SmartWay®
Transport Partnership
U.S. Environmental Protection Agency

Truck Carrier Partner 2.0.15 Tool: Data Entry and Troubleshooting Guide 2015 Data Year - United States Version

EPA United States Environmental Protection Agency

SmartWay®
Transport Partnership
U.S. Environmental Protection Agency

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

United States Environmental Protection Agency

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Introduction

This guide is the second of two guides available to help your company participate fully in the SmartWay Transport Partnership as a Truck Carrier Partner.

The first guide, the Truck Carrier Tool "Quick Start Guide," provides a basic walk-through of the process of identifying, gathering, preparing, and submitting your data using the SmartWay Truck Carrier Tool. (From this point on, this guide will refer to the SmartWay Truck Carrier Tool as the "Truck Carrier Tool" or simply, the "Tool," for brevity.)

The Quick Start Guide may be all you need to successfully complete the Truck Carrier Tool.

This guide, the Truck Carrier Tool "Data Entry and Troubleshooting Guide," is intended to supplement the Quick Start Guide and provide more detailed information for completing your Tool submission.

The Table of Contents for this guide is designed so that you can find the relevant information on specific topics without reading the entire guide.

In this guide, you will learn how to enter the fleet composition and activity data you collected (as mentioned Quick Start Guide and the online data entry forms it references) into the Truck Carrier Tool. This guide covers:

- Downloading and setting up the Tool to run properly
- Basic organization of the Truck Carrier Tool
- Entering your data
- Viewing fleet performance summary data
- Submitting data to SmartWay
- Troubleshooting the Tool
- Appendices

WARNING!

Completing this Tool requires a considerable amount of information about your fleet(s). There are many sections and screens to complete for each fleet. 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 the Quick Start Guide to understand key information about joining the partnership and preparing the required data* ***BEFORE*** *attempting to complete the Tool.*

PART 1: DOWNLOADING AND SETTING UP THE TOOL

Downloading and Setting up the Tool

Software and Hardware Requirements

The Truck Carrier Tool was designed in Microsoft Excel. Microsoft Excel is an electronic spreadsheet program used for storing and manipulating data. Microsoft Excel Forms were used to enable the functional capabilities of the Tool.

Completing the Truck Carrier Tool requires the following software and hardware:

- A 2003 or later version of Microsoft Excel
- Excel security level set at Medium or lower
- A PC running Windows XP or newer operating system, or a Mac that is running the Windows XP operating system The tool does not currently work using the Mac operating system
- At least 15 megabytes of available disk space (more disk space may be required based on the number of companies you define in your Tool).
- Adequate memory (RAM) to run Microsoft Office
- A monitor resolution of at least 1,024 x 768

Check with the user guides for your computer, online support, or your company's IT department to make sure your system is set up to use the Truck Carrier Tool.

We encourage you to make sure that you virus software is up to date, and scan your PC before putting data in the Truck Carrier Tool.

Downloading the SmartWay Truck Carrier Tool

To download the Truck Carrier Tool, visit: http://www.epa.gov/smartway/forpartners/index.htm.

Save the Tool in a folder on your hard drive; this folder will house copies of your data and future updates.

How to Set Security Levels for the SmartWay Tools

The following instructions should appear on your screen *if* you need to change your security settings before running the Tool. The instructions differ depending upon what version of Excel you use (Excel 2003, 2007, 2010 or 2013).

SECURITY SETTINGS FOR EXCEL 2003 USERS

To use the Truck Carrier Tool in Microsoft Excel 2003, you will need to have your security levels set to "Medium."

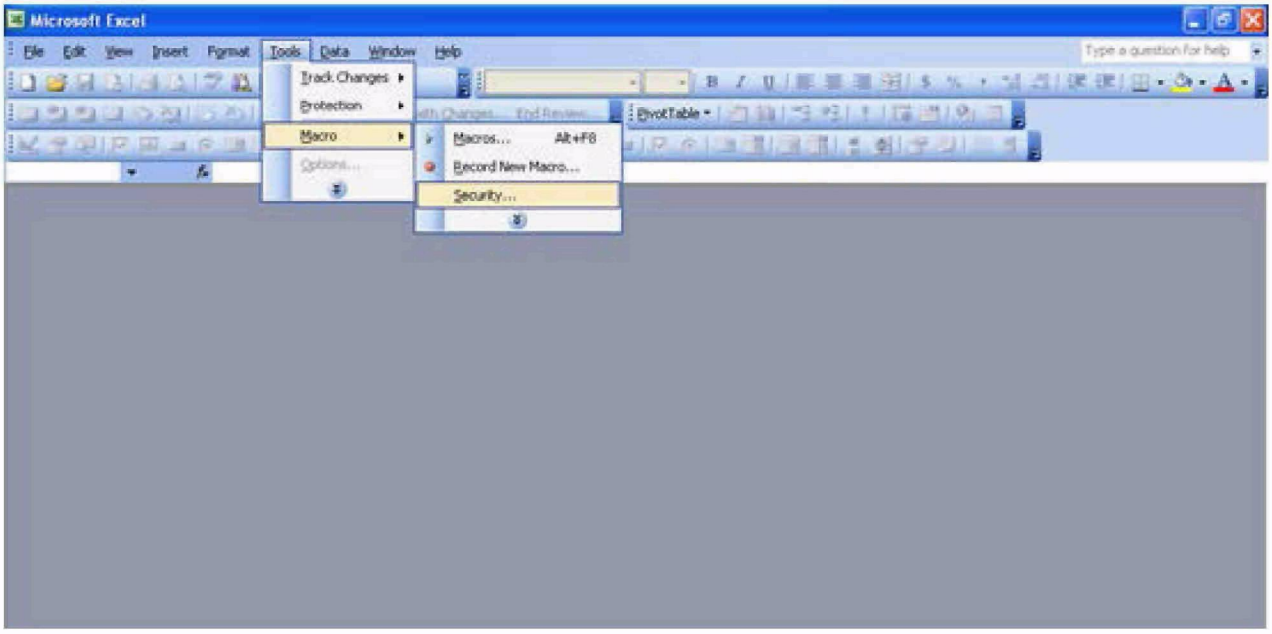


Figure 1: Macro Setting Tabs in Excel 2003

Setting Security Levels to Medium in Excel 2003

1. When using Excel 2003, on the menu bar, go to *Tools* → *Macro* →*Security Level*.

2. When the "Security" window opens, select the "Medium" level, and select **OK**.

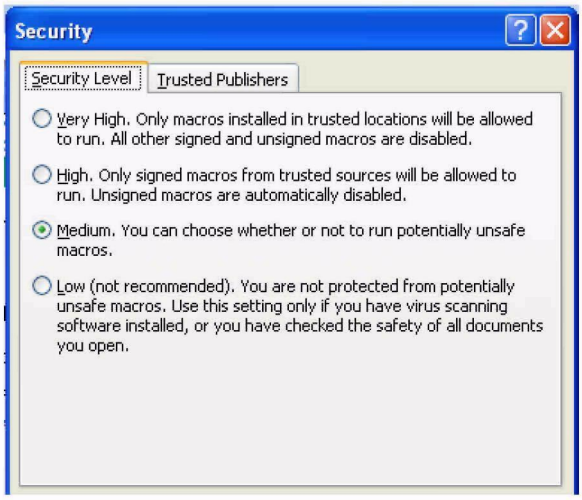
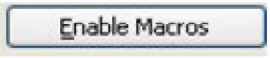


Figure 2: Security Level Setting Screen in Excel 2003

Running the Tool in Microsoft Excel 2003

1. Save the Tool to your computer in a folder on your hard drive.
2. Go to that folder and double-click on the file to open the Tool.
3. You will see a security-warning box appear (**Figure 3**). Select the 

button in the security-warning box.

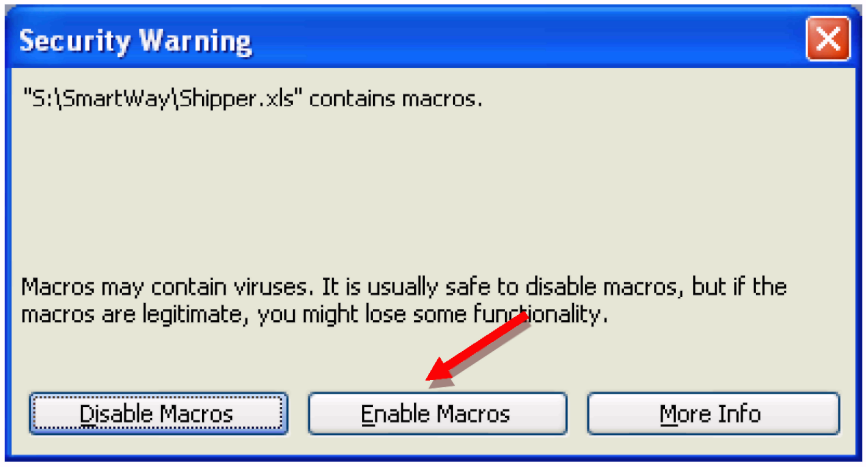


Figure 3: Screen showing "Enable Macros" button

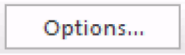
The **Welcome** Screen for the Truck Carrier Tool should then appear and you will be ready to begin working on your tool.

