 STWD.xls – contains the analysis of the truck contribution to 2010 statewide mobile source emissions.
10. Supporting documentation for 2009 Board Hearing – contains the documents supporting the inventory presented at 2009 Board Hearing for staff assessment of the impact of economy on emissions. Folder contains a ReadMe file describing included files
11. Supporting documentation for 2008 Board Hearing - contains the documents supporting the 2008 rule inventory presented at 2008 Board Hearing. Folder contains a ReadMe file describing included files

## List of Air Basin Acronyms

Air Basin Code	Air Basin Name
GBVAB	Great Basin Valley Air Basin
LCAB	Lake County Air Basin
LTAB	Lake Tahoe Air Basin
MCAB	Mountain Counties Air Basin
MDAB	Mojave Desert Air Basin
NCAB	North Coast Air Basin
NCCAB	North Central Coast Air Basin
NEPAB	Northeast Plateau Air Basin
SCAB	South Coast Air Basin
SCCAB	South Central Coast Air Basin
SDAB	San Diego Air Basin
SFBAB	San Francisco Bay Area Air Basin
SJVAB	San Joaquin Valley Air Basin
SSAB	Salton Sea Air Basin
SVAB	Sacramento Valley Air Basin

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