

# Truck Carrier FLEET Tool: Data Entry Guide

Part 3







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Part 3

Transportation and Climate Division Office of Transportation and Air Quality U.S. Environmental Protection Agency



#### Part 3: DATA ENTRY GUIDE

This guide is Part 3 of a three-part series designed to help your company participate fully in the SmartWay Transport Partnership.

In Part 3, you will learn how to enter the company and fleet/division data you collected using Part 2 into the SmartWay Truck Carrier FLEET Tool. This guide covers:

- 1. Downloading and setting up to tool to run properly
- 2. Basic organization of the SmartWay Truck Carrier FLEET Tool
- 3. Entering your data
- 4. Data validation
- 5. Viewing fleet/division performance summary data
- 6. Submitting data to SmartWay
- 7. Troubleshooting the tool



#### WARNING!

Completing this tool requires a considerable amount of information about your company, the divisions that are joining SmartWay, and the fleets within those divisions. There are many sections and screens to complete for each fleet/division that you operate. While you will have the ability to save your tool along the way and return to it at anytime, we STRONGLY ENCOURAGE you to review Part 1 to understand key information about joining the partnership and use Part 2 of this series to learn about the data requirements and gather your data BEFORE attempting to use Part 3 to complete the tool.

# **Downloading and Setting up the Tool**

#### **About Microsoft Excel**

Microsoft Excel is an electronic spreadsheet program used for storing and manipulating data. The SmartWay Truck Carrier FLEET Tool was built using Microsoft Excel Forms.

#### **Downloading the SmartWay Truck Carrier FLEET Tool**

The tool can be downloaded from the SmartWay website at: <a href="http://epa.gov/smartway/partnership/trucks.htm">http://epa.gov/smartway/partnership/trucks.htm</a>

Please save the tool in a folder on your hard drive; this folder will house copies of your data and future updates.

#### **Security Settings for the SmartWay Tools**

The following instructions should appear on your screen *if* you need to change your security settings before running the tool.

Security Settings for Excel 2003 Users

Before you begin, be sure to set your Excel security setting level to "Medium."

When using Excel 2003, on the menu bar, select Tools → Macro → Security.

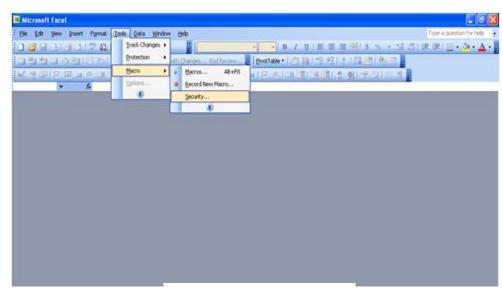


Figure 1: Macro Drop-Down Menu

2. When that window opens, select Medium.

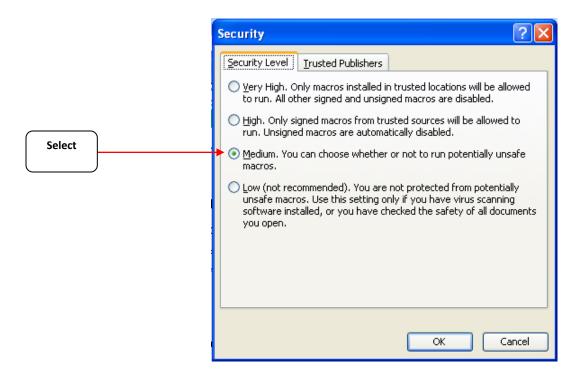


Figure 2: Security Dialog Box

#### To run the tool:

- 1) Save the tool to your computer in a folder on your hard drive; and,
- 2) Double-click on the file to open the tool.

You will see a security warning box appear (Figure 3).



Figure 3: Security Warning Box

3) Select the **Enable Macros** button in the security warning box. The following screen (**Figure 4**) should appear:

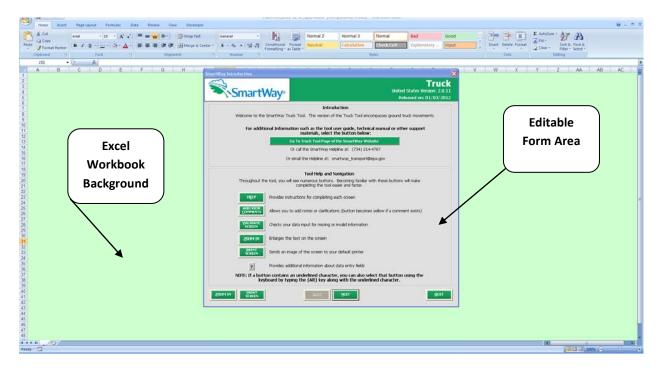


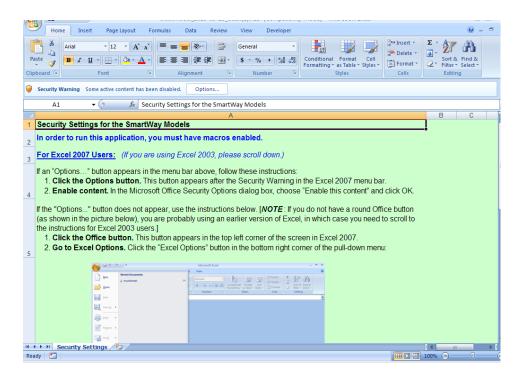
Figure 4: Truck Carrier FLEET Tool Welcome Screen

The part of the tool that you fill out resides in the gray, blue, and dark green forms that appear on the screen. The Excel workbook that remains in the background – and which normally appears as a light green screen as in **Figure 4** – is where all of the data you enter is actually stored. *However, for the purpose of your data entry, please do not enter data in the background workbook.* 

#### Security Settings for Excel 2007 Users

The default settings for Excel 2007 should enable you to run the tool without any changes. To run the tool:

- 1) Save the tool to your computer; and,
- 2) Open the file, and select the "Options..." button that appears after the Security Warning just below the menu bar (**Figure 5**). Detailed instructions are also provided on the screen itself.



**Figure 5 Security Warning Screen** 

3) In the Microsoft Office Security Options dialog box (**Figure 6**), choose "Enable Macros" and select **OK**.



**Figure 6 Security Options Dialogue Box** 

If you reach this point and the tool does not open, please review the "Software and Hardware Requirements" on Page 7 of Part 1 of the guidance series. Otherwise, you may have your security set too high. To adjust your security settings, select the Office button (in the top left corner of the screen) and then select the "Excel Options" button in the bottom right corner of the pull-down menu (Figure 7):

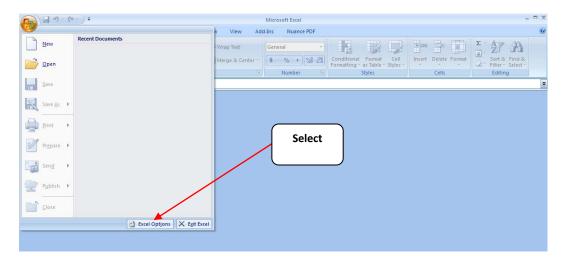


Figure 7 Excel Options Drop-Down Menu

On the Excel Options screen, select Trust Center in the left navigation bar (Figure 8):

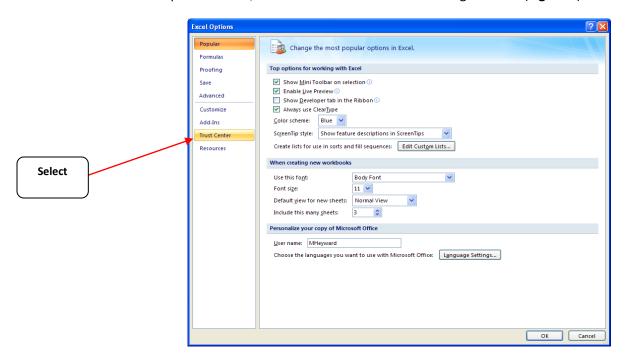
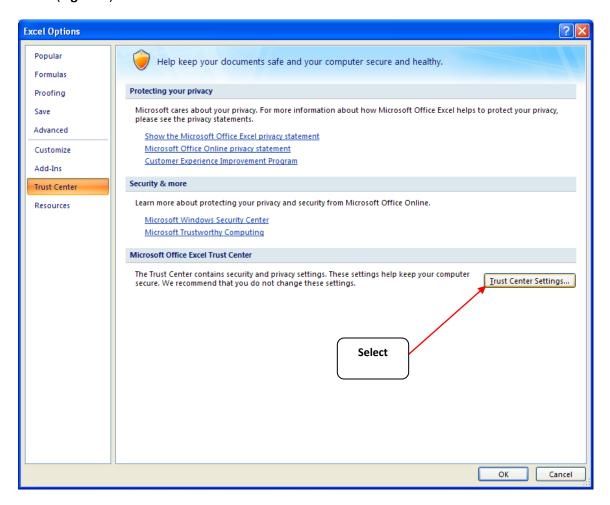


Figure 8 Excel Options Drop-Down Menu

When the Trust Center options display opens, select **Trust Center Settings** in the bottom right portion of the screen (**Figure 9**):



**Figure 9 Trust Center Settings Screen** 

Choose the setting "Disable all macros with notification" (Figure 10) and select OK.

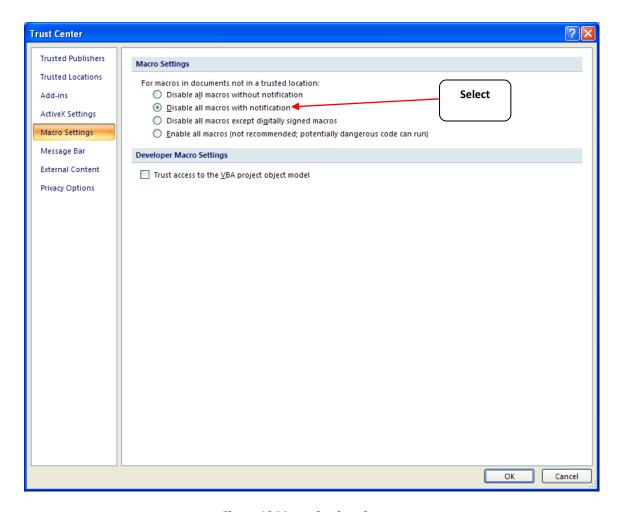


Figure 10 Macro Settings Screen

Now return to the directions on page 3 of this guide.

# **Basic Organization of the SmartWay Truck Carrier FLEET Tool**

# Understanding the Tool Format and Structure

The SmartWay Truck Carrier FLEET Tool is organized around (1) information screens, (2) forms or worksheets, and (3) reports/summaries that guide you through the process of joining the SmartWay Transport Partnership and/or providing your annual update to maintain your good standing with the program.

Each screen or form opens up within a Microsoft Excel spreadsheet. The screens generally look like the one shown here:



Figure 11 Opening Screen of Truck Carrier FLEET Tool

The name of each form appears at the top lefthand corner of the screen, in white text on the blue window bar.

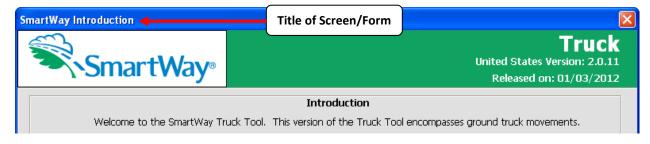


Figure 12 Screenshot of Title of Screen/Form

Each screen contains text instructions or information about the program. Where applicable, the screen will also include buttons to link to the SmartWay website or other sections of the tool (e.g., the various data entry screens); these buttons are shown in green with white text.



Figure 13 Screenshot of Button Link in the Tool

The screens also contain navigation buttons to direct you through the tool.



Figure 14 Screenshot of Selected Navigation Buttons in the Tool

When new concept/topic is introduced on a screen, a small question mark ([?]) appears next to it. When you select the question mark, you will find additional definitions of terms or instructions to help you complete the screen properly.

#### **Reviewing the Introductory Screens**

Before you reach your data entry section of the tool, you will move through four introductory pages that allow you to review the basics of participation in SmartWay for truck carriers:

- The "SmartWay Introduction" Screen
- The "SmartWay Partnership Annual Agreement" Screen
- The "SmartWay Tool Selection" Screen
- The "Required Information" Screen

The features of these four screens are described below.

#### The "SmartWay Introduction" Screen

The **SmartWay Introduction** screen is the first window that appears when the tool is opened (Figure 15). This screen contains a button linking to the SmartWay website where you can view and download additional information about the program, the tool, and the technical basis for the calculations in the tool.

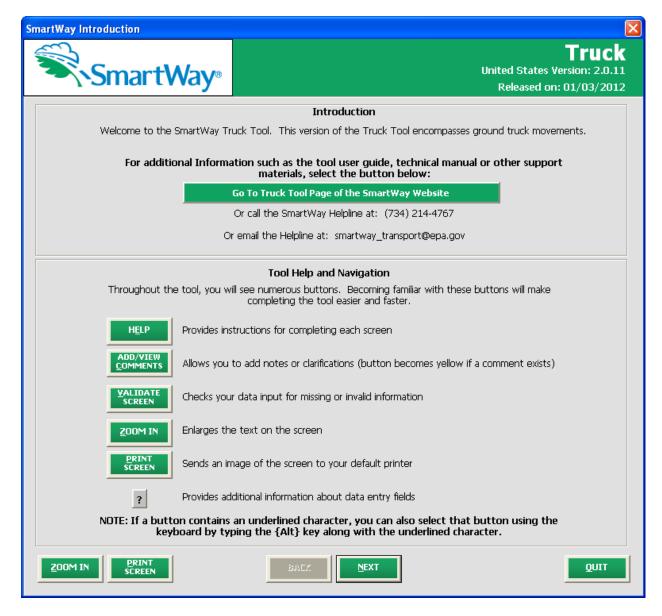


Figure 15: SmartWay Introduction Screen

For your convenience, links to key Truck Tool resources are included here:

- General SmartWay information:
  - o <a href="http://epa.gov/smartway/index.htm">http://epa.gov/smartway/index.htm</a>
- SmartWay Truck Tool information:
  - o http://www.epa.gov/smartway/partnership/trucks.htm
- SmartWay Ranking Guidance:
  - http://www.epa.gov/smartway/documents/partnership/shipper/partnership/carr ier-ranking-system.pdf
- Technical documentation:
  - http://www.epa.gov/smartway/documents/partnership/trucks/partnership/techdoc.pdf

#### The "SmartWay Partnership Annual Agreement" Screen

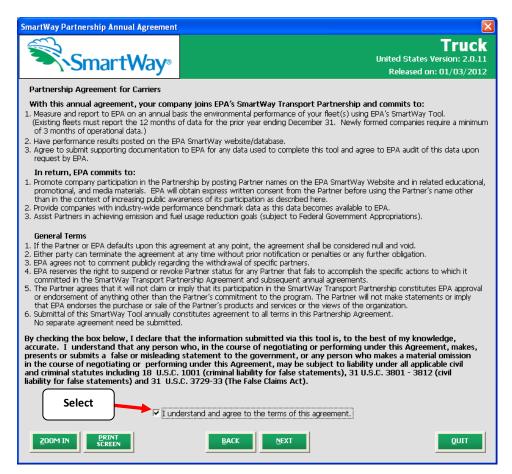


Figure 16: SmartWay Partner Agreement

After selecting the button on the SmartWay Introduction screen, the SmartWay

Partnership Annual Agreement will appear. This screen replicates the agreement language found in Part

1 of this users guide series.