SECURITY SETTINGS FOR EXCEL 2007 USERS

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

Running the Tool in Microsoft Excel 2007

1) Save the Tool to your computer.

2) Open the file, and select the 

button that appears after the Security Warning just below the menu bar (**Figure 4**). Detailed instructions are also provided on the screen itself.

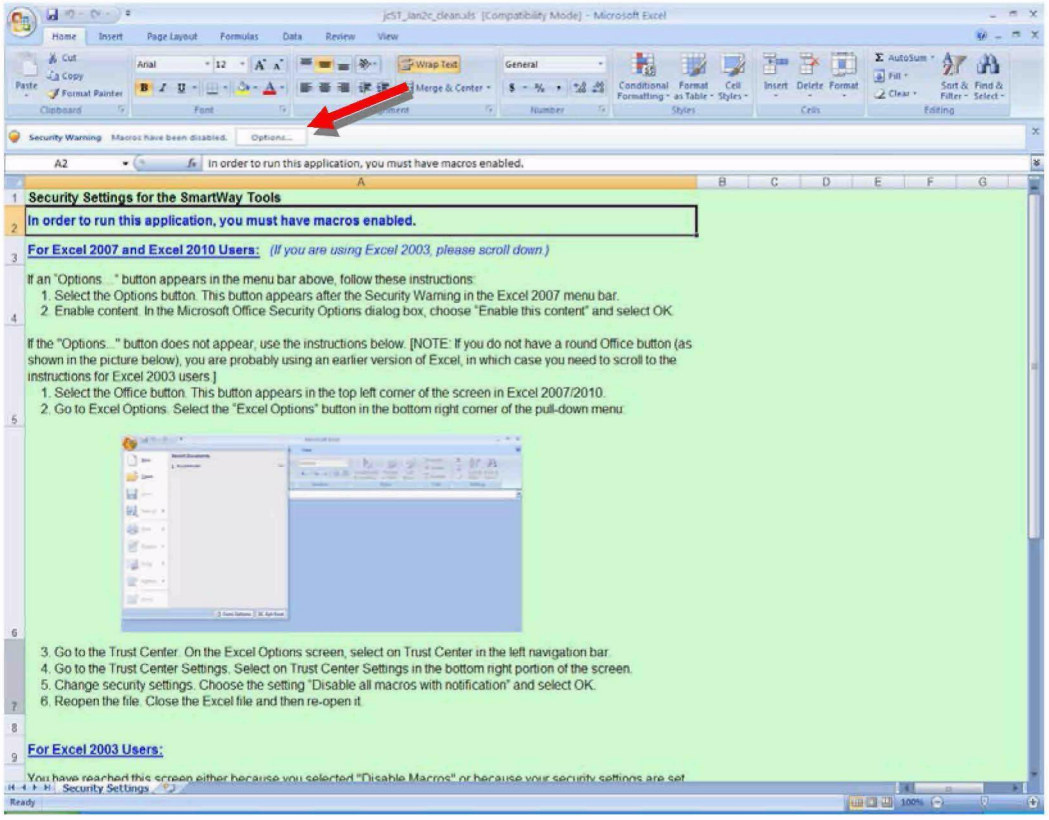


Figure 4: Security Warning Screen

3) In the **Microsoft Office Security Options** dialog box (**Figure 5**), choose "Enable this content" and select **OK**.

Figure 5: Security Options Dialogue Box

The **Welcome** Screen for the Truck Carrier Tool should then appear and you will be ready to begin working on your Tool.

Troubleshooting the Security Settings in Microsoft Excel 2007

If you reach this point and the Tool does NOT open, you may have your security set too high.

To adjust your security settings, select the button (in the top left corner of the screen) and then select the

button in the bottom right corner of the pull-down menu (**Figure 6A**).

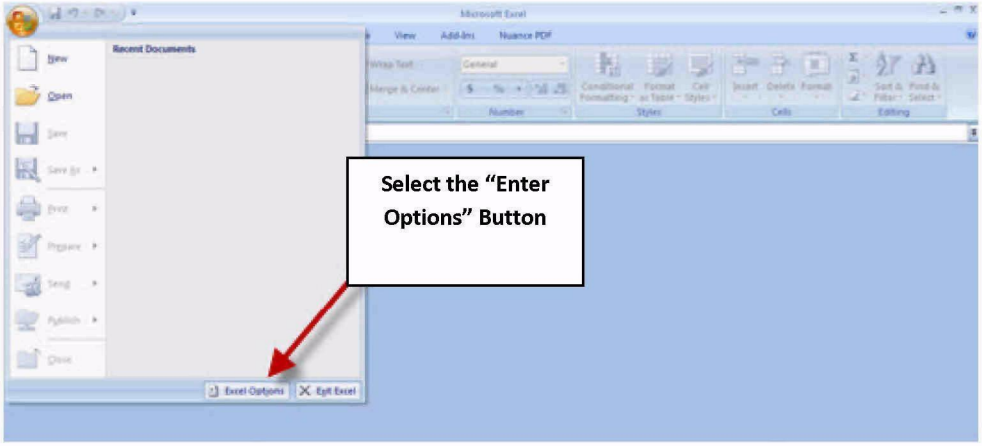


Figure 6A: Excel Options Drop-Down Menu

On the **Excel Options** screen, select **Trust Center** in the left navigation bar (**Figure 6B**):

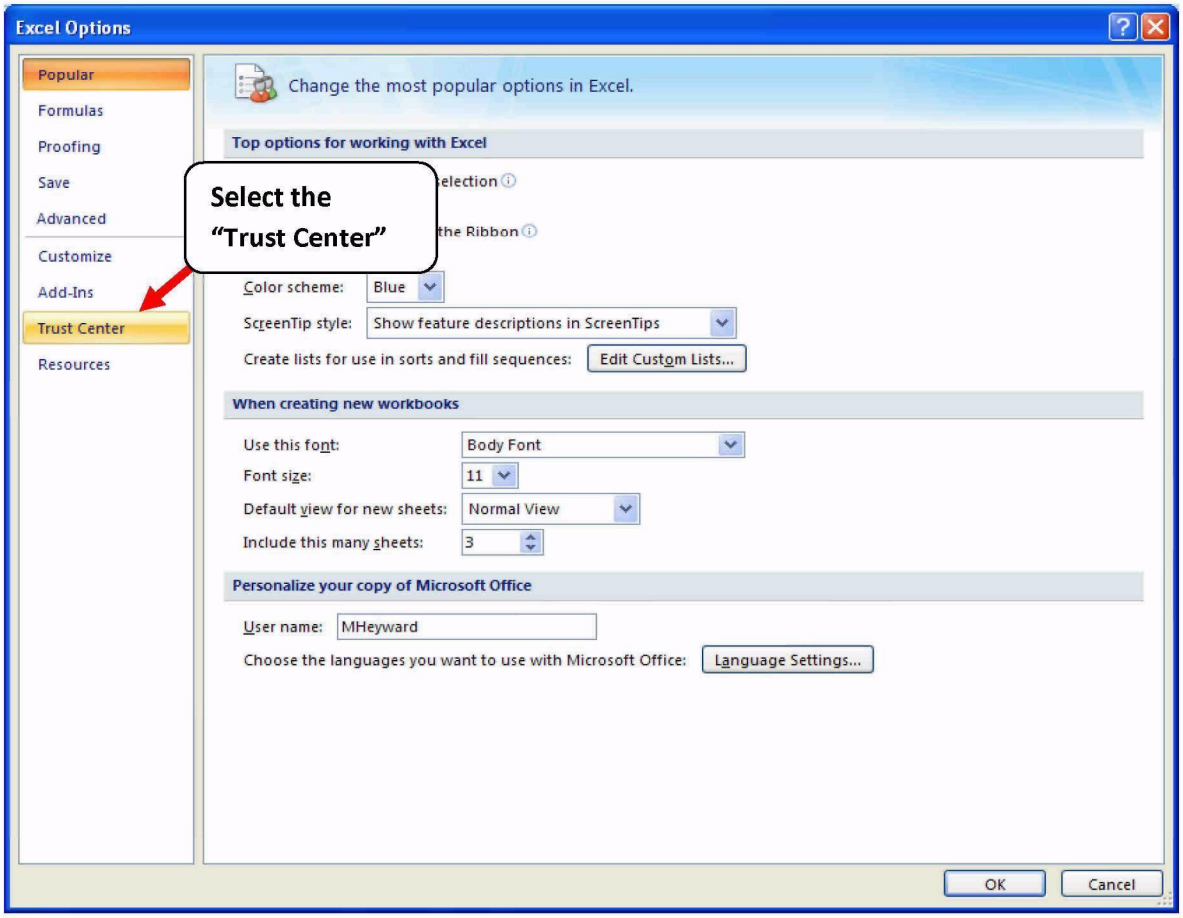


Figure 6B: Excel Options Drop-Down Menu

When the Trust Center options display opens, select **Trust Center Settings** in the bottom right portion of the screen (**Figure 7**):

