

Off-road Emissions Inventory Write-up

Download Instructions:

- Microsoft Access: The Off-road Emissions Inventory model runs as an Access database file. The model was developed in Microsoft Access 2003 and the following instructions are most appropriate for that version of Access. Access 2007 will also run the program but the user is advised to run the model in Access 2003 to resolve any confusion that arises using Access 2007.
- **Download Warnings:** When the database is first loaded onto the computer, Access will warn the user of possible unsafe code in the program. It is important to allow the program to open without any restrictions. **This means selecting options when Access opens that ALLOW the program to open** (if prompted with a warning such as 'Do you want to allow Access to open with these unsafe expressions' **CLICK 'YES' or 'OPEN'**).

 - Other Problems: Microsoft Access allows a user to define security restrictions that will apply to every file on a user's computer. If security restrictions have been set too restrictively, Access will not allow the Emissions Inventory model to open. The user must open a blank database and set options to a lower restriction (one common example of this is setting macro security to 'high' instead of 'medium' will not allow the model to open). Many of these issues will require the user to seek out Microsoft's advice (online or in 'help').

- ***Note: allow a couple minutes for the model to compact itself when closing Access, this is an important step in managing space. If the model becomes unstable (errors or warnings), close the form then close Access and reopen. If problems persist, the model might be corrupt and a new version can be downloaded from the ARB website.**

What this model is used for (instructions also available within the model):

1. Estimate California Diesel Emissions
 - The first five tabs of the user interface (the form that appears when Access is opened) are to estimate California diesel emissions for any combination of equipment type, sector, horsepower, model year, calendar year, fleet size, and/or air basin subject to the In-Use Off-Road Equipment Rule.
2. View Input Tables
 - The 'Input Tables' tab of the user interface is to view input tables that are used to estimate emissions. Users have the ability to adjust values in these tables but original values can be lost when doing so (a replacement must then be downloaded from ARB).
3. Model Release
 - The 'Model' tab is only used to run a simulation of the model. **THIS PORTION OF THE MODEL IS NOT FOR VIEWING EMISSION ESTIMATES.** The population of vehicles used for the 'Model Release' portion is limited due to the confidentiality of the DOORS data. For this

reason fleets with more than 500 vehicles and airlines were excluded. The 'Model Release' is available to allow users access to the model and the ability to calculate emissions from scratch. However, results are inconsistent with the official inventory results because of the limited population. The 'Estimate California Diesel Emissions' portion (steps 1 through 5) contains complete inventory results.

4. Model Code

- The code for running the simulation of the model is available in the home window (the other window that appears when Access is opened) under the 'Modules' section. Double-clicking Either 'EmCoefficient' or 'OsmEmissions' will open the Visual Basic Editor for Access. For questions about navigating Visual Basic Editor use Microsoft's 'Help' or online advice.

5. Alternate Versions: Two alternate versions of the Off-road Emissions Inventory model are the 'Off-road Emissions Inventory ORIGINAL RULE' and 'Off-road Emissions Inventory NO RECESSION' versions. The '...ORIGINAL RULE' version contains emissions estimates for the In-Use Off-Road Equipment Rule that was adopted in 2007. The '...NO RECESSION' version contains emissions estimates for the same adopted rule except without incorporating the recession's effects; this version also contains the 'Growth Factor' table used to estimate emissions without a recession. Both versions are limited to '1. Estimate California Diesel Emissions' above. 2, 3, and 4 are only available in the 'Off-road Emissions Inventory' version.

User Instructions:

Tabs are available at the top of the form (scroll form upwards to view these tabs): Read Me 1, Read Me 2, Emissions Information, Air Basins and Fleets, Equipment, Engines, Run Emissions, Input Tables, and Model (alternate versions only contain six of these – see '5. Alternate Versions' above). Help buttons are available throughout the program to help define terminology and operate the model. 'Read Me 1' and 'Read Me 2' provide additional instructions for estimating emissions and running the model. The next 5 tabs are steps 1 through 5 for estimating emissions. 'Input Tables' contains all input tables excluding a complete DOORS population (See 'Model Release' above). The 'Model' tab will run a simulation of the model. Reading the entire Write-up document and the two Read-Me tabs and clicking help buttons will help the user understand how to use this model. If there is still any confusion feel free to contact Nicole Dolney at ndolney@arb.ca.gov (leave email and telephone contact information to resolve any issues).