Submitting a SmartWay Truck Carrier FLEET Tool to EPA constitutes agreement to all terms in the Partnership Annual Agreement, so please review this screen or the text version in Part 1 of this users guide series *before* sending your tool to EPA.

To reach the data entry sections of the tool, you must agree to this language to join the SmartWay Transport Partnership by selecting the check box at the bottom left of the screen.

SmartWay Truck Carrier FLEET Tool submissions are due on an annual basis; therefore, when you submit your tool each year, this will constitute your renewal of your partnership agreement. Failure to send your annual tool update will constitute a violation of the terms of the agreement and will result in immediate removal of your company name/fleet from the SmartWay partner list.

**NOTE:** While in the past, SmartWay supported a lengthy warning process for partners that were delinquent submitting their partnership materials, due to the large number of partners currently joining and submitting materials to SmartWay, this level of customized service can no longer be supported.

# The "SmartWay Tool Selection" Screen

SmartWay offers several FLEET tools tailored for different business models and fleets. Most trucking companies will use the Truck Carrier FLEET Tool; however, it is advisable to review the checklist in Part 1 of the user guide series and/or this screen in the Truck Carrier FLEET Tool to make sure it is the best option for your operations.

This screen provides basic information on three SmartWay tools (Truck, Logistics, and Multi-modal) appropriate for different types of trucking operations. Your choice of tool will depend primarily on the transport modes you utilized and the amount of business you contract to other companies.

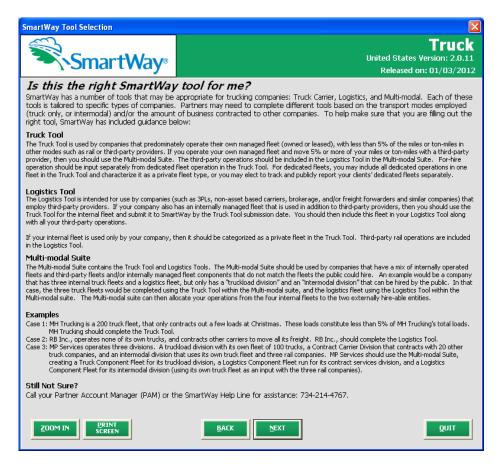


Figure 17: Determining Which Tool is Appropriate for your Fleets/Divisions

## The "Required Information" Screen

This screen provides a summary listing of the information you will need to collect to complete the SmartWay Truck Carrier FLEET Tool. Each of these items is discussed in detail later in this guide. Please refer to Part 2 of this guide series for a further discussion of the process used to gather the necessary data for the tool.

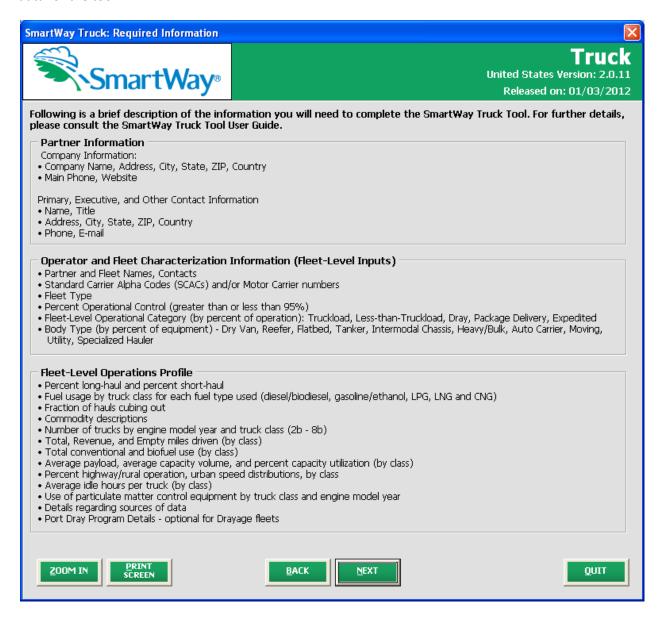


Figure 18: Summary of Required Information

Once you have navigated through the four introductory screens, you will be taken to the SmartWay Truck Carrier FLEET Tool "Home" screen.

# Navigating the "Home" Screen

Figure 19 displays the structure of the Home screen.



Figure 189: Main Tool Navigation or "Home" Screen

From the **Home** screen, you can:

- Specify your Partner Name;
- 2) Fill out company contact information;
- 3) Characterize your fleet(s)/divisions and create your blank data entry forms;
- 4) Enter the required data for each fleet/division;
- 5) Compare current data with previous years;
- 6) View results of your data entry; and
- 7) Create final version to submit to EPA.

There are seven sections on the **Home** screen. Each section links to additional screens or worksheets within the tool which are described below:

**1. Enter Partner Name:** Specify your company's Partner Name, exactly as you want it to appear on the SmartWay website.

#### 2. Enter Company Contact Information

a. **Go to Contact Information Screen**: This button takes you to a screen that asks for general company contact information, a primary SmartWay point of contact, and an executive-level contact. Additional contacts may also be included.

#### 3. Characterize your Fleets/Divisions

a. **Go to Fleet Characterization Screen**: On this screen you will define all the fleets/divisions your company operates and provide information describing their operation. Once these parameters are defined, the software will enable you to generate blank data entry forms for each fleet/division.

#### 4. Enter Activity and Fuel Consumption Information for each of your Fleets/Divisions

a. **View or change the selected fleet**: These screens ask for the performance and fleet/division composition information necessary to calculate efficiency metrics for your fleet(s)/division(s).

#### 5. Review Year-to-Year Comparison of Fleets/Divisions

- a. This optional step allows you to compare previous year data entries to one another or to the data entered for the current year. The comparison reports provide a useful tool for performing quality control of current data, as well as a method for evaluating trends in operation changes, activity levels and fleet/division performance over time.
- **6. View Reports**: Here you can see final summaries of your data including all data inputs, fleet/division performance summaries, an "out of range" report summarizing inputs that are higher or lower than expected values, and a summary of entered comments.

#### 7. Create Final Version

a. **Generate File to Send to EPA**: This button creates a version of the tool for you to send as an attachment in an e-mail to your Partner Account Manager (PAM).

Selecting the **OK** button on this screen does *not* automatically submit the tool to EPA; you still need to submit it to EPA by attaching it in an e-mail.

#### **Entering Your Data**

The first four sections of the home screen must be completed in order, and comprise all the steps needed to complete your SmartWay Truck Tool. After they are completed, you can review your output and/or submit your tool to EPA.

#### **Saving Your Data**

At any stage of the process above, you can save the data you have entered by selecting the "Save" button that appears at the bottom of all screens (including the **Home** screen). We recommend saving your data frequently if you are entering information for large numbers of fleets/divisions and/or vehicle classes.

#### **Validating Your Data**

The SmartWay carrier tools include a variety of range checks and other validation rules designed to help identify potential data entry errors and/or unusual data values. In order to identify potential problems with your data entry and ensure the highest quality in your data submission, we highly recommend selecting the "Validate Screen" button at the bottom of each screen after completion of each data entry screen. The tool will then identify any potential data problems on that screen for you to modify or to provide a text explanation.

#### **Reviewing Your Data**

Each screen within the tool has a button. If you need a hard copy of introductory screen text

you may select this button to send a copy to your default printer. Selecting the button on data entry screens will direct you to a specific report under the **Reports Menu**. The data reports provided by the Truck Carrier FLEET Tool are discussed in detail in the **View Reports** section of this guide.

# **Entering Your Data**

You must complete the first four sections of the **Home** screen <u>in order</u>. The next four sections of this guide explain how to enter your data on each of the required and optional screens.

## **Section 1 Data Entry: Enter Partner Name**

Here you must specify your company's Partner Name, exactly as you want it to appear on the SmartWay website. For example, if your company's name includes "Inc." or "Ltd.", you may choose not to include that in your Partner name. Please also pay special attention to proper capitalization, abbreviations, and punctuation.

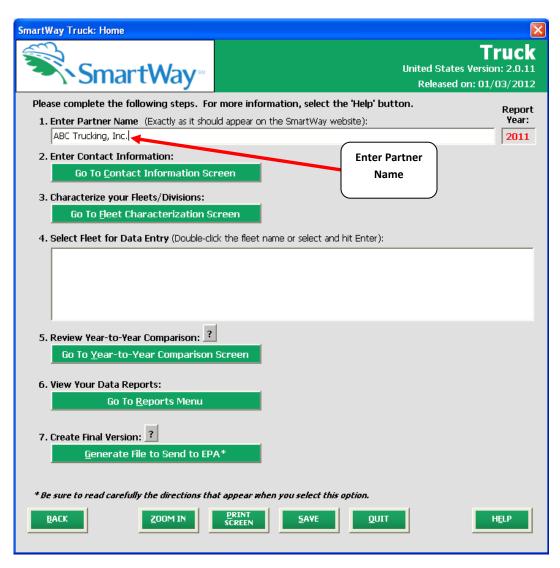


Figure 20: Enter Partner Name on "Home" Screen

# Section 2 Data Entry: Enter Company and Contact Information

PLEASE REFER TO <u>WORKHEET #1: Company Contact Information</u> from Part 2 of this guidance to complete this section of the Truck Carrier FLEET Tool.

From the Home screen, select the button that says "Go to Contact Information Screen".

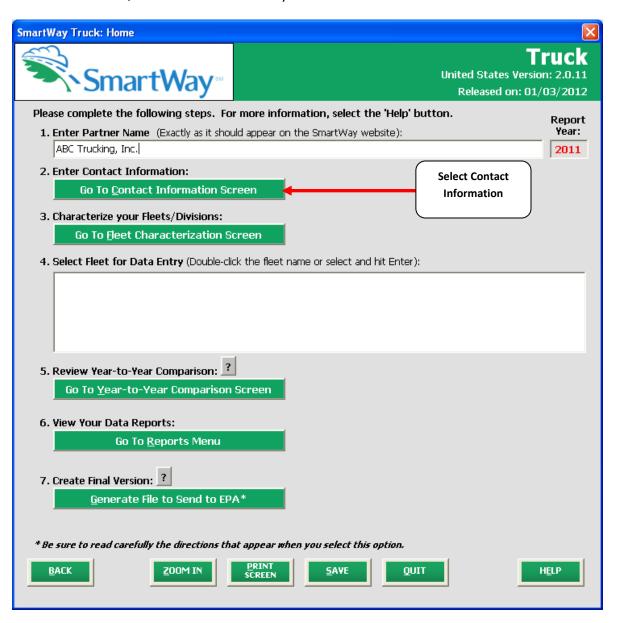


Figure 21: Select Contact Information Button on "Home" Screen

You will then be taken to the "Contact Information" Screen. The Partner Name entered on the Home screen will appear automatically at the top (see arrow in **Figure 22**). On this screen you will provide the following information:

- 1. Company Information
- 2. Primary Contact information
- 3. Executive Contact (Vice President or higher)
- 4. Other Contacts

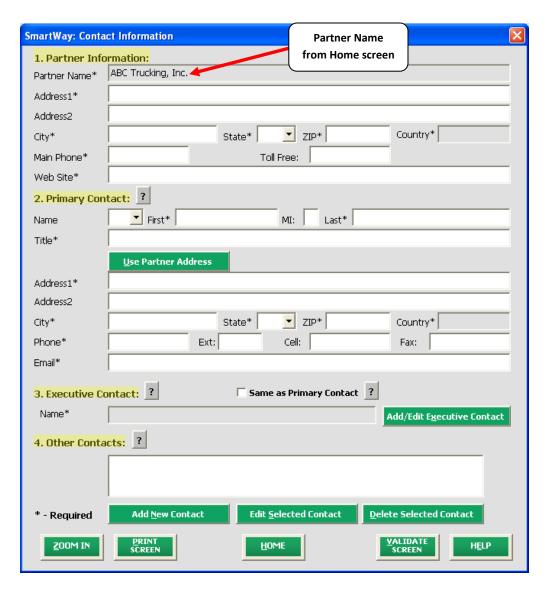


Figure 22: Blank Contact Information Screen



**Each field marked with an asterisk must be filled out.** You will not be able to submit the tool to SmartWay without this information.

#### **Steps for Entering Contact Information:**

- Enter the Partner Information in section #1.
- Enter the Primary Contact information in section #2.

The primary contact is the individual designated by the Executive Contact to directly interface with SmartWay regarding specific tasks involved in the timely submission of the tool. The Primary Contact is responsible for coordinating the assembly of information to complete/update fleet/division data; completing and updating the tool itself; maintaining direct communication with SmartWay; and keeping interested parties within the company apprised of relevant developments with SmartWay. (NOTE: To ensure that e-mails from SmartWay/EPA are not blocked, new primary contacts may need to add SmartWay/EPA to their preferred list of trusted sources.)

If the Primary Contact shares the same address as the company, you may select the Use Partner Address button to auto –populate the address section of this record.

Enter the Executive Contact information in section #3 by selecting the
 Add/Edit Executive Contact
 button to the right; enter the required data.

The executive contact is the company executive who is responsible for agreeing to the requirements in the SmartWay Partnership Annual Agreement, overseeing the Primary Contact (as appropriate), and ensuring the timely submission of the tool to SmartWay. The executive contact also represents the company at awards/recognition events. This person should be a Vice President or higher level representative for the company.

If the Primary Contact and Executive Contact are one in the same, simply check the

Same as Primary Contact
box to auto-populate the Executive Contact information.

• Enter Other Contacts (if applicable) in section #4 by selecting the button. A new contact field will appear, labeled Other Contact Information (not pictured).

Enter the first Other Contact then select **OK** when done.

NOTE: In some cases, companies with multiple divisions/business units will gather information from different sources within the company. You may find it useful to have this additional contact information stored within the tool. Also, anyone who is the primary contact for a particular fleet/division (who is not also either the Primary or Executive Contact) will need to be entered as an Other Contact. This will be important in Step 3 (Fleet Characterization).

You can add more names to the **Other Contacts** box by repeating this process. If you wish to edit an existing contact's information, highlight the name you wish to edit and then select the

Edit Selected Contact button.