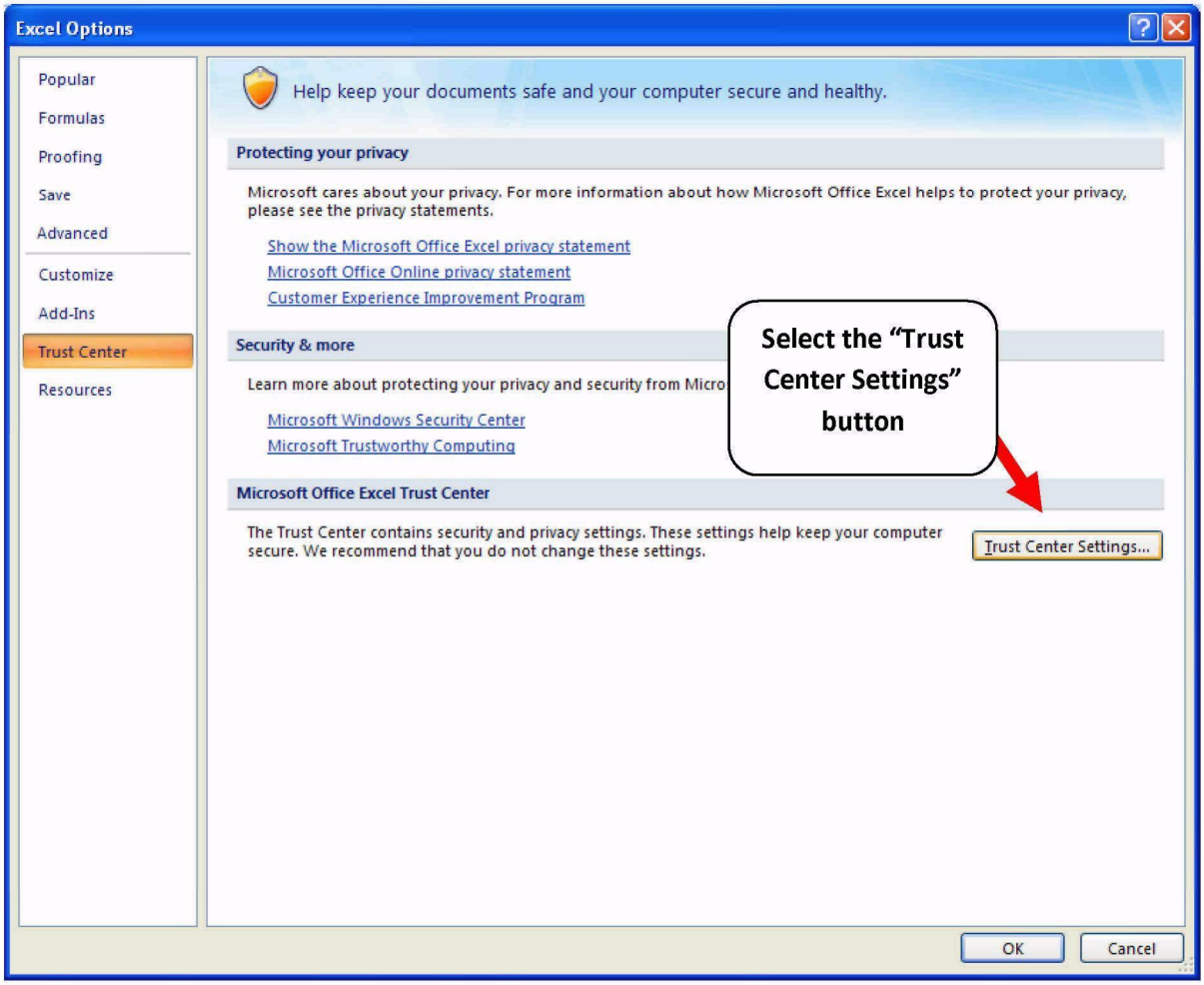


Figure 7: Trust Center Settings Screen

Choose the setting “Disable all macros with notification” (**Figure 8**) and select **OK**.

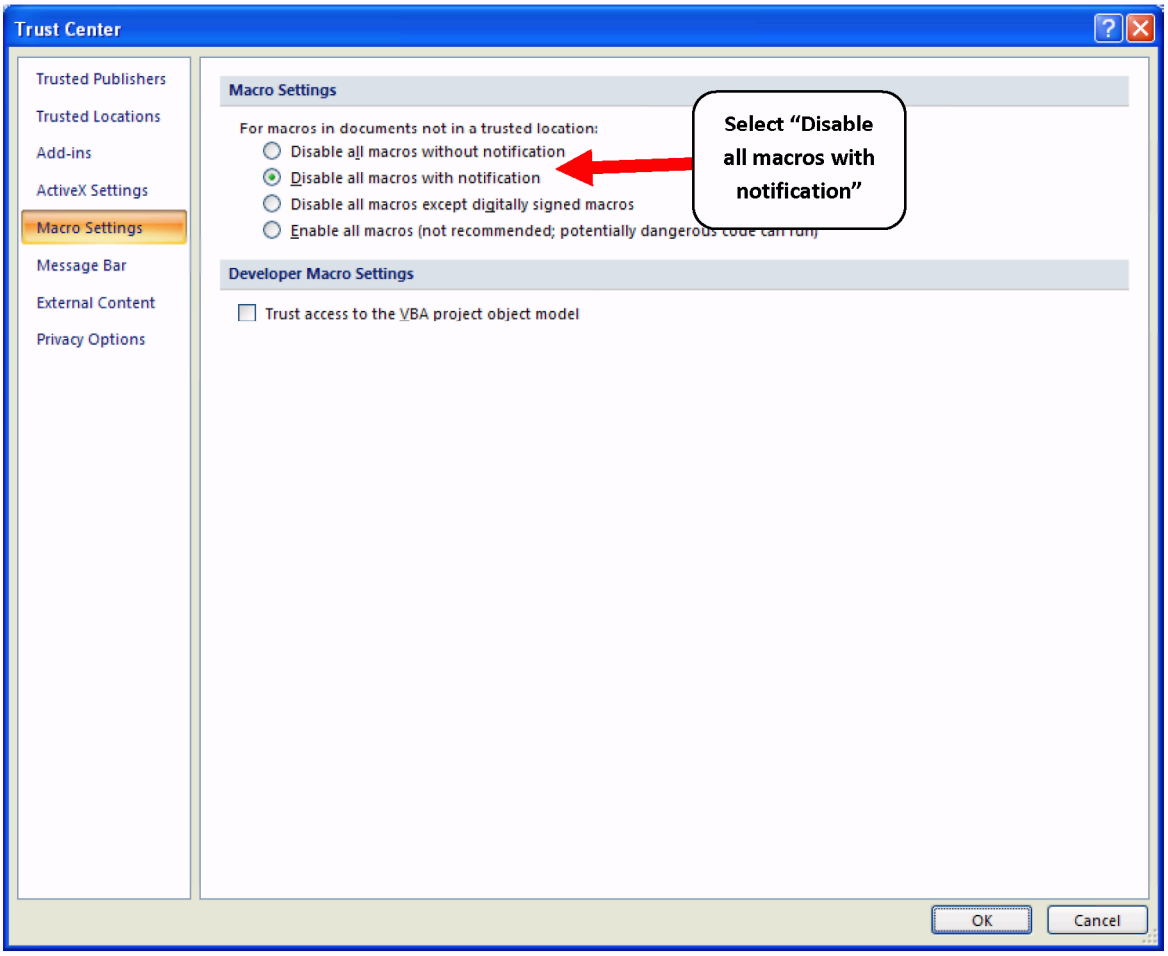


Figure 8: Macro Settings Screen

Then run the Tool.

If, at this point, the Tool does not open, review the “Software and Hardware Requirements” on page 7. If you after reviewing this section, you cannot determine how to correct the problem, contact your SmartWay Partner Account Manager.

SECURITY SETTINGS FOR EXCEL 2010 AND 2013 USERS

The default settings for Excel 2010 and 2013 should enable you to run the tool without any changes. To run the tool:

1) Save the Tool to your computer.

2) Open the file. Depending on your Office settings, you may receive an "Enable Editing" popup. If you do, simply select the Enable Editing button. This will allow you to enter data into the Tool. You may only receive this popup the very first time you open the Tool.

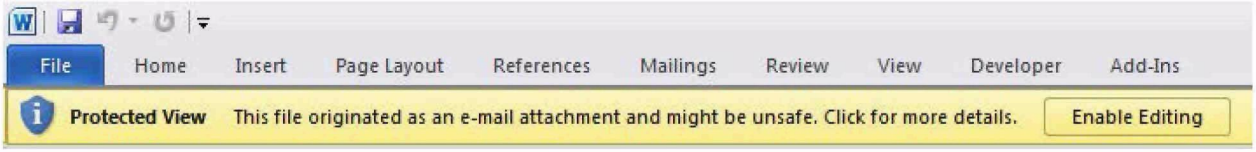


Figure 9: The Enable Editing Button

3) Depending on your Excel macro security settings, you may receive a Enable Content popup. If you do, simply select the Enable Content button. This will enable macros in the tool you just opened.

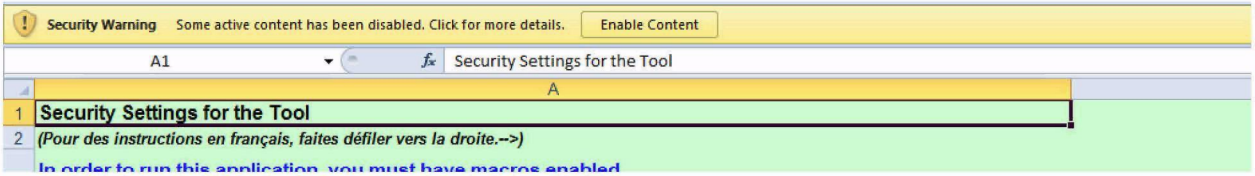


Figure 10: Security Warning Popup

If, at this point, the Tool does not open, review the "Software and Hardware Requirements" on page 7.

Otherwise, you may have your security set too high. To adjust your security settings, select the 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 11**):

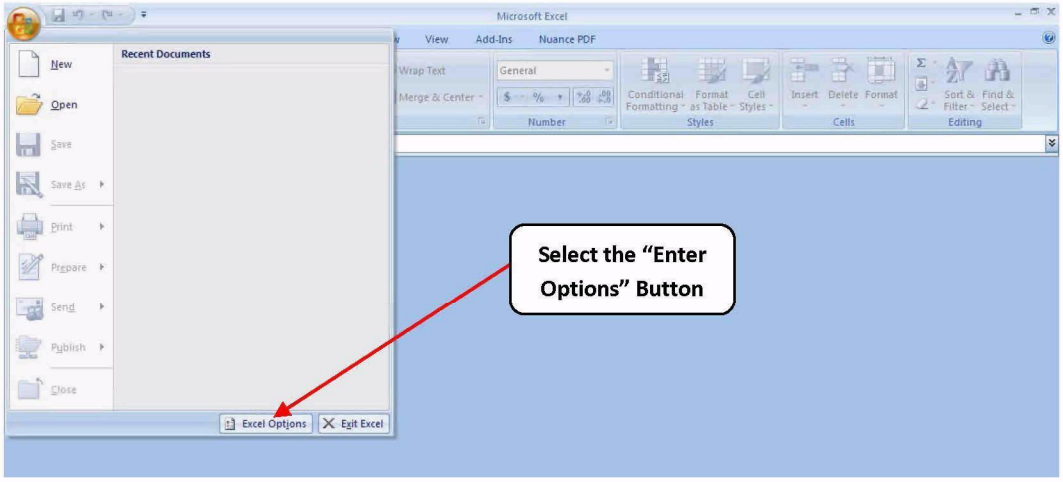


Figure 11: Excel 2010/2013 Options Drop-Down Menu

On the Excel Options screen, select **Trust Center** in the left navigation bar (**Figure 12**):

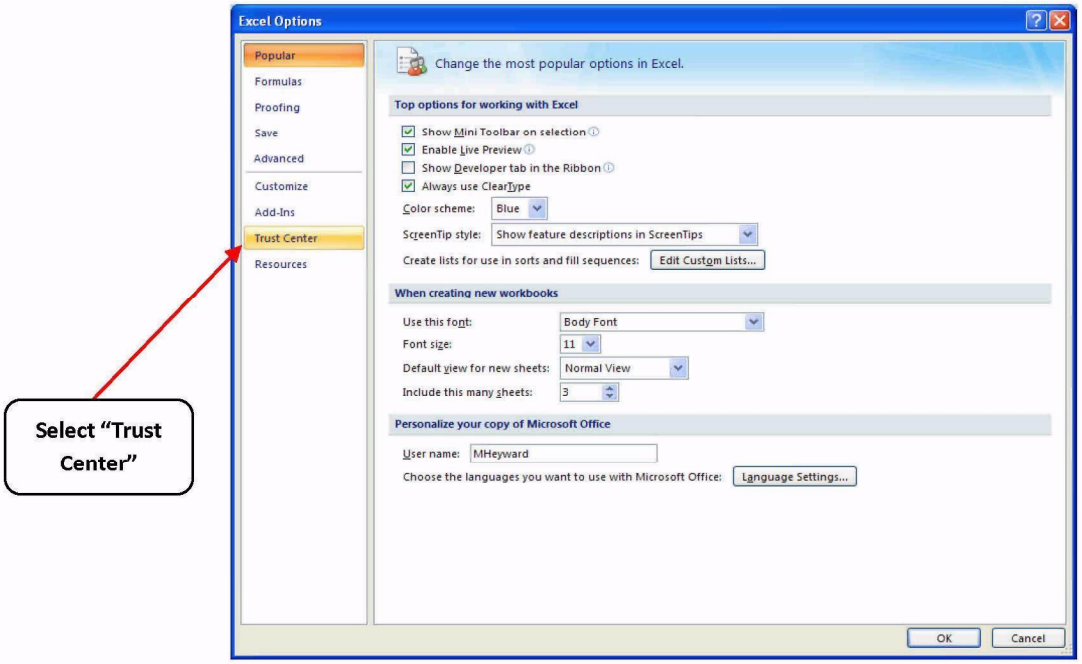


Figure 12: Excel 2010/2013 Options Drop-Down Menu

When the Trust Center options display opens, select **Trust Center Settings** in the bottom right portion of the screen (**Figure13**):

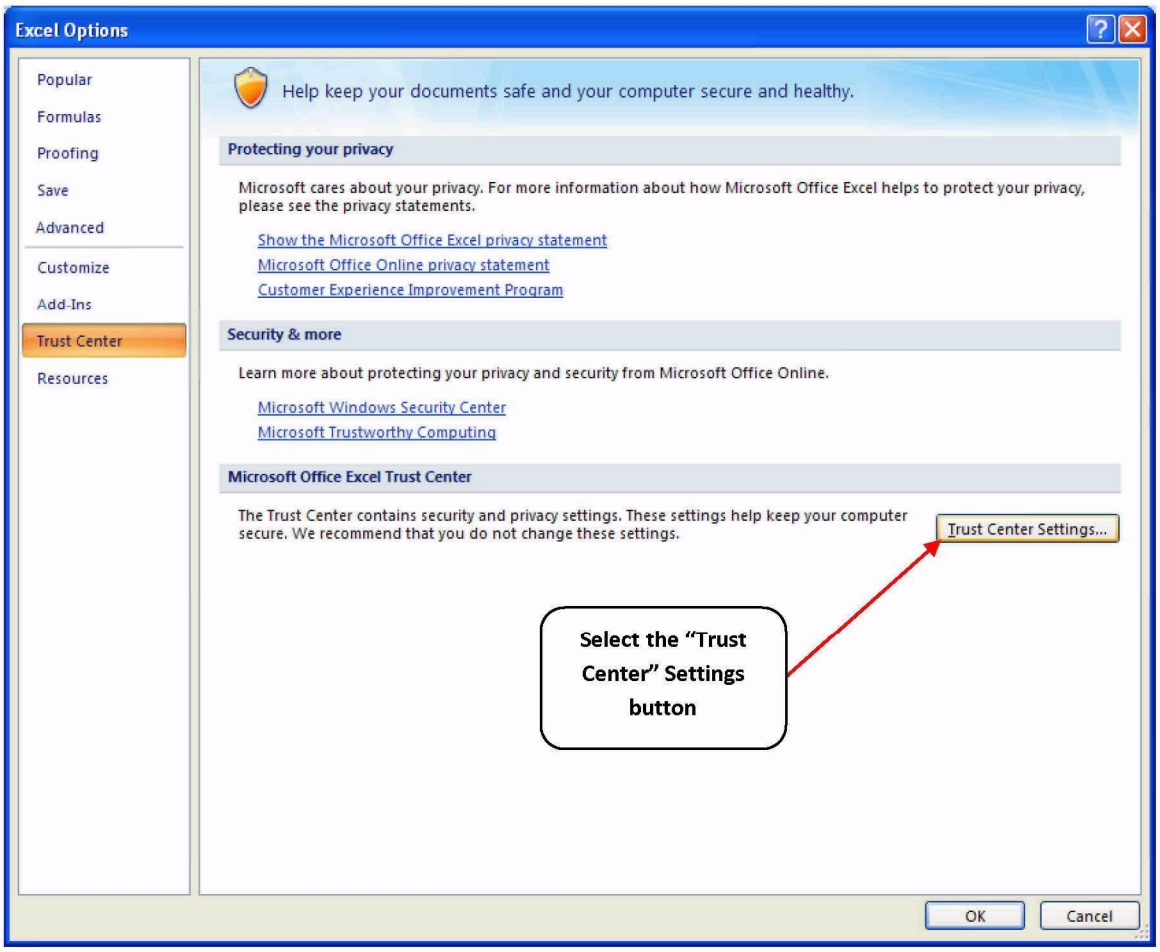


Figure 13: Trust Center Settings Screen

Choose the setting “Disable all macros with notification” (**Figure 14**) and select **OK**.