You can remove an existing contact by highlighting the contact and then selecting **Delete Selected**Contact.

Same as Primary Contact 3. Executive To make sure you have filled out all required Contact\* Jack Small VALIDATE SCREEN contact information, select 4. Other Contacts: at the bottom of the screen. If any information is Add New Contact missing, a dialogue box will appear informing you **Edit Selected Contact** what additional information is required. \* - Required HOME When finished select the button to return to the **Home** screen and go to Section 3.

#### **Section 3 Data Entry: Define your Fleets**

PLEASE REFER TO <u>WORKHEET #2: Fleet/Division Characterization</u> of Part 2 of this guidance to complete this section of the Truck Carrier FLEET Tool.

Next, on the **Home** screen select Go To Fleet Characterization Screen to display the **Fleet**Characterization screens. This is the section where you will define the various components of your fleets/divisions.

There are four screens in the Fleet Characterization section of the tool:

- 1. Identify Fleets/Divisions
- 2. Fleet/Division Details
- 3. Operation Categories
- 4. Body Types

Screen 1, Identify Fleets/Divisions is shown below:

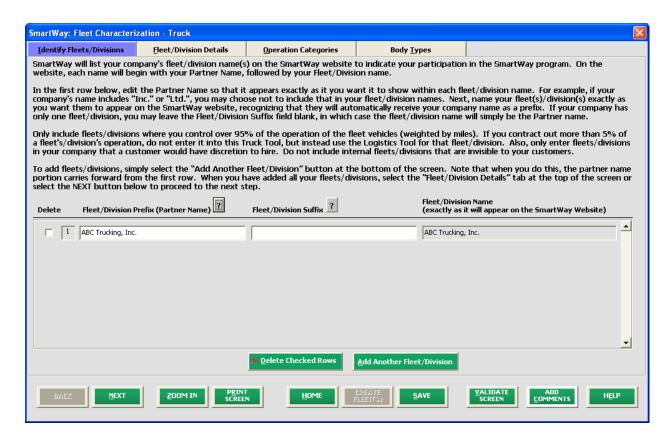


Figure 23: Blank Identify Fleets/Divisions Screen

#### Steps for Completing "Identify Fleets/Divisions" Screen:

For each fleet/division, you will need to specify:

• Fleet/Division Prefix (Partner Name): On the SmartWay website, each of your fleet/division names will begin with the name of your company. This fleet/division "prefix" will be whatever you enter in the Fleet/Division Prefix (Partner Name) field on the Identify Fleets/Divisions screen. By default, this field is automatically populated with the first 50 characters of the Partner Name that was entered on the Home screen. You should specify the Fleet/Division Prefix so that it appears EXACTLY as it you want it to show within each fleet/division name. (For example, if your company's name includes "Inc." or "Ltd.", you may choose not to include that in your fleet/division names.) Please pay special attention to proper capitalization, abbreviations, and punctuation.

Remember that this name will be automatically inserted at the start of each of your fleet/division names on the SmartWay website. Whatever you enter for Fleet/Division Prefix for the first fleet/division will automatically be used for any additional fleets/divisions you add. Similarly, any edits you make to the Fleet/Division Prefix for the first fleet/division will automatically be reflected on each subsequent fleet/division.

• Fleet/Division Suffix: Please make sure to specify each fleet/division suffix name exactly as you want it displayed on the SmartWay website, including proper capitalization, any abbreviations, and punctuation. Remember that it will automatically be combined with the Fleet/Division Prefix (Partner Name) field. NOTE: If you have only one fleet/division, you may leave the Fleet/Division Suffix field blank, in which case your fleet/division name will simply be your Partner Name.

#### **Adding Fleets/Divisions**

To enter another fleet/division, select the Add Another Fleet/Division button. To delete a fleet/division, select the box next to the row you wish to delete, and then select the Delete Checked Rows button.

Once you have confirmed or modified the Partner Name and specified the Fleet/Division Suffixes, the full Fleet/Division Names will be displayed on the screen to the right, exactly how they will be displayed on the SmartWay website.

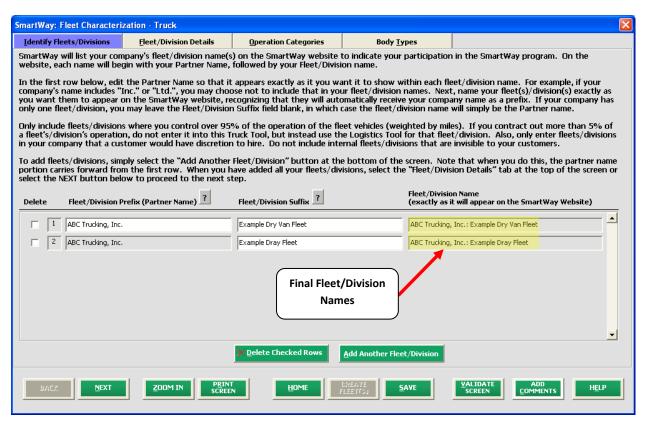


Figure 24: Example Fleet/Division Definition - Identify Fleets/Divisions Screen

Remember to create separate fleets/divisions for each entity your customers have discretion to hire.

<u>Example</u>: You have a for-hire fleet/division, but you maintain specific contracts with a company, making part of your fleet essentially dedicated to that company. Given this scenario, you should be able to account for the mileage and fuel use for the for-hire portion of your fleet/division, as well as the dedicated portion.

According to your records, the portion of the fleet that is essentially dedicated accounts for 30% of your total mileage.

<u>How to enter these Fleets in the Truck Carrier FLEET Tool:</u> Define a fleet for your for-hire operations, and label it as such. Define a separate fleet for your dedicated operations and label it accordingly.

#### **Adding Comments/Notes**

Creating useful comments assists SmartWay tool reviewers in approving your tool as quickly as possible. Your comments help reviewers understand your business operations. Any details that you can provide related to your operations will speed up approval time.

Please note the button located at the bottom of the screen. This allows you to enter notes about the collection process, your assumptions and methods, data, or other information. These details could prove useful for your reviewer when you or someone else fills out the tool next year.

If comments have been added for a particular screen, the

e button will be highlighted in

yellow on your screen and will now read to indicate to your reviewer that there are comments to be read.

A button is also available should you need assistance. You will also notice small gray icons with question marks [?] displayed throughout the tool. When selected, these icons provide additional information about specific items located on the screen.

To proceed, select the <u>Fleet/Division Details</u> tab at the top, or simply select the the bottom of the screen.



Before proceeding to the next screen however, a popup screen will appear asking you to verify that the name(s) of your fleet(s)/division(s) are correct – see Figure 25. Please verify that the fleet/division name(s) are exactly as you want them to appear on the SmartWay website, indicating

your participation in the SmartWay program. Note that if you enter your company name in all CAPS, that is how it will appear on the website. Select **OK** to proceed to the next screen. You may return to this screen later to revise your fleet/division name(s) if necessary.



Figure 25 Fleet Name Verification Message

#### Steps for Completing "Fleet/Division Details" Screen

Using data collected using Worksheet #2: Fleet Characterization, enter data for your fleets/divisions. For each fleet/division, you will need to specify:

• <u>Percent Operational Control:</u> For each fleet/division, if you control over 95% of the operation of the vehicles (weighted by miles) please check the box labeled "95+% Control". "Control" means that you operate/route the vehicles, regardless of ownership status. Control includes dedicated fleets/divisions that you operate for other parties. *If you contract out more than 5% of a fleet's/division's operation, the SmartWay Logistics Tool should be used for that fleet/division.* 

The key question regarding definition of "control" is: Am I able to influence the fuel efficiency of the trucks, and can I collect data on the trucks? SmartWay understands that control within the trucking business exists along a continuum. On one hand, some fleets/divisions purchase their own trucks, spec, maintain, and route the trucks, and have full operational control over the trucks, for example controlling the speed the trucks are allowed to drive, when and where they can idle, etc. These fleets/divisions have a high degree of control. On the other end of the continuum, some companies hire other parties to move the freight, and other than assigning a load with a pickup/destination point, have no interaction with the freight delivery, or ability to influence the fuel efficiency of the truck or the collection of data on the truck.

If you can actively affect the fuel efficiency of the truck and collect the data necessary on that truck to include in this tool, you have control. SmartWay understands that there are many organizational/operational permutations in the trucking industry and there may be "gray" areas that need further clarification. If you still have questions, you may contact your assigned SmartWay Partner Account Manager or the SmartWay help line at 734-214-4767.

<u>Standard Carrier Alpha Codes (SCACs):</u> The Standard Carrier Alpha Code is a unique 2-4 alphabetic character code used by the transportation industry to identify transportation companies. If your fleet/division has a SCAC, please input that information. If you have a single

fleet/division that has multiple SCACs, enter all of the codes into the SCAC field, and separate them with commas. While it is not required to enter SCAC information for each fleet/division, it will help shippers searching by those parameters in the SmartWay database to easily find your fleet/division for inclusion in their Shipper Tool. SCACs are assigned by the National Motor Freight Traffic Association, Inc., (NMFTA). If you cannot remember your SCAC(s), please contact NMFTA before proceeding. You can find NMFTA contact information at <a href="http://www.nmfta.org/Pages/ContactUs.aspx">http://www.nmfta.org/Pages/ContactUs.aspx</a>.

- Motor Carrier Numbers (MCNs): The Motor Carrier Number is a 6 or 7 digit number provided by the Federal Motor Carrier Safety Administration. If your fleet/division has a Motor Carrier Number, please input that information. While it is not required to enter MCN information for each fleet/division, it will help shippers searching by those parameters in the SmartWay database to easily find your fleet/division for inclusion in their Shipper Tool.
- <u>Fleet Type</u>: Fleet Type is defined as the service type for your fleet/division. There are two options accepted by the tool—"For-Hire" and "Private/Dedicated." If your company has only one fleet/division, your "Fleet Type" selection will reflect your company's operations as a whole. If there are multiple fleets/divisions, each will have its fleet type defined separately.
- Fleet/Division Contact: This contact should be one of the contacts you already identified in the Contact Information section as the contact for each fleet/division. NOTE: A drop-down menu in the tool will supply this information; if there is a contact for the fleet/division that is not already listed in the Contacts worksheet, you will need to go back to the Company and Contacts screen to add the required contact information.

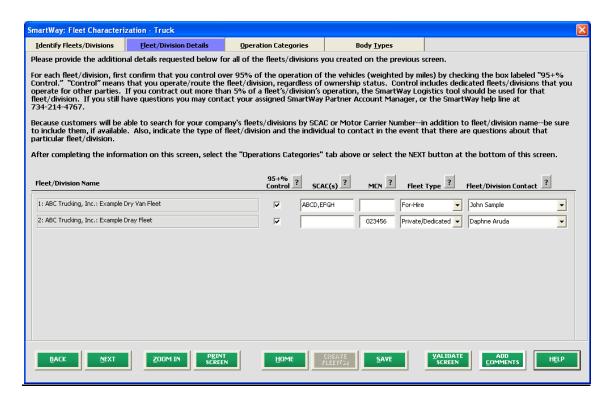


Figure 26 Fleet/Division Detail Screen - Example Fleet/Division Inputs

#### **Steps for Completing "Operation Categories" Screen:**

Using data collected using Worksheet #2: Fleet Characterization, enter data for your fleets/divisions as shown below.

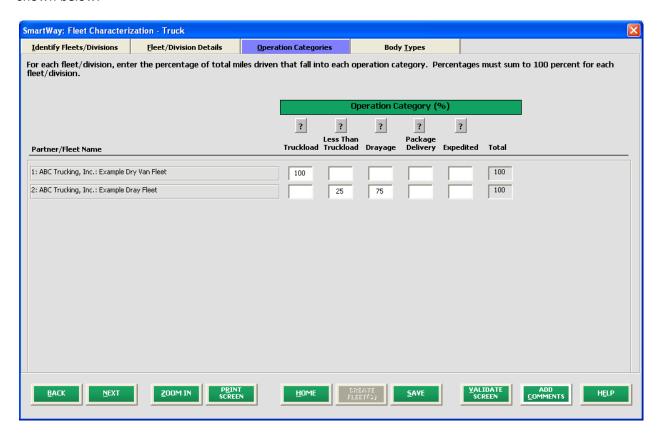


Figure 27 Operation Categories Screen – Example Fleet/Division Inputs

For each fleet/division, fill out the **Operation Category (%)** information by indicating the percentage of operation on a mileage basis. Operational categories include:

- Truckload (TL) Truckload shipping is the movement of large amounts of homogeneous cargo, generally the amount necessary to fill an entire semi-trailer or intermodal container. A truckload carrier is a trucking company that generally contracts an entire trailer-load to a single customer.
- Less-than-truckload (LTL) Less-than-truckload carriers collect freight from various shippers and consolidate that freight onto enclosed trailers for linehaul to the delivering terminal or to a hub terminal where the freight will be further sorted and consolidated for additional linehauls.
- **Drayage** Predominantly associated with port, or rail-head connections where freight is picked up, and moved to another transfer facility or transport mode terminal. Often these moves are short in nature, but can be longer depending on specific situations.

- Package delivery (PD) Covers operations characterized by residential or business
  package delivery/pickup consisting primarily of single or small groups of
  packages. It does not include larger scale pickup delivery operations that are more
  properly characterized as LTL operations. Common examples of this type of operation
  are the brown UPS and white FedEx delivery vehicles.
- **Expedited** Time-sensitive freight shipments, with trucks typically on stand-by.

Enter the percent of each operational type based on approximate mileage. This percentage calculation does not need to be exact but should be reasonably reflective of your fleet/division.



**NOTE:** Define your fleets/divisions based on the ability of your customers to choose them. If a fleet/division is a mix of TL and LTL, you will indicate the percentages of each. If customers can choose to hire your TL fleet/division, your LTL fleet/division, or your dray fleet/division separately, then each should be regarded as a separate fleet/division.

#### Steps for Completing "Body Types" Screen:

Next, fill out the **Body Type** fields, indicating the percentage by body type for each fleet. Body Type categories include:

- Dry van
- Refrigerated (Reefer)
- Flatbed
- Tanker
- Intermodal chassis containers (pooled and owned)
- Heavy/Bulk hauler
- Auto carriers
- Moving
- Utility<sup>1</sup>
- Special hauler (e.g., Hopper, Livestock, and other specialized carriers)

The percentages specified can be approximate, based on vehicle populations. The percentages for each fleet/division must sum to 100%.

Once you are sure your information is input correctly, you may select the bottom of the page.