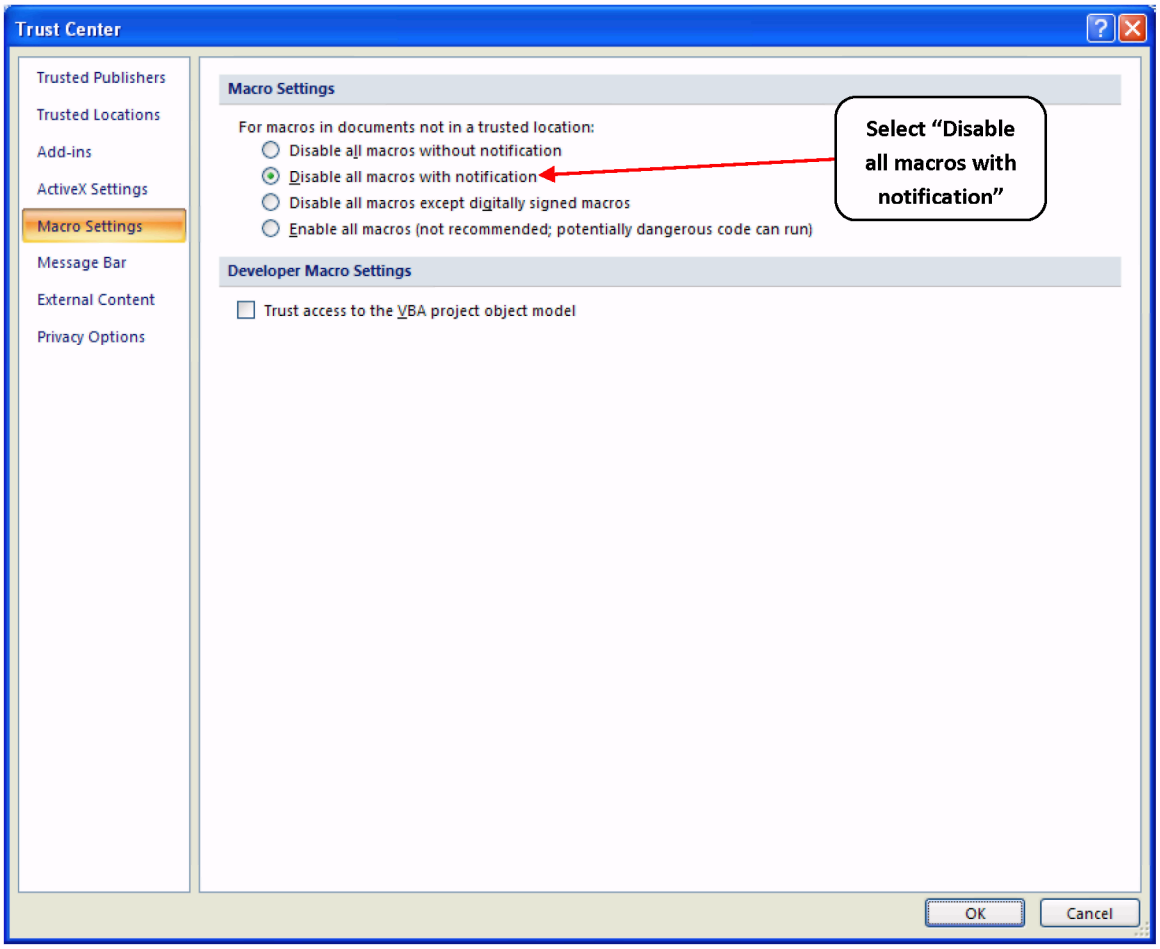


Figure 14. Macro Settings Screen

PART 2:
TOOL ORGANIZATION

Basic Organization of the SmartWay Truck Carrier Tool

The Truck Carrier Tool is the basis of the SmartWay Partnership for Truck Carriers. Completion and submission of a Truck Carrier Tool is the first step to becoming a SmartWay Truck Carrier Partner. Your Tool submission must be approved by EPA before you are officially a Partner.

The Truck Carrier Tool is organized around

- information screens
- forms or worksheets
- reports and summaries

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

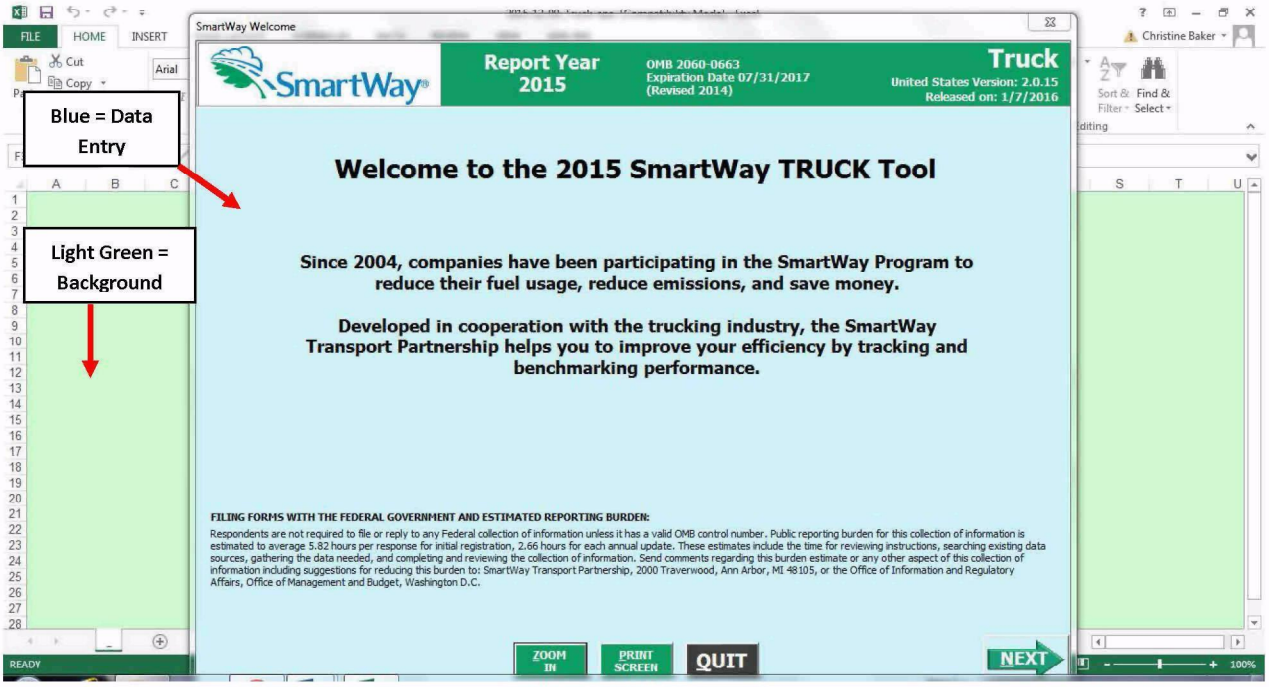


Figure 15: Welcome Screen for the Truck Carrier Tool in Microsoft Excel

The blue screen is where you enter data. The light green background is the Excel workbook; this area remains in the background is NOT used for data entry. For the purposes of your Tool submission, disregard the background workbook.

The name of each form appears at the top left-hand corner of the screen, in black text on the blue window bar, and the reporting year for the Tool is prominently displayed at the top of the screen.

Figure 16: Screenshot of Title of Screen/Form

Each screen contains text instructions or information about the program. Where applicable, the screen will also include buttons linking to the SmartWay website or other sections of the Tool (e.g., the various data entry screens or other information screens); these buttons will be shown in green and clearly labeled, as seen in **Figure 17**.

Figure 17: Screenshot of Button Link in the Tool

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

Figure 18: Screenshot of Selected Navigation Buttons in the Tool

When a 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. You may also find additional, detailed instructional material on how to successfully navigate and complete the different data entry screens within the Tool by selecting the

buttons at the bottom of selected screens.

Page numbers are found at the bottom right of all screens to facilitate navigation through the Tool and communication with your Partner Account Manager regarding any questions.

Reviewing the Introductory Screens

Upon opening the 2015 Truck Tool you will see a **Welcome** screen. Next you will find five Introduction screens. If you are not familiar with the Truck Tool, or if you wish to review the basic organization and functions of the Tool, these five screens can help you get oriented.

The features of these screens are described below.

SMARTWAY WELCOME SCREEN

The **SmartWay Welcome** screen is the first window that appears when the Tool is opened (**Figure 19**). This screen provides basic information about the SmartWay Partnership.

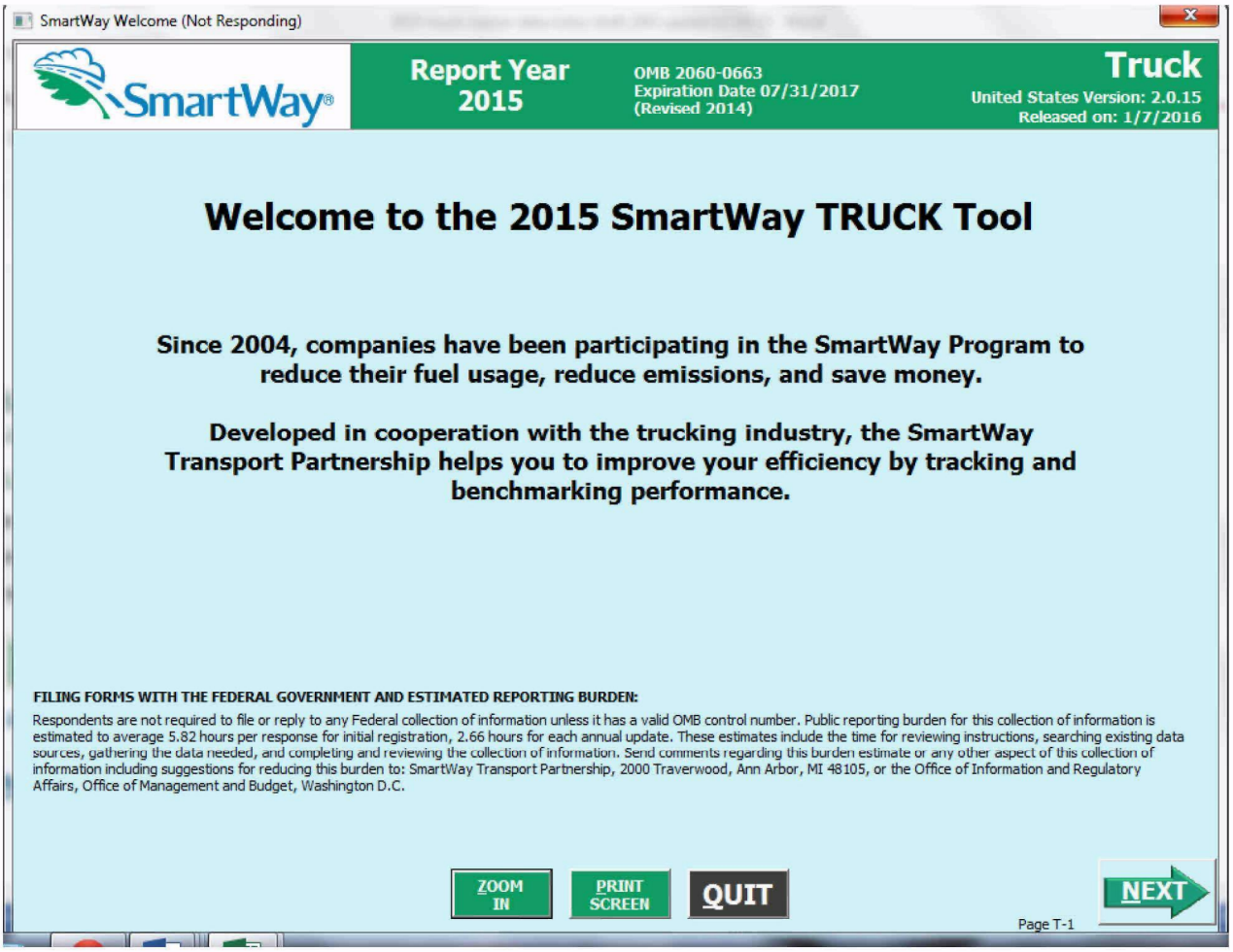


Figure 19: SmartWay Truck Tool Welcome Screen

ASSISTANCE FOR NEW USERS SCREEN

The **Assistance for New Users** screen appears first after the **Welcome** screen, and allows users to view a video presenting an overview of the Tool (see **Figure 20**).

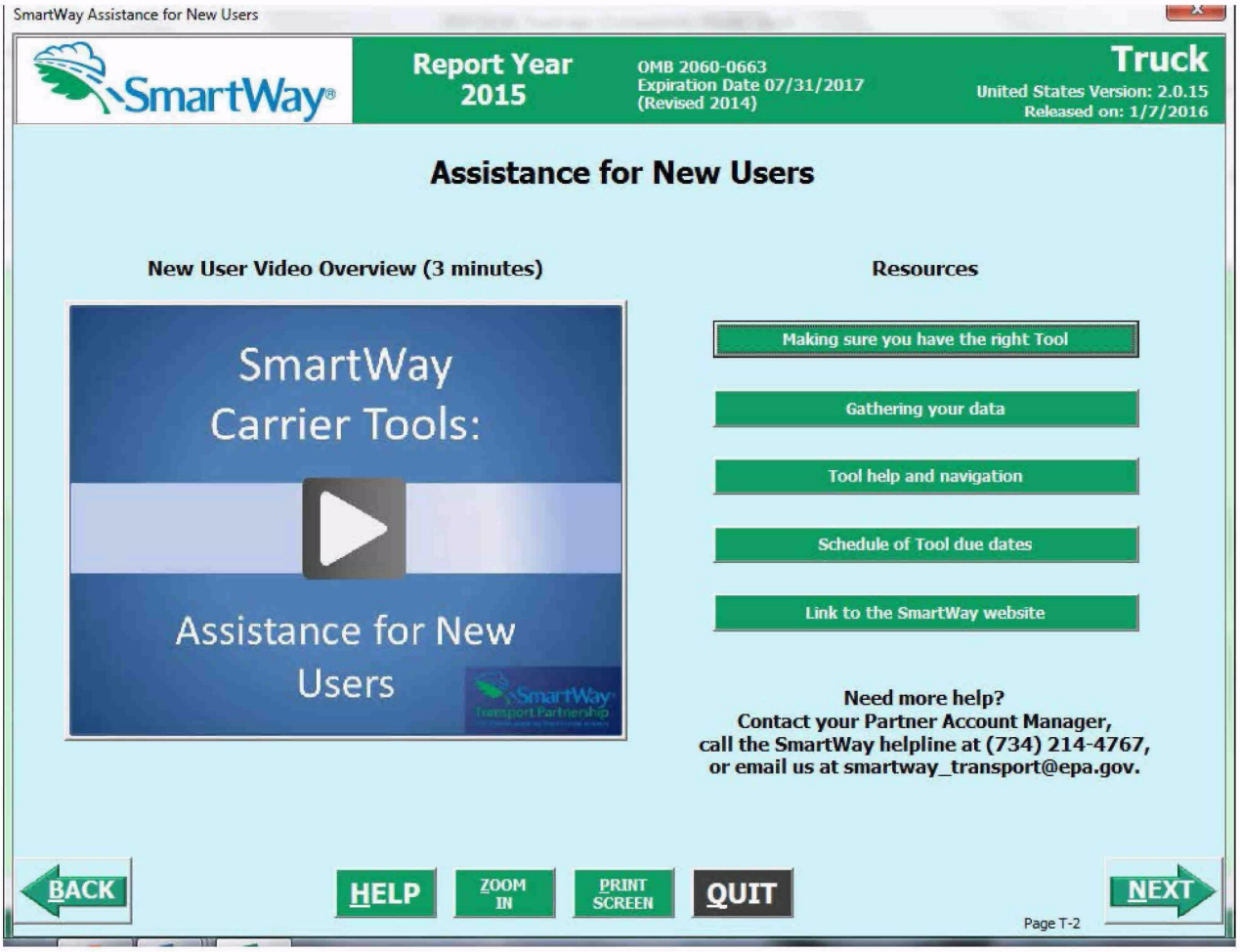


Figure 20: Assistance for New Users Screen

Additional screens may also be accessed from this screen, including:

- Making sure you have the right tool
- Gathering your data
- Tool help and navigation
- Schedule of tool due dates

Selecting these buttons on the **Assistance for New Users** screen will take you to a new screen containing the information of interest. These are general information screens and may be skipped if you are already familiar with the Tool.