CREATE | button at the

<sup>&</sup>lt;sup>1</sup> The utility category encompasses class 2b to 8b vehicles that do not carry typical commercial freight. Examples include garbage, recycle, service, work, dump, landscape, cement, bucket, boom, ambulance, armored, fire, farm, wrecker and other similar trucks. Because these trucks do not carry traditional freight payload, the user should self-define their payloads so as to make the emissions per payload efficiency useful to the user. SmartWay will not use the emissions per payload results for the utility category. Users may experience yellow or red warning labels on the Activity screen due to the unique nature of utility "payload." In the case of red alerts, simply input text defining your special conditions in the required text boxes that appear.

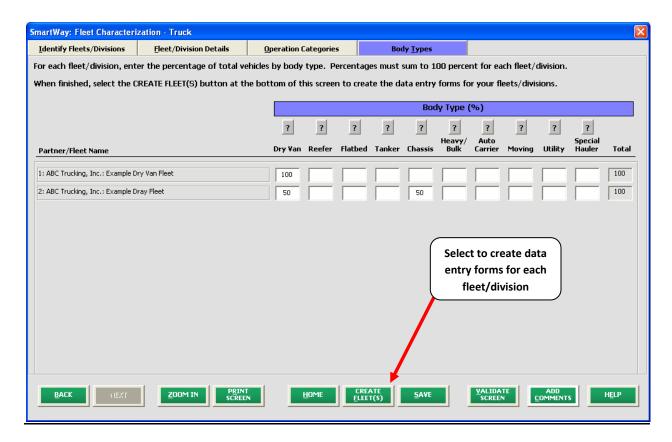


Figure 28 Body Types Screen – Example Fleet/Division Inputs

If, at a point later in the data entry process, you realize that you need to add a new fleet/division or delete an existing fleet/division, you can return to the **Identify Fleets/Divisions** screen. To add a new fleet, follow all of the instructions on the screen regarding defining your fleets/divisions, including

selecting the button at the end of the process. When you select this button, the system will create blank data entry forms only for the new fleet(s) /division(s) you have added; the existing fleets will not be affected.

If you need to delete an existing fleet/division, simply check the box next to the fleet/division and then select the **Delete Checked Rows** button.



## **Reviewing Fleet/Division Status**

On the **Home** screen, you will now see all the fleets/divisions you created listed in the window below item # 4: **Select Fleet for Data Entry**.

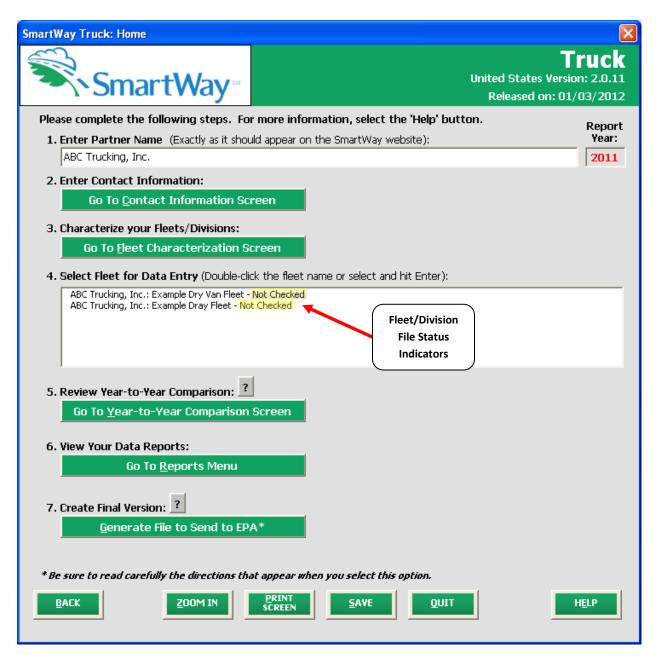


Figure 29 Home Screen - Fleet/Division Status Prior to Activity and Fuel Data Entry

There will be a status message after each fleet/division, indicating whether or not the data entry for that fleet/division is complete. The following information may appear beside a fleet/division name:

- Not checked Data has not been entered yet.
- Incomplete Some data is still missing and/or inconsistent.
- Complete All data requirements have been met and validation has occurred.

In addition to the status indicators above, you may also see one of two qualifiers: "Errors" or "Warnings."

- Errors will prevent you from generating the Internal Metrics Reports and must be addressed before you can submit your tool to EPA (although you will be able to use the Year-to-Year Comparison Report to help identify missing data or otherwise clarify uncertainties by referring to previous year submittals).
- Warnings will still allow you to run the Internal Metrics Reports and submit your data to EPA.
  However, it is strongly recommended that you carefully review each warning message before
  sending your data to EPA so that you can anticipate questions that may come from a partner
  account manager (PAM) as a result of your data being outside the expected ranges. The method
  of addressing errors and warnings is described for the various input screens in the following
  sections.

To add data to a particular fleet/division file, highlight the fleet/division name and then double-click. You will then proceed to the tool Data Entry Screens.

# Section 4 Data Entry: Enter activity and fuel consumption information for each of your fleets/divisions

## **Steps for Completing "General Information" Screen**

At this stage, you will be entering information about each fleet/division separately. For each fleet/division you will first fill out the **General Information** screen. This screen asks you to specify which fuels the fleet/division uses. When you select a fuel type, a tab for that fuel type becomes active and accessible at the top of the screen, and will require data entry before you can submit the tool.

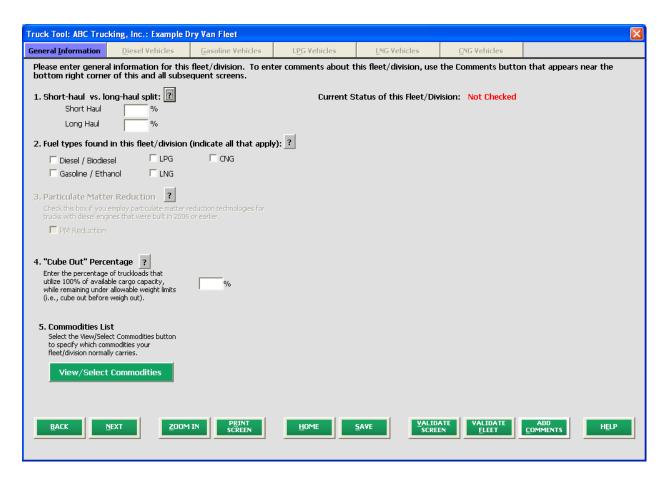


Figure 30 Blank Data Entry Screen for First Example Fleet/Division - General Information

PLEASE REFER TO <u>WORKHEET #3: General Fleet/Division Information (pages 1 and 2)</u> in Part 2 of this guidance to begin data entry for this section of the Truck Carrier FLEET Tool. Use the instructions below if you have questions about filling in the data.



**NOTE:** If you are a new SmartWay partner you should enter the most recent 12 months of data into the tool. If you do not have a full year of operational data, please collect <u>a minimum of three months' data</u> for input into the SmartWay tool. In your next update year, you will be required to submit a full year's data.

- Specify your long-haul vs. short-haul split: Specify by using percentages. Inputting a value in one cell automatically populates the other cell to add up to 100. A long-haul is defined as any haul in excess of 200 miles.
- 2. <u>Fuel types found in this fleet</u>: Check the boxes for the fuel types you use. Once you check these boxes, the appropriate fuel type tab (along the top of the screen next to the <u>General Information</u> tab) will become active. If you select the <u>Diesel/Biodiesel</u> box, the grayed-out <u>Part 3: Particulate Matter Reduction</u> section will become active.

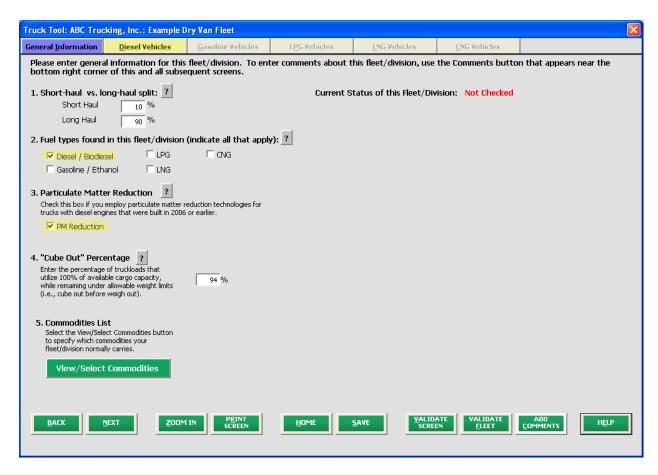


Figure 31 Completed Data Entry Screen with Activated Diesel Tab and PM Reduction Box – General Information

- 3. Particulate Matter Reduction: Check this box only if you have truck engines that are 2006 model year or earlier and are equipped with diesel retrofit particulate matter control devices (i.e., diesel oxidation catalysts (DOCs), particulate filters, or closed crankcase ventilation (CCV)). Later you will be able to provide information to calculate the particulate matter reduction associated with these technologies.
- 4. Specify Percentage of Truckloads that Utilize 100% of Cargo Capacity ("Cube Out"): Enter the percentage of truckloads utilizing 100% of available cargo capacity while remaining within allowable weight limits. This value represents the percentage of your fleet's/division's truckloads that "cube out". This value is different from the "% Capacity Utilization" value on the Activity Information screen, which represents the average fraction of available capacity utilized for all loaded trips. For example, if 50% of your truckloads cube out, and 50% of your truckloads utilize only half of the available capacity, your entry here would be 50%, but your entry for "% Capacity Utilization" on the Activity screen would be 75% (50% x 100% + 50% x 50%).
- 5. <u>Specify Commodities Shipped</u>: Select on the <u>View/Select Commodities</u> putton to select which commodity categories you typically ship. Select <u>all</u> categories that apply to your fleets.

6. Port Dray Program participation and characterization: Those fleets with 75% or more of their operation in the Dray Operation Type category are eligible to participate in SmartWay's Port Drayage Program. This voluntary program recognizes Partners for reducing diesel emissions from port drayage trucks. Appendix A to this document provides the data entry requirements for participation in this program as well as details regarding Dray Program Scoring.

You can select the button to make sure you have filled out everything on this screen

VALIDATE

properly. You can also select to check your data entries across all screens for the given fleet. Any data entry gaps or inconsistencies will be identified by the software. However, if validating the fleet/division, note that you will receive additional validation errors unless you have completed the data entry for *all* screens.

Select Select the **Diesel Vehicles** tab to proceed to the next step.

PLEASE REFER TO <u>WORKHEETS #4 and #5A-E</u> in Part 2 of this guidance to complete this section of the Truck Carrier FLEET Tool.

Under each fuel-type tab (Diesel, Gasoline, LPG, LNG, CNG) there are two screens for required data: the Model Year & Class screen, and the Activity Information screen. A third screen, PM Reduction, will appear for diesel vehicles if you checked the Particulate Matter Reduction box on the General Information screen. A fourth screen, Port Dray Program, will also appear for diesel vehicles if you checked the Port Dray Program box on the General Information screen.



**NOTE:** For each fuel type that you identified on the **General Information** screen, you will be **required** to complete the **Model Year & Class** screen AND the **Activity Information** screen. If you do not complete these screens for any of the fuels, your fleet/division will be marked as **Not Complete** on the **Home** screen and you will not be able to submit your tool.

\*\*\*The following date entry guidance will use the Diesel Vehicles fuel sections as an example. Similar procedures are required for other fuel types.\*\*\*

After completing the **General Information** screen, select the **Diesel Vehicles** tab. You will automatically be taken to the **Model Year & Class** screen for Diesel Vehicles. **Figure 32** below shows the layout of this screen.

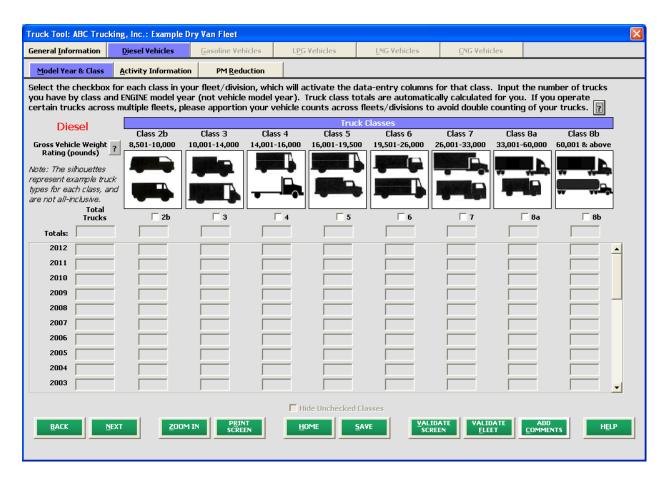


Figure 32 Diesel Vehicles Model Year & Class Screen

### Steps for Completing the "Model Year & Class" Screen

PLEASE REFER TO <u>WORKHEET #3 (pages 1 and 2)</u> in Part 2 of this guidance to complete this section of the Truck Carrier FLEET Tool.

- Begin by selecting the boxes at the top for each of the truck classes you operate in this
  fleet/division (i.e., 2b, 3, 4, 5, 6, 7, 8a, 8b). Example truck types are shown in silhouette above
  the boxes, and additional examples will be listed on the screen when placing the mouse over
  these images.
- When a Truck Class box has been checked, the data column will activate. Input the number of
  vehicles you have in each class, specifying the corresponding engine years (rather than the
  tractor model years). Use the scroll bar to the right if you need to enter information for older
  model years.
- Truck class totals are calculated automatically for you and displayed along the top row. Totals by model year are shown in the left-hand column.
- Check the box at the bottom of the screen to hide any unused truck classes if you wish.

**NOTE:** If you defined multiple fleets/divisions on the **Fleet Characterization** screen, and if you operate certain trucks across multiple fleets/divisions, please apportion your vehicle counts across the fleets/divisions to avoid double counting of your trucks. For example, if you operate the same 100 trucks across two fleets/divisions, with 20% of the truck mileage attributable to the first fleet/division, then enter 20 trucks for fleet/division #1, and 80 trucks for fleet/division #2.

You may now select or select the **Activity Information** tab at top of the screen to proceed to the next section. Before leaving the **Model Year & Class** screen, you will be prompted to confirm the accuracy of your model year and truck class selections. You may review previous year's selections by selecting the **Year-to-Year Comparison Report** on the **Home** screen.



Figure 33 Confirmation of Model Year and Truck Class Selections

Figure 34 below shows the layout of the Activity Information screen.

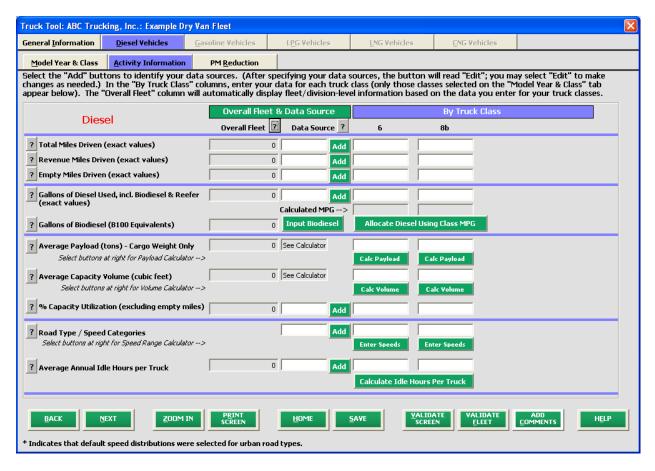


Figure 34 Diesel Vehicles Activity Information Screen

The *red text* at the top left-hand corner of this screen indicates the fuel type for which you are entering data. Enter data for each fuel type you use within your fleet/division under separate screens, including:

- Diesel and Biodiesel, entered under the same tab.
- Gasoline and ethanol, entered under the same tab.
- LPG, LNG, and CNG, each entered under separate tabs.

If you specified that you operate vehicles of more than one fuel type on the **General Information** screen, then you will also need to input data on the next fuel type tab. For instance, if you operate gasoline vehicles select the **Gasoline Vehicles** tab on the main tab bar to enter your data.

Alert! Be careful to input data under the appropriate fuel tab!

### Steps for Completing the "Activity Information" Screen

PLEASE REFER TO <u>WORKHEET #5A (page 1 and 2)</u> in Part 2 of this guidance to complete this section of the Truck Carrier FLEET Tool.

On each fuel type's Activity Information screen, you will see two main sections to input data:

- Overall Fleet & Data Source section (with a green header); and
- By Truck Class section (with a blue header).

#### To enter data for this screen:

- First select the button under the **Overall Fleet & Data Source** section to specify where you obtained your data for each row. (Once the data is entered, the **Data Source** buttons will read **Edit**, allowing you to change your choices later.)
- Use the pull-down menus on the **Data Source Description** popup screens to specify the source of information for each Data Type (listed in red at the top of the form). Most of the data source information you specify is assumed to apply across all vehicle classes in your fleet.

NOTE: EPA is collecting information about data sources as a way of validating data and establishing the accuracy of data inputs within the tool. Please enter your selected data sources in Worksheet #5A in Part 2 of this guidance. A helpful reference table with available sources is also included in Part 2 on pages 12-15.

- For each data type, you must first specify the general type of data source. For example, total mileage data may be obtained from interstate records (i.e., IFTA form 441) or intrastate records (i.e., state taxes).
- Next, additional detail must be provided regarding how the particular data was collected (e.g., via GPS or odometer readings). After selecting the Data Source and Source Detail, you may be required to provide additional information regarding the way you collected your data and associated calculation methods, as appropriate. There should be enough detail provided to confirm data validity.
- Data Source Descriptions for payload and volume are specific to each truck class, and are entered through the Payload and Volume Calculators (select access).

  Calc Payload and Calc Volume to access).

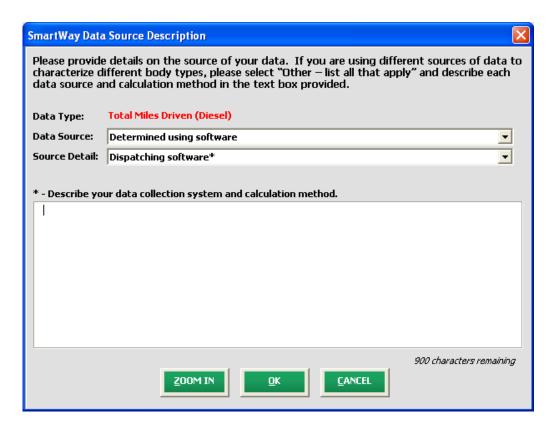


Figure 35 Example Data Source Description Screen

Once your data sources have been selected, input the requested activity information for the reporting period for each truck class in the white empty cells to the right.

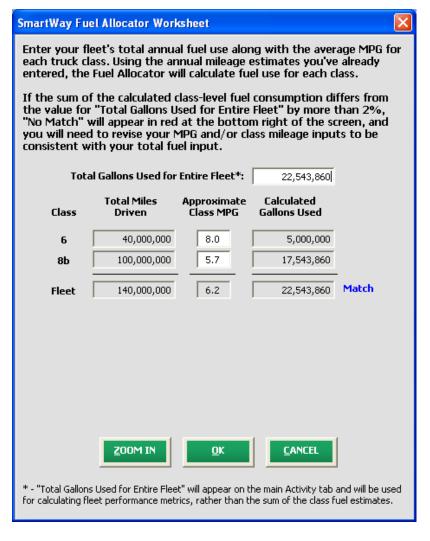
#### Please see Part 2 of this series for detailed information for each data type required by the tool.

- Total Miles Driven: Input the exact value for total miles driven collectively by this fleet/division
  by vehicle class. Include all out-of-route, positioning, and other miles driven. Once specified for
  each class, the total fleet/division mileage will be summed and displayed within the tool in the
  Overall Fleet column.
- Revenue Miles Driven: Input the exact value for the number of miles your fleet/division drove that were charged to a customer account. (If you have a private fleet/division that does not track revenue miles for internal cost accounting, set revenue miles equal to total miles DO NOT SET REVENUE MILES EQUAL TO ZERO.) This information is not used to calculate your SmartWay carbon score, but will be used determine an adjustment factor for shippers' carbon inventories<sup>2</sup>.
- **Empty Miles Driven:** Input the exact value for the <u>total</u> number of empty miles travelled by your fleet/division. Empty is defined as zero cargo. The number of empty miles will not affect your

<sup>&</sup>lt;sup>2</sup> Since shippers determine their carbon inventory based on revenue miles charged by their carriers, shippers collectively must also include the non-revenue miles in their carbon inventory. Thus shippers will be charged the carbon for the non-revenue miles that carriers have to travel. This will be calculated on an industry basis and will not affect individual carriers.

- SmartWay score. Companies in categories with high empty miles, such as tanker operations, will not be negatively affected by high empty-mile values.
- Gallons of Fuel Used: Input the exact value for all the gallons of fuel used by your fleet/division in the past 12-month reporting period. This includes any gallons with biofuels (biodiesel for diesel vehicles, ethanol for gasoline vehicles). It also includes gallons used for refrigeration, bunk heaters, yard moves, or any other gallons directly attributable to transportation. It does NOT include gallons used in heating buildings, forklifts, or other non-transportation sources.

Gallons of fuel may be input directly or may be allocated based on class-level MPG estimates using the Allocate Diesel Using Class MPG button underneath the fuel data entry cells. Figure 36 shows the Fuel Allocator Worksheet. Total miles for each truck class must be entered before you can open the worksheet.



**Figure 36 Fuel Allocator Worksheet** 

The **Fuel Allocator Worksheet** requires you to input your estimate for total fuel consumption for your entire fleet/division across all vehicle classes, as well as an MPG estimate for each truck class. The total fleet/division level fuel consumption values will provide the basis for estimating carbon performance metrics for your fleet/division.

Only those truck classes selected on the Model Year & Class screen will be displayed on the Fuel Allocator Worksheet. Using the annual mileage estimates entered on the Activity Information screen, class-specific fuel consumption levels are estimated. If the sum of the class level estimates is within 2% of the total fuel consumption level entered at the top of the form, then a "Match" is indicated on the right side of the worksheet, and you may proceed back to the Activity Information screen by pressing OK.<sup>3</sup> If "No Match" is indicated, please adjust your total fuel consumption estimate and/or your class level mpg estimates until a "Match" is obtained.

Once specified for each class on the **Activity Information** screen, the total gallons will be summed and displayed in the **Overall Fleet** column.

- Calculated/Entered MPG: This is not a direct input field. If you used the Fuel Allocator Worksheet to determine your fuel usage, the MPG fields will show the MPG estimates that you entered into that form. In this case, the label on the Activity Information screen will read "Entered MPG". Otherwise, miles per gallon estimates will be calculated automatically for each truck class, based on the input values for miles and gallons, and the label will read "Calculated MPG". In either case, this field is provided as a useful validation check for users. In addition, if the tool finds an out-of-range MPG value during its routine validations, the MPG field may be highlighted, in which case you may be instructed to double-click on this cell to provide an explanation for high/low values see additional information below regarding validation within the tool.
- during the reporting period, select the Input Biodiesel button and specify your biodiesel volumes by blend level in the Biofuel Blend Worksheet, shown in Figure 37. (A similar worksheet is available for ethanol use under the Gasoline tab see below.) Specify biodiesel volume in gallons by blend level (e.g., B20 = 20% biodiesel / 80% conventional diesel), for the reporting period. The calculator will automatically display total gallons, the weighted average blend value (across all blends), and the B100-equivalent volume at the bottom of the screen, based on your entries. After completing the worksheet, select OK, and the B100-equivalent gallons will be shown on the Activity Information screen for the fleet/division as a whole. The Truck Tool will assume that these gallons are allocated proportionally across all vehicle classes (weighted by gallons of diesel used) in order to calculate emissions.

Truck Carrier FLEET Tool Users Guide Part 3 | P. 44

<sup>&</sup>lt;sup>3</sup> Although the calculated and total fuel consumption values are within 2%, the values may not match exactly. Prior to writing the fuel consumption values to the Activity Information screen, the calculator will proportionally adjust your class level fuel consumption estimates to match your entered fleet total value.

PLEASE REFER TO <u>WORKHEET #5B</u> in Part 2 of this guidance to complete this section of the Truck Carrier FLEET Tool.

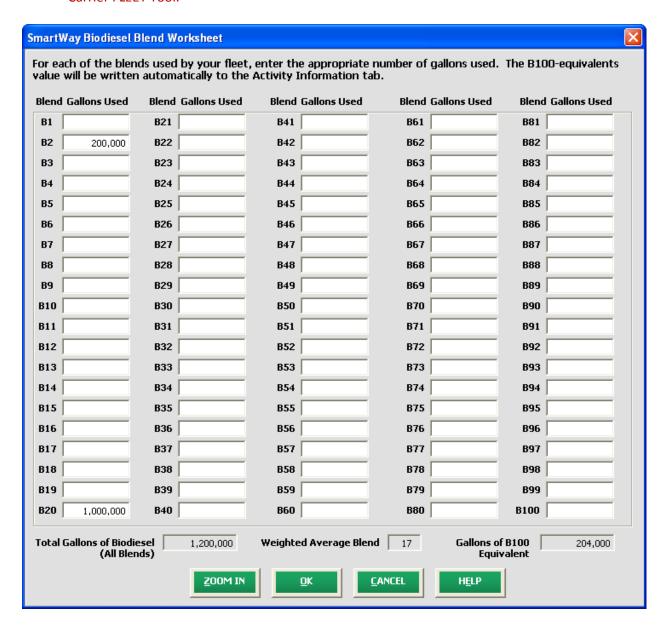
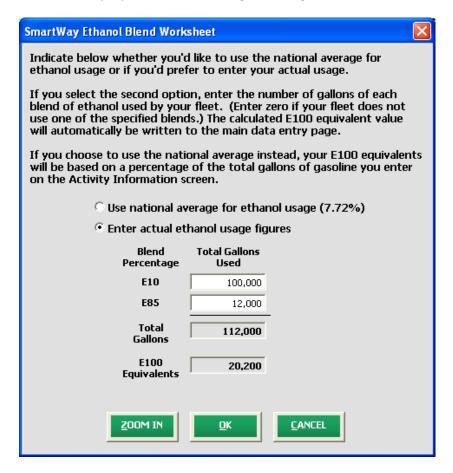


Figure 37 Biodiesel Blend Worksheet

• Gallons of Ethanol (Gasoline Vehicles only): If your fleet/division consumed any amount of ethanol during the reporting period, select the volumes by blend level (E10 or E85) in the Ethanol Blend Worksheet, shown in Figure 38.

PLEASE REFER TO <u>WORKHEET #5B</u> in Part 2 of this guidance to complete this section of the Truck Carrier FLEET Tool.

If you know the volume of ethanol used by your fleet/division, specify the volume in gallons for each blend level (E10 and/or E85), ensuring that the total volume specified does not exceed the gasoline gallon data entry provided on the **Activity Information** screen. (Enter 0 for both values if your fleet/division does not use one of these blends.) Alternatively, if you do not know the volume of ethanol used by your fleet/division, select the "**Use national average**". In either case, the total volume of ethanol at each blend level will be allocated across the different truck classes in your fleet/division in proportion to the total gallons of gasoline used.



**Figure 38 Ethanol Blend Worksheet** 

Average Payload (tons or pounds) – Cargo Weight Only: You may enter your calculated average
payloads into the tool by selecting one of the two Bills of Lading data source options within the
SmartWay Payload Calculator. In this case, you must input your specific payload information by
truck class and general body type.

Potential payload allocation methods include:

- # miles by class (PREFERRED)
- # trips by class
- % of operation by class
- # vehicles by class (LEAST PREFERRED)



**NOTE:** Payloads should represent the average cargo weight per LOADED trip – while empty backhauls should be excluded from the calculation, account for all other (non-empty) trips. In addition, users should obtain average payload data from their company's bills of lading records if at all possible.

In general, the # of miles by class method is preferred, corresponding most closely to the fleet/division performance metrics of interest (e.g., grams per mile, grams per ton-mile, etc.). On the other hand, the # of vehicles by class option is the least preferred of these options, as the body type vehicle count does not necessarily correlate closely with the performance metrics. In all cases, the values entered for each body type provide the basis for calculating the weighted average payload value for the class as a whole. For example, by specifying the mileage associated with each body type, the relative miles per year will be used to weight your payload estimates to calculate a truck class average.

Average payload values are required for each body type you select and can be entered in short tons or pounds. If you do not have precise payload estimates for a specific vehicle class, you should select the "Used ranges provided by the calculator" in the Data Source selection. Then you may select from pre-defined Ranges 1-5 (1 being the lowest payload values available, 5 being the highest.)<sup>4</sup> If you need to use different sources of data to characterize different body types, select the "Other – list all that apply" Data Source option within the Payload Calculator.

If you provide exact payload information, an explanation describing how the value was estimated will be required. In addition, if Range 1 (extreme low) or Range 5 (extreme high) values are selected, similar explanations must be provided summarizing the reasons for the unusual payload value (e.g., you may explain that a flatbed fleet/division is regularly used to transport heavy construction equipment). Worksheet # 5C in Part 2 of this guidance will help you gather the data for the payload calculations.

**Figure 39** shows the **Payload Calculator** worksheet for Class 8b vehicles. (Similar worksheets are provided for each truck class.)

<sup>&</sup>lt;sup>4</sup> Specific range values were determined based on reported industry payload distributions, and are discussed in detail in the <u>Truck Tool Technical</u> <u>Documentation http://epa.gov/smartway/documents/partnership/trucks/techdoc.pdf</u>).