MAKING SURE YOU HAVE THE RIGHT TOOL SCREEN

SmartWay offers several tools tailored for different business models and fleets. Most truck carriers will use the Truck Carrier Tool; however, it is advisable to review this screen in the Truck Carrier 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 your transport modes and the amount of business you contract to other companies.

Follow the flow chart in **Figure 21** to determine which tool is most appropriate for your fleet(s).

Select the

button for further details.

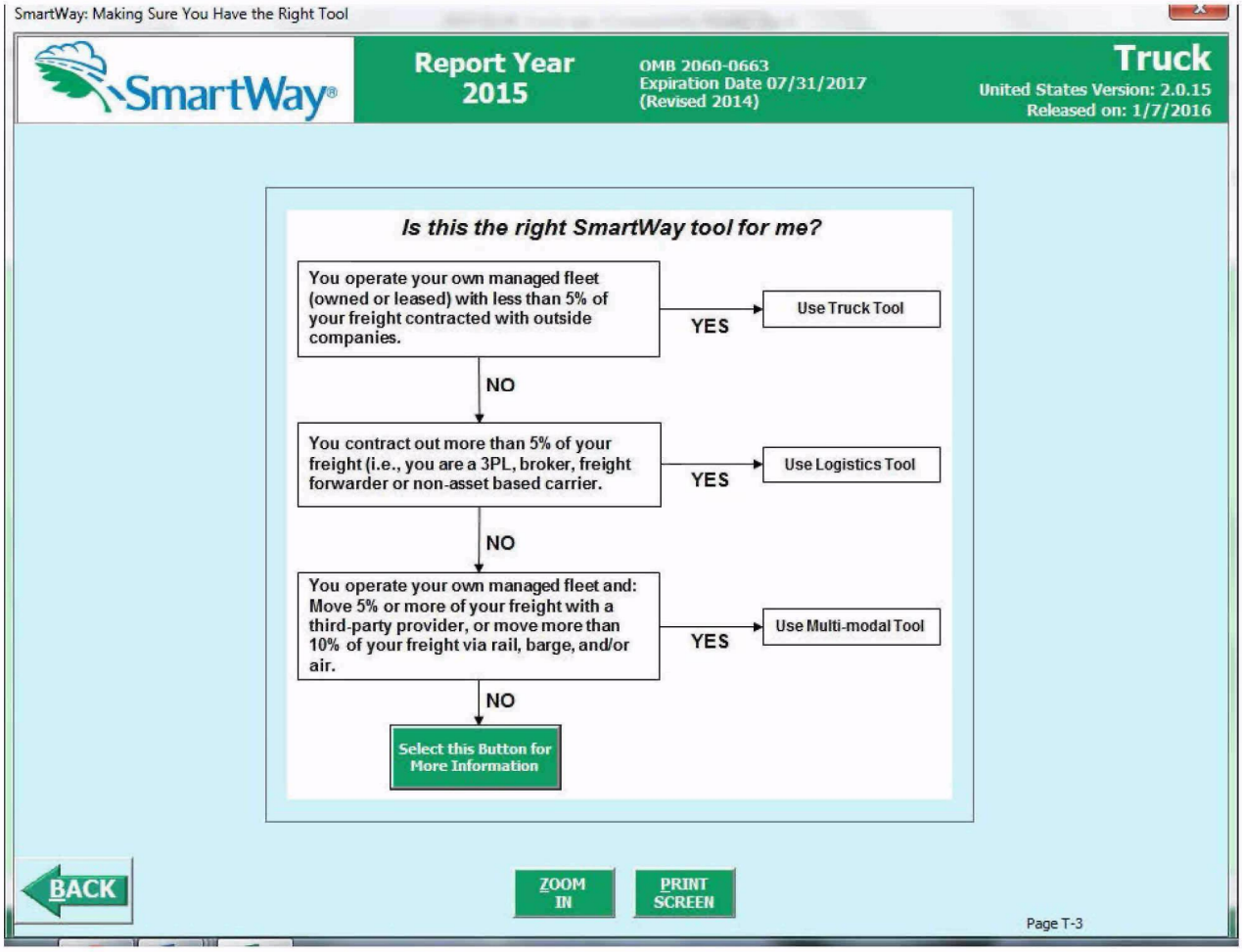


Figure 21: Determining Which Tool is Appropriate for Your Fleets

Select the

button to return to the **Assistance for New Users** screen.

GATHERING YOUR DATA SCREEN

This next screen summarizes the information needed to complete the Truck Carrier Tool.

You may select PRINT SCREEN to create a hard copy to reference as you complete the rest of the Tool.

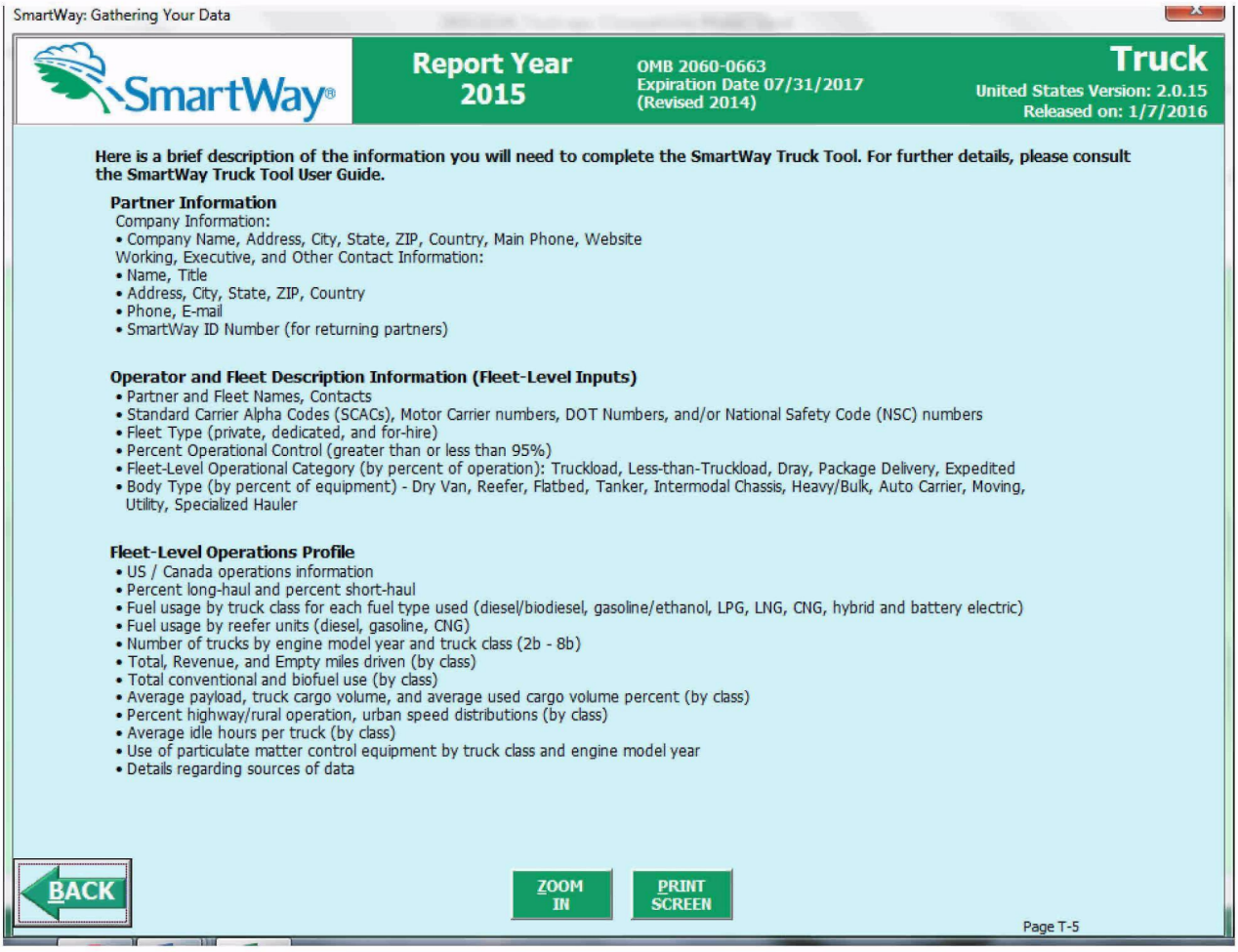


Figure 22: Summary of Required Information – Gathering Your Data Screen

While this screen serves as a reminder of your data input needs, refer to the **Truck Carrier Tool Quick Start Guide** for more tips and worksheets to help you gather your data for efficient and accurate Tool completion.