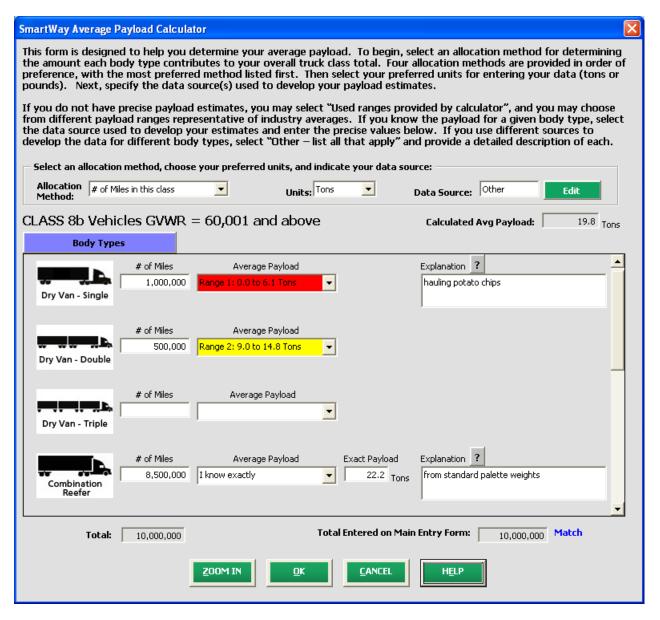


Figure 39 Payload Calculator Worksheet - Class 8b Vehicles

In the above example, the Class 8b fleet/division consists of three body types: dry van single trailer, dry van double trailer, and reefer. (Additional body types may be selected using the scroll bar to the right.) The fleet operator has chosen to allocate activity across these body types by # miles travelled - see **Allocation Method** selection cell at the top left of the screen. Potential allocation methods are listed above.

Once the miles per year values are entered for each body type, the worksheet validates the entries. If the sum of the by-body type values is within 2% of the class level mileage totals from the **Activity Information** screen, a "**Match**" is indicated and the user may proceed with the rest of the data entry. Otherwise "**No Match**" is indicated and the mileage values must be revised

until "Match" is indicated. A similar matching validation is also performed if the # of vehicles is selected as the allocation method, although in this case the match must be exact (not +/- 2%). Independent matching cannot be performed for the # of trips or % of operation allocation methods, however.

Next, average payload values are specified for each body type selected. If the "Other" Data Source category is selected, precise payload estimates may be entered directly, as was done for the Reefer category above, or by selecting from pre-defined ranges, defined as Ranges 1-5.

Once the payload calculator inputs have been completed, a class-average payload value will be calculated and displayed at the upper right of the calculator screen. This value is simply the average of the body-type payloads, weighted by the chosen allocation factor (in this case, mileage). This average payload value will then be written to the **Activity Information** screen upon selecting **OK**.

Once specified for each class, the fleet-average payload will be calculated (weighted by the number of trucks per class) and displayed in the **Overall Fleet** column on the **Activity Information** screen.

PLEASE REFER TO <u>WORKHEET #5C</u> to complete the next two sections of the Truck Carrier FLEET Tool.

• Average Capacity Volume (cubic feet): Use the calc Volume button to input your capacity information by class and body type. Volumes are specific to each major body type/configuration, and can be expressed in cubic feet or twenty-foot equivalent units (TEU). Volume refers to the total cargo-carrying capacity of your vehicles, not the utilized space on the vehicles. The volume calculator worksheet for truck classes 2b through 7 follow the same format as the average payload calculators, with various body type selections available. Similar to payload data entry, you may enter your calculated volume capacity information by selecting the "Determined using company records" Data Source option within the SmartWay Volume Calculator. Alternatively, you may select default values for each body type by selecting the "Used defaults provided by calculator" Data Source option. Finally, if you need to use different sources of data to characterize different body types, select the "Other – list all that apply" Data Source option within the calculator.

**NOTE**: When using the payload and volume calculators for class 2b through 7 trucks, make sure the body types selected are consistent across both calculators. Otherwise the tool will flag these data entries as errors during validation.

The volume calculator worksheet for classes 8a and 8b reflect a range of different, standard trailer and container configurations. **Figure 40** shows an example worksheet for Class 8b vehicles.

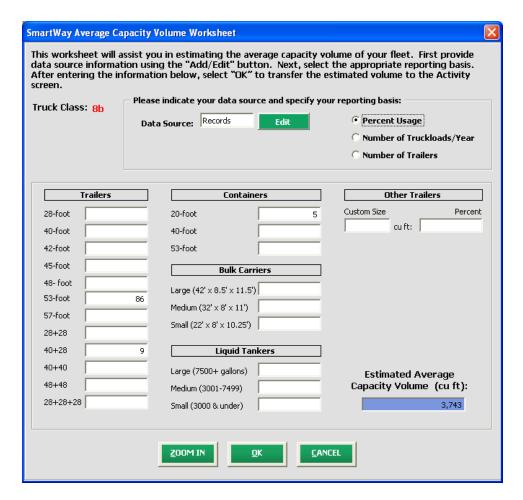


Figure 40 Volume Calculator Worksheet - Class 8b Vehicles

Once specified for each class, the fleet-average capacity volume will be calculated (weighted by the number of trucks per class) and displayed in the **Overall Fleet** column on the **Activity Information** screen.

• \*\*Capacity Utilization (excluding empty miles):\_Percent capacity utilization applies only to loaded (non-empty) miles. For most carriers, this will reflect your loaded volumetric fill rate. LTL carriers should estimate the weighted average fill rate over the span of operations. Flatbed haulers may estimate fill rate based on deck area covered. Auto carriers may estimate based on percent of car slots filled. Worksheet #5A in Part 2 of this guide will help you gather capacity data.



NOTE: Do not factor in empty miles for percent capacity utilization.

Once specified for each class, the fleet-average percent capacity utilization will be calculated (weighted by the number of trucks per class) and displayed in the **Overall Fleet** column.

- % Highway or Rural Driving: Indicate the percentage of total miles spent driving in highway vs.
  rural conditions (e.g., on restricted access roads such as freeways, or in non-urban areas) by truck
  class. Worksheet #5D in Part 2 of this guidance will help you gather data for highway vs. rural
  driving.
- Average Urban Speed Distribution: Within the Road Type / Speed Category popup screen, input the percent of total miles by class spent driving in urban conditions (e.g., on unrestricted access surface streets in urban areas), by speed category (0 25 / 35 50 / 50+ mph). This data should be available from your vehicles' electronic control modules (ECM). If you do not know your speed distribution for urban areas, you may check the box labeled "Populate the urban driving fields with default values", and default percentages will be calculated based on data from EPA's MOVES model, adjusted for the Highway/Rural Driving percentage specified. (For further details see the <a href="Truck Tool Technical Documentation">Truck Tool Technical Documentation</a> available at <a href="http://epa.gov/smartway/transport/documents/fleet-models/truckingmodel-technicaldoc-recent.pdf">http://epa.gov/smartway/transport/documents/fleet-models/truckingmodel-technicaldoc-recent.pdf</a>). Worksheet #5D in Part 2 of this guidance will help you gather data for urban speed distributions.
- Average Annual Idle Hours per Truck: Enter the average annual idle hours per truck by class.

  Alternatively you can select the Calculate Idle Hours Per Truck button to calculate this value based on fleet/division totals. Figure 41 shows the Idle Hours Calculator screen. Separate values should be input for short-duration (less than 15 consecutive minutes) and long-duration (greater than 15 minutes) idling. Once input for each truck class, select OK and the idle hours for each class will be presented on the Activity Information screen. In addition, fleet-average idle hours across all truck classes are then calculated (weighted by vehicle counts) and displayed in the Overall Fleet column. Worksheet #5D in Part 2 of this guidance will help you gather data for annual idle hours per truck.

<sup>5</sup> NOx and PM emission rates are different for short and long-duration idling, reflecting the varying engine loads and operating temperatures for these events. At this time the SmartWay emission calculations do not distinguish between these events, although different emission factors may be integrated in future versions of the model.

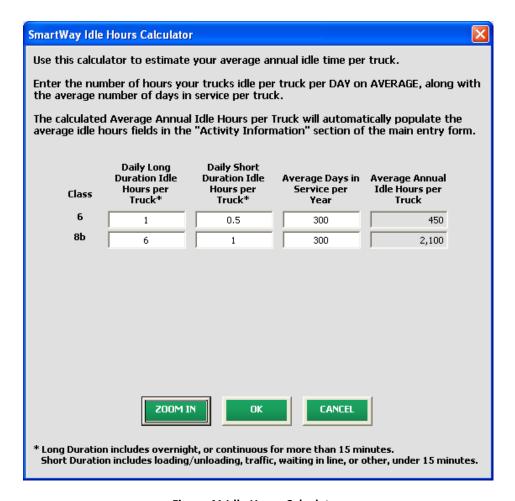


Figure 41 Idle Hours Calculator

After completing the **Activity Information** screen, if you are using PM reduction equipment select the **PM Reduction** tab at the top of the screen to proceed to the next section.

If you have finished inputting data for this fuel type, select the tab for the next fuel type and complete all screens as indicated above.

If you have finished inputting data for all of your fuel types, select the the **Home** screen.



Remember! You must complete the Model Year & Class and Activity Information screens for <u>each</u> of the fuel types you operate.

Do NOT move on if you have not completed the data input for each of your fuel types, or if you have received "no match" messages.

### Steps for Completing the "Diesel Vehicles: PM Reduction" Screen

PLEASE REFER TO **WORKHEET #5E** in Part 2 of this guidance to complete the next section of the Truck Carrier FLEET Tool.

The PM Reduction screen is for fleets that have installed retrofit equipment on pre-2007 engines. Select the radio button to select the type of device (DOC, CCV, or PM trap), and then enter the number of trucks equipped with the device by <a href="engine">engine</a> (not vehicle) model year. To input data for multiple devices, select the radio button for the next type of device after completing input for the initial device, and fill out the new blank fields that appear.

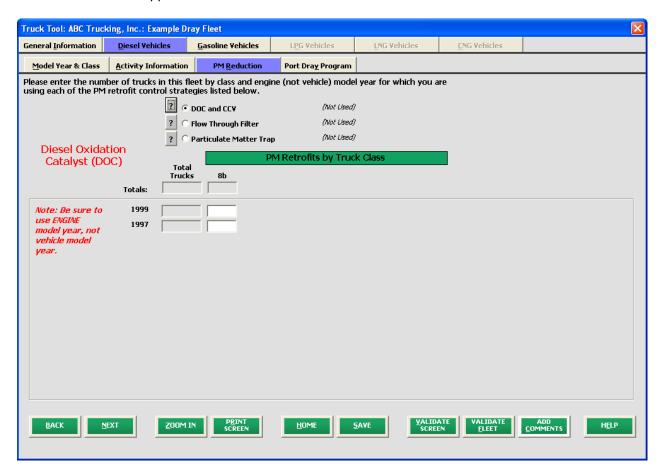


Figure 42 Diesel Vehicles Particulate Matter Reduction Screen

Totals for any given model year cannot exceed the totals specified on the **Model Year & Class** screen. While CCVs may be installed in combination with either DOCs or PM traps, it is assumed that DOC and PM trap applications are mutually exclusive. As such, the sum of DOC and PM trap trucks cannot exceed the totals specified on the **Model Year & Class** screen.

When done, you can select to make sure you have filled out everything properly on this screen. Then select the button to return to the **Home** screen.

### **Data Validation**

As discussed, certain validation checks are embedded at different points in the tool to ensure data quality. For example, checks on total mileage or number of vehicles are made before exiting the Payload and Volume Calculators. However, additional validation checks are made before exiting other input screens throughout the tool. Critical checks are made regarding calculated miles per gallon (by class), annual miles per truck, and a number of other inputs, to help ensure the reasonableness and quality of Partner data. (Please refer to the **Truck Tool Technical Documentation** for a detailed discussion of all validation criteria used within the tool.)

At any time you can select the VALIDATE SCREEN or VALIDATE buttons at the bottom of the screens to

make sure you have filled out everything properly. Note that by selecting you will receive information regarding missing or out-of-bounds values for *all* input screens, not just the current screen.) In addition, any time you leave a particular screen, the tool will automatically perform a *screen* validation. Also, any time you return to the Home screen, the tool will automatically perform a *fleet-level* validation. If you select one of the two Validate buttons, and no potential errors are identified, the following message will be displayed. Select **OK** to proceed.



Figure 43 Validation Check Notification - No Errors

If missing or potentially erroneous inputs are identified, you will see the following message.



Figure 44 Validation Check Notification - with Errors/Warnings

Select **Yes** to see a complete list of validation errors/warnings. An example **Validation Check** results screen is provided in **Figure 45**. The Why can't I make corrections?

buttons at the bottom of the screen provide additional information to assist you in correcting any errors. Specific information is also provided regarding any values that are unusually high or low compared to industry averages (e.g., see the second entry). In this case, four possible data entry problems were identified for correction: one involving a suspiciously high average empty miles per year value, one for a low MPG value, one for a missing value, and one for an unacceptable idle hour estimate. Three of the four messages involve errors that <u>must be addressed</u> through modification of the data entry (message #3 and #4), or by providing a text justification of the value by double-clicking on the highlighted cell (message #1). All three of these items must be addressed before the tool may be submitted to EPA. The remaining item (#2) is listed as a warning, and does not have to be addressed before submittal to EPA, although you may provide documentation for this value by double-clicking on this cell if you wish.

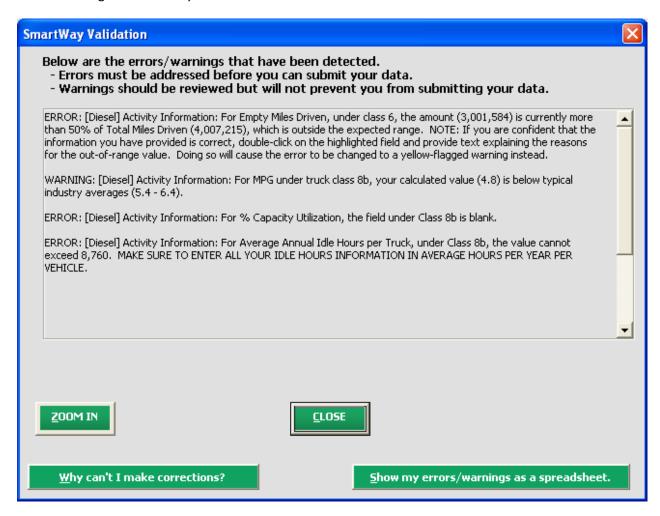


Figure 45 Validation Check Screen - Example Results

Once you close the **Validation Check** screen, you will see warnings and errors highlighted in a red or yellow on the **Activity Information** screen, as shown in **Figure 46**. Entering new data in a highlighted cell will cause the colored shading to disappear, *even if the new value is still invalid*. To check the validity of

your newly entered data, select the button again and repeat the procedure described above as necessary.

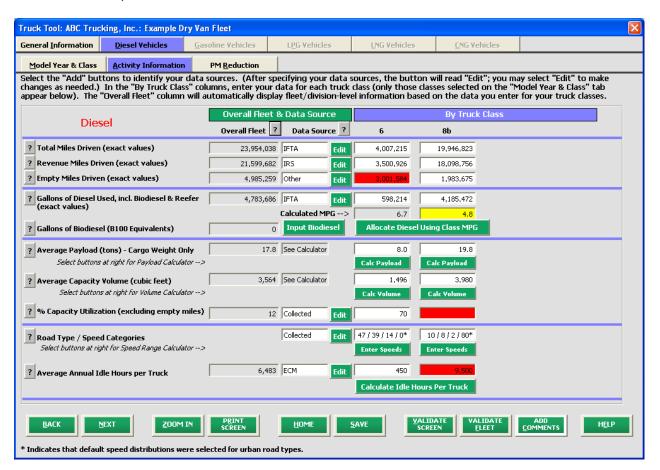


Figure 46 Validation Check - Highlighted Activity Screen

Follow these steps to check the different types of validation warnings/errors.

- First ensure that any highlighted blank cells are completed, and that all standard range checks are satisfied (e.g., all percentages must be between 0 and 100, idle hours per truck cannot exceed total hours in a year, etc.).
- If Total Miles entries are highlighted for any truck class, this means that the expected annual miles per truck have been exceeded (125,000 mi/yr for classes 2b 7, and 200,000 mi/yr for class 8s). Calculated annual mileage values are shown on the Validation Check screen. You may revise these values by adjusting either Total Miles OR the number of trucks (on the Model Year & Class screen). Unless the calculated mileage value is greater than the absolute maximum allowed

- (500,000 mi/yr), you may leave these values as they are. In this case your fleet/division will be flagged "Complete with Warnings" on the **Home** screen.
- If Revenue or Empty Miles are highlighted, check their relative relationship to Total Miles and to one another. For example, explanations are required if Revenue Miles are less than 50% of Total miles, or if Empty Miles are greater than 50% of Total Miles.
- % Capacity Utilization values of less than 45% must be explained.
- Average Idle Hours outside typical industry values (260 2,100 hours year) must be explained.
- If any calculated MPG values are highlighted, you may revise these values by changing either Total Miles OR Gallons Used. You may also double-click on the highlighted MPG cell to obtain a popup screen with additional information, as shown in **Figure 47**. This form presents the expected MPG range based on typical industry performance, as well as the calculated value for your truck class, and the "Severity" of the error identified. (Level 1 Severity indicates the value is significantly different from industry averages, while Level 2 Severity indicates a moderately out or range value.) If you believe this value is accurate, please enter a brief summary in the text box explaining the reasons for the high/low MPG value and select **OK** to return to the **Activity Information** screen. (In this case your fleet/division will be flagged "Complete with Warnings" on the **Home** screen.) Otherwise select **CANCEL** to revise your Total Miles and/or Gallons Used.

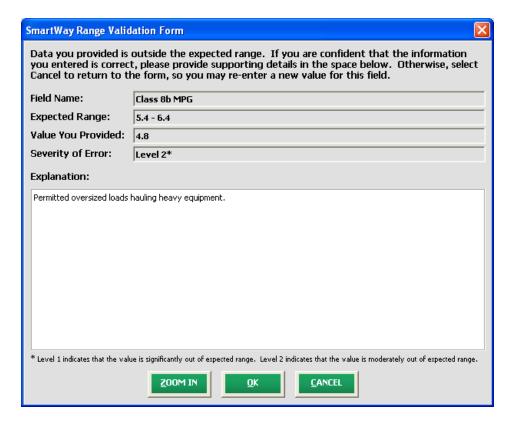


Figure 47 Validation Check – Example MPG Range Validation Form

Once all potential validation errors have been corrected or otherwise verified, select proceed to the next step.

## **Viewing Reports**

Once you have returned to the **Home** screen, notice that the fleet/division that you filled out and validated now identifies its status as "Complete." You may now highlight the next fleet/division if you have another one to complete. In the example below, the "Example Dray Fleet" fleet remains to be finished. Fill out unfinished fleets in the same manner as the previous fleet.

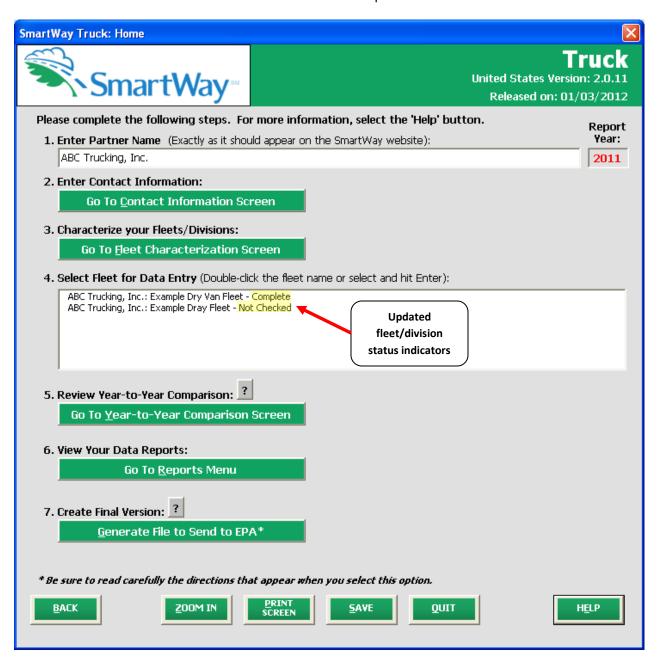


Figure 48 Home Screen - After Completing the Data Entry/Modification Process for First Fleet/Division

Once you have filled out information for all your fleets/divisions, be sure that all fleets/divisions show "Complete" or "Complete with Warnings" beside the name. If and only if all fleets/divisions are marked as such, you can move on to the next step. If one or more fleets/divisions are not marked as such, review the data you entered for errors or omissions.

#### **Viewing the Year-to-Year Comparison Report**

The Year-to-Year Comparison Report allows the user to compare the fleet/division characteristics and activity values, as well as CO<sub>2</sub> performance metrics across two different reporting years. This report is particularly helpful in identifying any changes that may have occurred since your last reporting period, determining trends in activity and performance over multiple years, and performing general quality assurance of the inputs used for your current tool. You can access this report by selecting

Go To Year-to-Year Comparison Screen under item #5 (Review Year-to-Year Comparison) on the Home screen.

Figure 52 shows the data entry screen for the comparison report. First specify the reporting years which you would like to compare under item #1. Note that your most recent year's data is already "loaded", including the data you have entered for your current fleet(s)/division(s). In order to load data for prior year fleets/divisions, specify the reporting year of interest and select the Load Data button. A screen will appear allowing you to specify the location of your prior year file, using the Browse... button as shown in Figure 53.

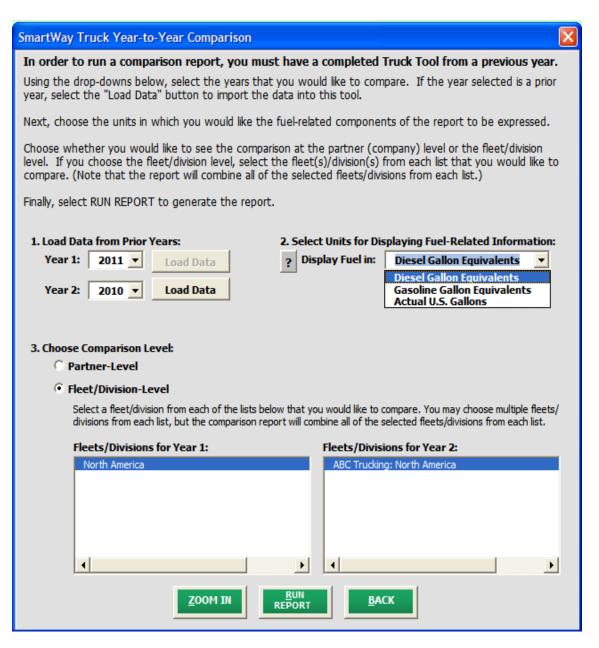


Figure 52 Year-to-Year Comparison Report Input Screen

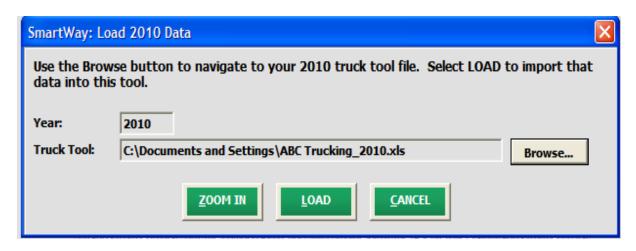


Figure 53 Data Load Screen for Year-to-Year Comparison Report

Once your comparison years have been specified and your prior year data loaded into the Truck Tool, you should specify how to display your fuel information: in diesel gallon equivalents, gasoline gallon equivalents, or simply in actual U.S. gallons. Specifying diesel or gasoline gallon equivalents is useful for comparing miles per gallon metrics when a fleet contains multiple fuel types.

Next you can specify whether you want to compare one or more individual fleets (select "Fleet-Level", or if the comparison should aggregate all fleets ("Company-Level"). Once specified, select the "RUN REPORT" button to view the line-item data entry comparisons. An example report is presented in **Figure 54**.

SmartWay®				
Comparison Report	Reporting Years: 2011 & 2010 Partner: ABC Trucking Fleet/Division-Level Comparison			December 21, 2011
Tool: Truck				
Display Option:				
	Change %	Change Amount	2011	2010
Fleet/Division Name(s)			ABC Trucking: North America	ABC Trucking: North America
Primary Contact(s)			Cookie Monster	Cookie Monster
Contact Phone(s)			(555) 555-5555	(555) 555-5555
SCAC(s)			COOK	СООК
MCN(s)			#555555	#555555
Fleet Type(s)			For-Hire	For-Hire
Operation / Body Type			Drayage / Mixed	Drayage / Mixed
Operation Type			TL(10%) / LTL(10%) / Drayage(80%)	TL(10%) / LTL(10%) / Drayage(80%)
Body Type			DryVan(35%) / Reefer(15%) / Chassis(50%)	DryVan(35%) / Reefer(15%) / Chassis(50%)
Commodities		Х	Cereal Grains; Milled Grain and Bakery Products; Other Prepared Foodstuffs; Refrigerated Food and Frozen Food; Mixed Freight	Cereal Grains; Milled Grain and Bakery Products; Other Prepared Foodstuffs; Refrigerated Food and Frozen Food
Average Cube Out	-7.0%	-6%	80%	86%
Miles Per Gallon (DGE)*	4.8%	0.27	5.98	5.71
Miles Per Truck	-14.2%	-14,351	86,933	101,285
Average Payload (tons)	-4.9%	-0.9		
Average Volume (cu ft)	-4.9%	-119	-1	
Average Capacity Utilization	-1.5%	-1%	88%	
Percent Highway Driving	4.49	40.0	74%	
Percent Urban Driving (0-25) Percent Urban Driving (25-50)	-4.1%	-1%	12%	
Percent Orban Driving (20-50)	22.3%	1%	4%	
Average Idle Hours Per Truck	-0.4%	-5		
Total Trucks	4.2%	3		
Class 2b	0.0%	0		
Class 3	100.0%	5		
Class 4	0.0%	0		5
Class 5	50.0%	2	6	
Class 6		-		
Class 7		-	-	
Class 8a		-		
Class 8b	-7.0%	-4	53	
Total Miles Driven	-10.6%	-772,500	· · ·	.,
Revenue Miles Driven Empty Miles Driven	-13.4%	-854,500 92,000		
Empty Milles Driven Total Gallons of Fuel (DGE)*	8.9% -14.7%	82,000 -187,869		
Diesel (DGE)*	-15.3%	-186,668		
Biodiesel (DGE)*	10.071	-100,000	-	1,220,000
Gasoline (DGE)*	30.1%	2,504	10,830	8,327
Ethanol (DGE)*	30.1%	140		
Other (DGE)*	-7.8%	-3,844		
Tons of CO <sub>2</sub>	-14.7%	-2,097		
CO <sub>2</sub> g/mile	-4.6%	-82	-	1,769
CO₂ g/ton-mile	<del>                                     </del>		99	-
	0.3%	2	730	
CO <sub>2</sub> g/1000 cuft-mile CO <sub>2</sub> g/utilized 1000 cuft-mile	2.3%	19		
ے arutilizea 1000 curt-milé 💎	2.5%	19	1 830	1 81

Figure 54 Example Year-to-Year Comparison Report

The example above indicates a change in commodities has occurred since 2010, with no other changes in basic contact and fleet characteristic information. Comparisons are also shown for a number of activity parameters including:

- average payload
- average volume
- average capacity utilization
- percent driving by road type and speed bin
- average idle hours per truck
- number of trucks by class
- total, revenue, and empty miles driven
- total gallons of fuel used (in this case in diesel gallon equivalents (DGE))

A variety of calculated annual performance metrics are also shown including:

- miles per gallon (here in diesel gallon equivalents)
- miles per truck
- tons of CO<sub>2</sub>
- grams CO<sub>2</sub> per mile
- grams CO<sub>2</sub> per ton-mile
- grams CO<sub>2</sub> per 1,000 cubic foot-miles
- grams CO<sub>2</sub> per utilized 1,000 cubic foot-miles

Percentage changes are also indicated for each of these items, relative to the earlier year baseline values.

#### **Viewing Other Data Reports**

Once you are ready to continue, select the following screen:

Go To Reports Menu

which will take you to

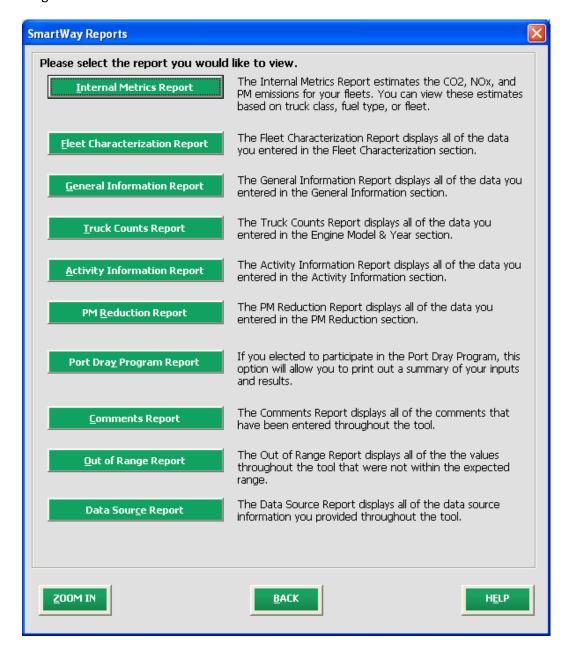


Figure 49 View Reports Menu

Selecting any of the green buttons on this screen will display the indicated data. Several reports summarize the data you entered on specific data input screens, such as the **Truck Counts Report** (corresponding to the **Model Year & Class** screen) and the **Activity Information Report** (corresponding to

the **Activity Information** screen). The **Out of Range Report** may be particularly useful in identifying and addressing those inputs flagged as potentially erroneous during fleet/division validation.

NOTE: The Comments Report allows you to review any notes and comments made during the compilation of the different data inputs throughout the tool. These comments can provide a useful reference for documenting data sources and assumptions, as well as for preparation of subsequent year submittals. In addition, you can use this report to view questions and comments from your Partner Account Manager after they receive and return your tool.

Select the Internal Metrics Report button to review the performance of your fleets/divisions in terms of grams per mile and grams per ton-mile, by pollutant type. After selecting this button you will be asked to specify the level of detail/aggregation you wish to display as shown in **Figure 50**.

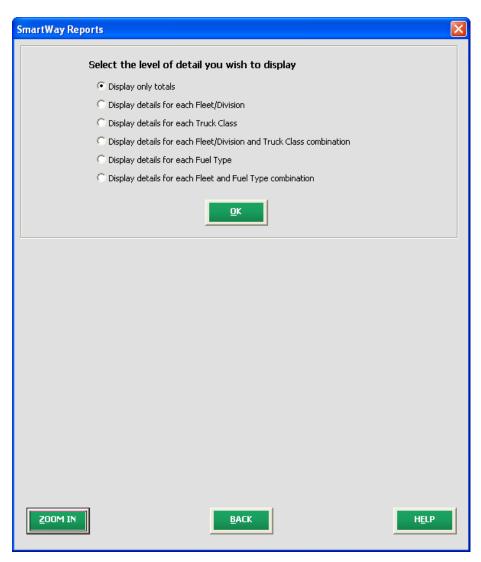
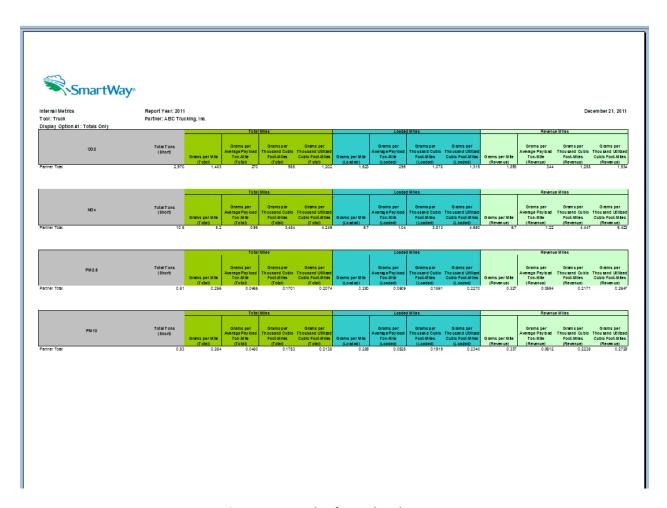


Figure 50 Internal Metrics Report Selection Menu

Selecting any of the summary report types will take you to a screen allowing you to preview and print your reports. **Figure 51** shows one of many sample reports that the tool can generate for you, in this case summarizing emission reductions in tons and assorted performance metrics at the Partner Total level (including all fleets/divisions). These reports will prove useful for your company's evaluation and improvement efforts.



**Figure 51 Example of Completed Report** 

# **Submitting Data to SmartWay**

Congratulations! You are now ready to send your data to EPA.

Select the Generate File to Send to EPA\* button, which will create a file with the following naming convention:

PartnerName\_Year\_Truck\_V0.xls

For example, ABCompany\_ 2011\_Truck\_V0.xls

where **PartnerName** is your company's name as entered for Step 1 on the **Home** screen, and **Year** indicates the year for which you are submitting your data.

The system will display a message indicating that an Excel file will be created with your company's name as part of the file name. The file will be saved to the same folder where the tool itself is currently saved. You will need to locate the file and attach it in an e-mail to your Partner Account Manager (PAM).

NOTE: DO NOT ZIP the File. Send it to EPA as a normal file attached in an e-mail. EPA security will not allow zipped files through the EPA firewall.

The system will first display a message asking you to confirm your decision to save a copy of your tool on your hard drive (Figure **52**).



**Figure 52 Data Saving Confirmation** 

Upon selecting **OK**, the file will be saved, and the following instructions will appear. Follow these

instructions for submitting your truck tool to SmartWay. Upon selecting appear allowing you to close the Truck Carrier FLEET tool or return to the **Home** screen.



**Figure 53 Data Saving Confirmation** 

If you have any comments about the tool and/or User Guide, please submit these with your tool in a separate document.

# **Troubleshooting the Tool**

Although the SmartWay tools have been tested extensively, you may encounter errors. Intermittent errors have been encountered when opening the tool directly from the SmartWay website, or from an email, rather than from a drive, or when multiple Excel files or other applications are open simultaneously. If you encounter an error during use of the tool, please try restarting the tool directly from a disk drive, with all other Excel files and applications closed. In addition, make sure that your computer is using a system and application version validated for use with the SmartWay tools (Windows XP or later operating system, and Excel Office 2003 or 2007).

If you continue to encounter problems, please make a screen capture of the error message, and save the tool at that point. (You can make a screen capture by pressing *Alt-Print Screen*, and then pasting the image into a document such as MS Word.) Then send the screenshot, along with the saved tool to your Partner Account Manager for further assistance.

## Appendix A – Port Dray Program Data Requirements and Calculations

EPA's SmartWay Drayage Program recognizes Partners for reducing diesel emissions from port drayage trucks. Drayage is the short distance transport of containerized freight goods between marine (or rail) terminals and local distribution centers. The following provides an overview of the program and the associated data input requirements for the Truck Tool.

The Partnership Elements: EPA has developed an emissions calculator to help port truck carriers measure their particulate matter (PM), oxides of nitrogen (NOx), and carbon dioxide (CO2); identify strategies to reduce harmful diesel emissions and track emissions performance on an annual basis. To participate, drayage carrier partners sign a partnership agreement and commit to track emissions, replace older dirtier trucks with cleaner, newer ones, and achieve at least a 50% reduction in PM and 25% reduction in NOx, below the industry average, within three years. Shippers who are already members of SmartWay commit to ship 75% of their port cargo with SmartWay dray carriers within three years. New shipper partners must sign the SmartWay shipper partnership agreement and the drayage addendum.

**Business-to-Business Advantage:** SmartWay drayage carriers are preferred by SmartWay Transport shippers, and they want to ship their goods with participating SmartWay drayage partners. Shipper partners are already giving business priority to SmartWay drayage carriers.

**Technical Support:** EPA will assist SmartWay drayage partners in developing and meeting goals.

**Recognition of Existing Environmental Improvements:** A dray carrier fleet's existing age and emissions strategies, coupled with continued improvements, determine status in the Partnership. Full credit is provided for fleet improvements made thus far.

Promotional Opportunities and Public Recognition: The SmartWay Transport Partner brand of excellence is awarded to qualifying Partners as a visible cue to business customers and the public, to use in their advertising and other promotional media. The SmartWay brand sends a message that participating dray carriers are champions of environmental stewardship. The SmartWay brand also helps customers and consumers to make educated choices about SmartWay recognized products and services. Visible exposure through national and regional events, advertisements, articles, and special recognition are just a few ways that EPA commits to recognize dray carrier partner achievements.

**Truck Tool Data Input Requirements:** Those fleets/divisions with 75% or more of their operation in the Dray Operation Category are eligible to participate in SmartWay's Port Drayage Program. These fleets/divisions have the **Step 6 – Port Dray Program** option displayed on the **General Information** screen (see **Figure A-1**).

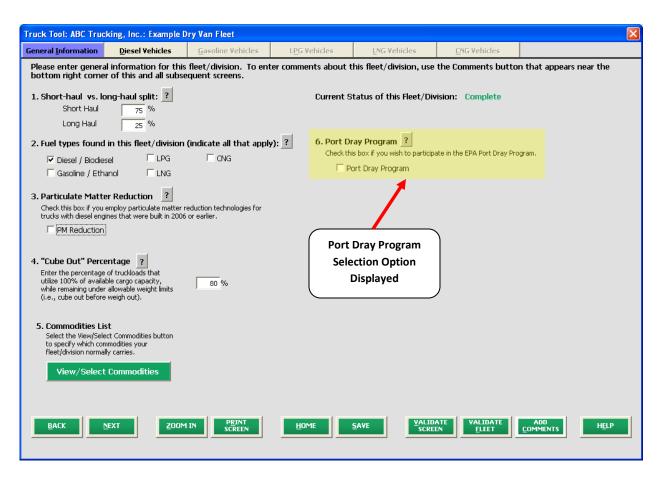


Figure A-1 General Information Screen with Port Dray Program Option

Checking the Port Dray Program box will activate associated information and data input cells (see **Figure A-2**).

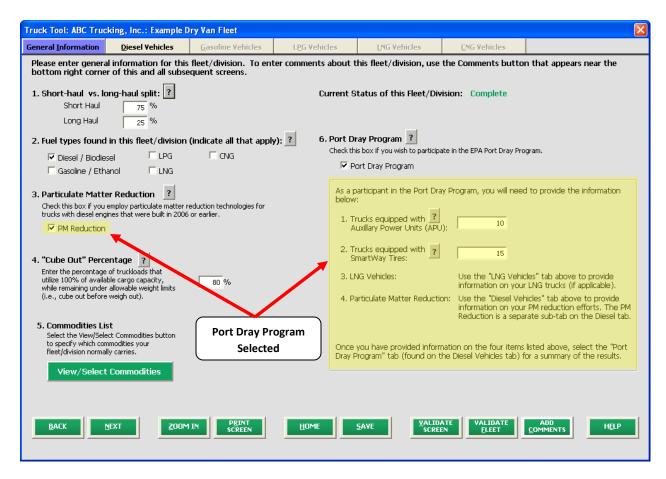


Figure A-2 General Information Screen with Port Dray Program Information and Inputs Activated

In order to participate in the program, first enter the number of auxiliary power units (APUs) installed on your fleet's/division's trucks. An APU is a small diesel fuel-powered generator mounted outside the cab that provides the operator heat, air-conditioning, and/or electrical power to run in-cab appliances. Next input the number of trucks equipped with SmartWay tires. Options include both dual tires and single wide tires (single wide tires replace the double tire on each end of a drive or trailer axle, in effect turning an 18-wheeler into a 10-wheeler). Low rolling resistance tires can be used with lower-weight aluminum wheels to further improve fuel savings. Please enter zero in each of these cells if these strategies are not used on your vehicles. Otherwise, make sure that the number of trucks specified does not exceed the total number entered on the Model Year & Class screen.

If your fleet includes LNG vehicles, make sure to characterize those vehicles on the **LNG** screen. In addition, note that the **PM Reduction** box on the **General Information** screen is automatically checked upon selection of the **Port Dray Program** checkbox (see **Figure A-2**). Make sure to characterize your Dray Fleet's PM reduction strategies on this screen.

After entering the required data regarding your dray fleet/division, the Truck Tool will calculate your fleet's **Environmental Performance Score** consistent with the Port Dray Program evaluation guidance. Please see <a href="http://www.epa.gov/smartway/partnership/drayage.htm">http://www.epa.gov/smartway/partnership/drayage.htm</a> for additional details regarding the program. Information regarding how the **Environmental Performance Score** is calculated is presented in

#### the Truck Tool Technical Documentation (see

http://www.epa.gov/smartway/documents/partnership/trucks/partnership/techdoc.pdf).

You can view a summary of your Dray Program inputs and the associated **Environmental Performance**Score on the Port Dray Program screen, adjacent to the PM Reduction tab (see Figure A-3), or by reviewing the Port Dray Program Report on the Reports Menu screen.

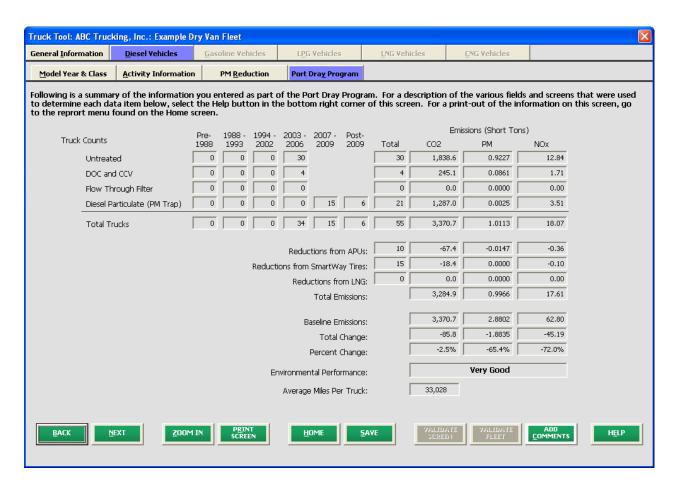


Figure A-3 Port Dray Program Information Screen

The information summarized on the above screen is derived from the following screens within the Truck Tool. Fields not specifically mentioned below are calculated fields:

- 1. Average Miles per Truck: Represents "Total Miles Driven" on the **Activity Information** screen divided "Total Trucks" on the **Model Year & Class** screen for diesel vehicles.
- 2. Average Gallons of Fuel per Truck: Represents "Gallons of Diesel Used" on the **Activity Information** screen divided "Total Trucks" on the **Model Year & Class** screen for diesel vehicles.
- 3. DOC and CCV: Number of trucks retrofitted is obtained from the PM Reduction screen.

- 4. Flow Thru Filter: Number of trucks retrofitted is obtained from the PM Reduction screen.
- 5. Diesel Particulate (PM Trap): Number of trucks retrofitted is obtained from the PM Reduction screen.
- 6. Untreated: Represents vehicle count totals from the **Model Year & Class** screen for diesel vehicles minus truck count totals from the **PM Reduction** screen (i.e., the number of trucks without retrofits).
- 7. Reductions from APUs: Number of trucks equipped from the **Port Dray Program** field on the **General Information** screen.
- 8. Reductions from SmartWay Tires: Number of trucks equipped from the **Port Dray Program** field on the **General Information** screen.
- 9. Reductions from LNG: Represents "Total Trucks" on the Model Year & Class screen for LNG vehicles.