TOOL HELP AND NAVIGATION SCREEN

This screen presents the complete list of buttons available throughout the Tool (**Figure 23**). Becoming familiar with these buttons will make completing the Tool easier and faster. Select the HELP button for additional information regarding the data entry requirements for a given screen. Of special note is the small question mark ([?]), which appears next to new concepts when they are introduced throughout

the Tool. Selecting the question mark will reveal additional definitions of terms or instructions to help you complete the data fields properly.

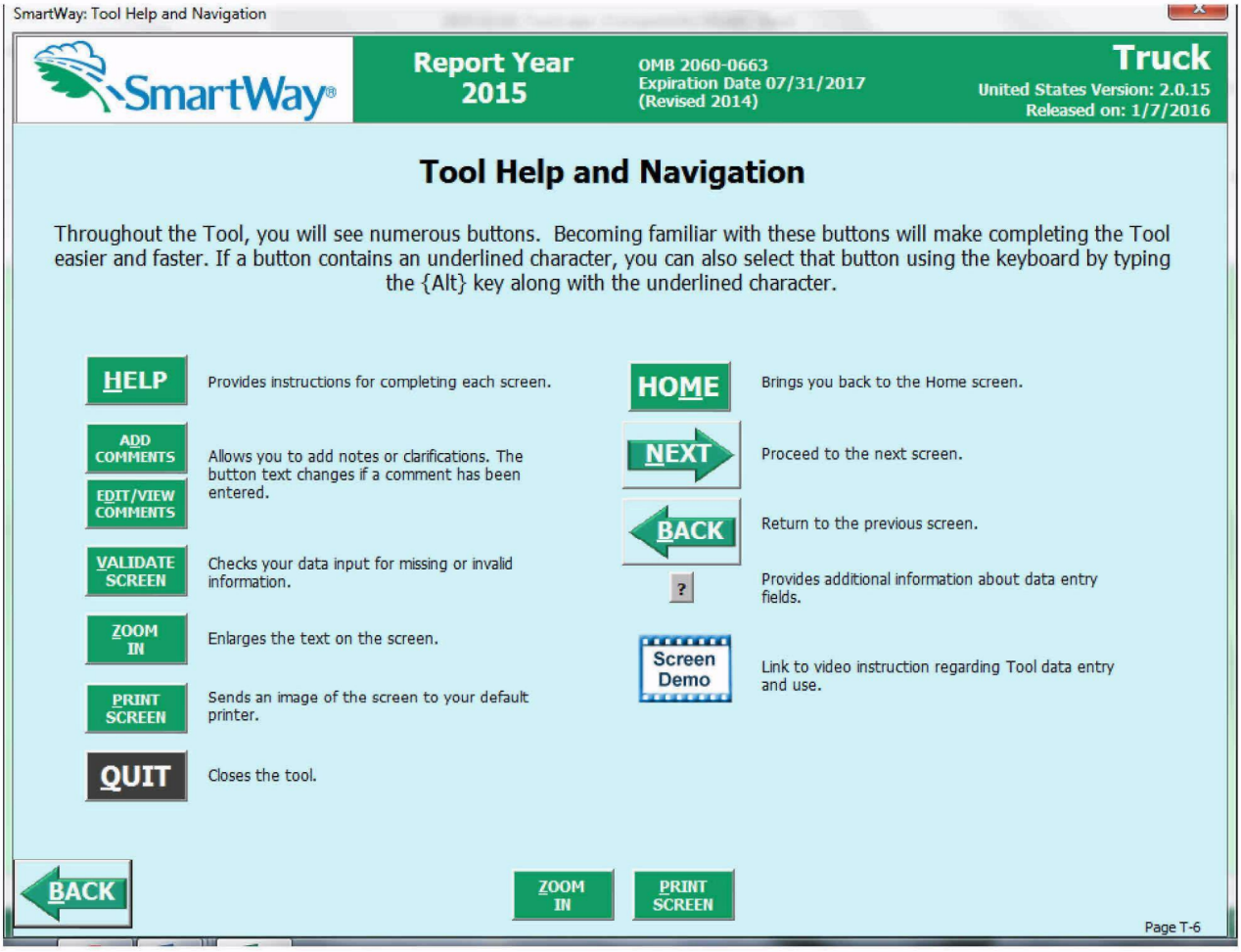


Figure 23: Tool Help and Navigation Screen

SCHEDULE OF TOOL DUE DATES SCREEN

The **Schedule of Tool Due Dates** screen shows the release dates and due dates for the various Partner tools for the 2016 calendar year (**Figure 24**). The screen also shows how the outputs from the various carrier tools serve as inputs to other "downstream" tools such as Multi-modal, Logistics, and Shipper.

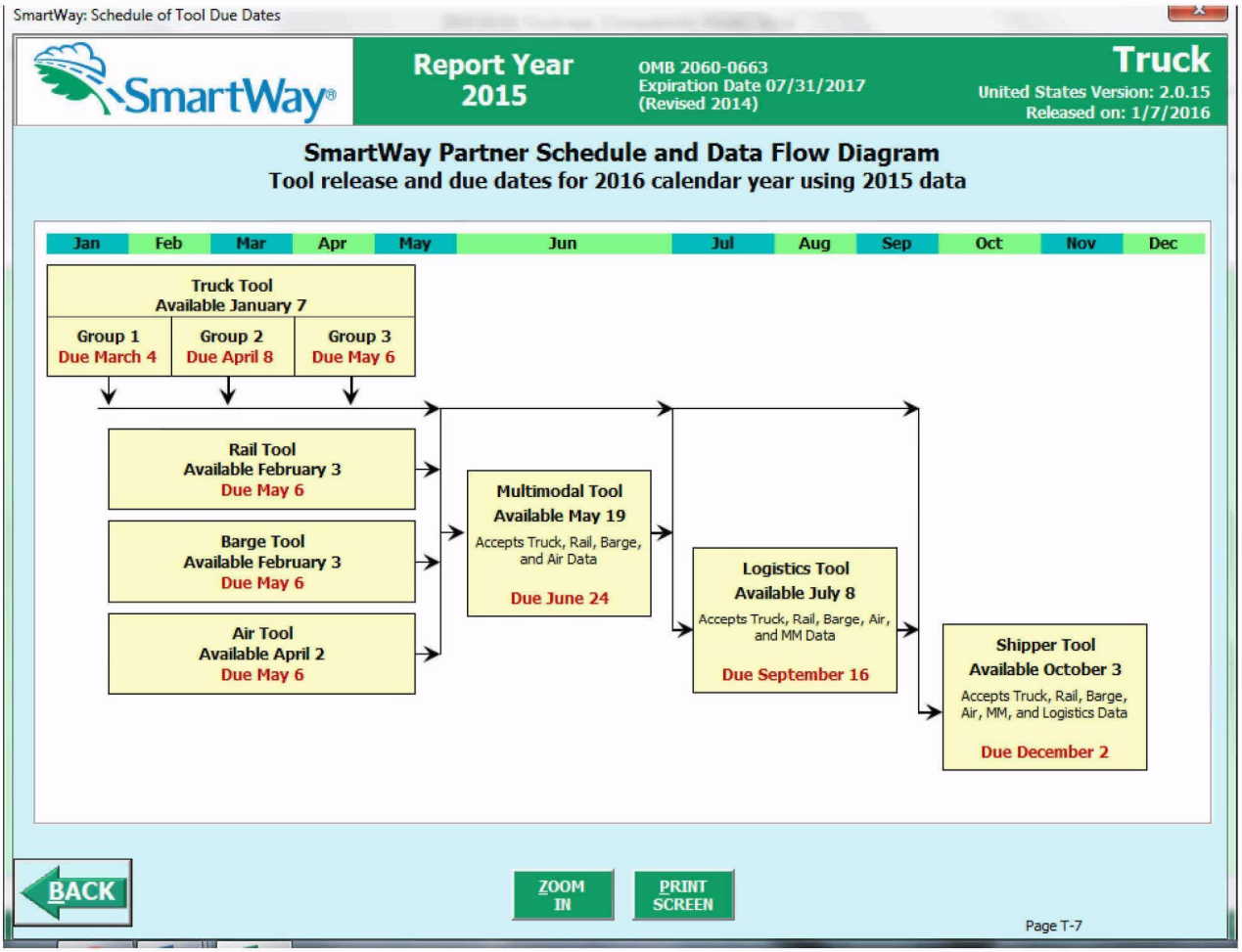


Figure 24: Schedule of Tool Due Dates Screen

After returning to the **Assistance for New Users** screen, you may select the **Link to the SmartWay website** button to proceed 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.

After selecting the **NEXT** button on the **SmartWay Assistance for New Users** screen, the **SmartWay Partnership Annual Agreement** will appear.

SMARTWAY PARTNERSHIP ANNUAL AGREEMENT SCREEN

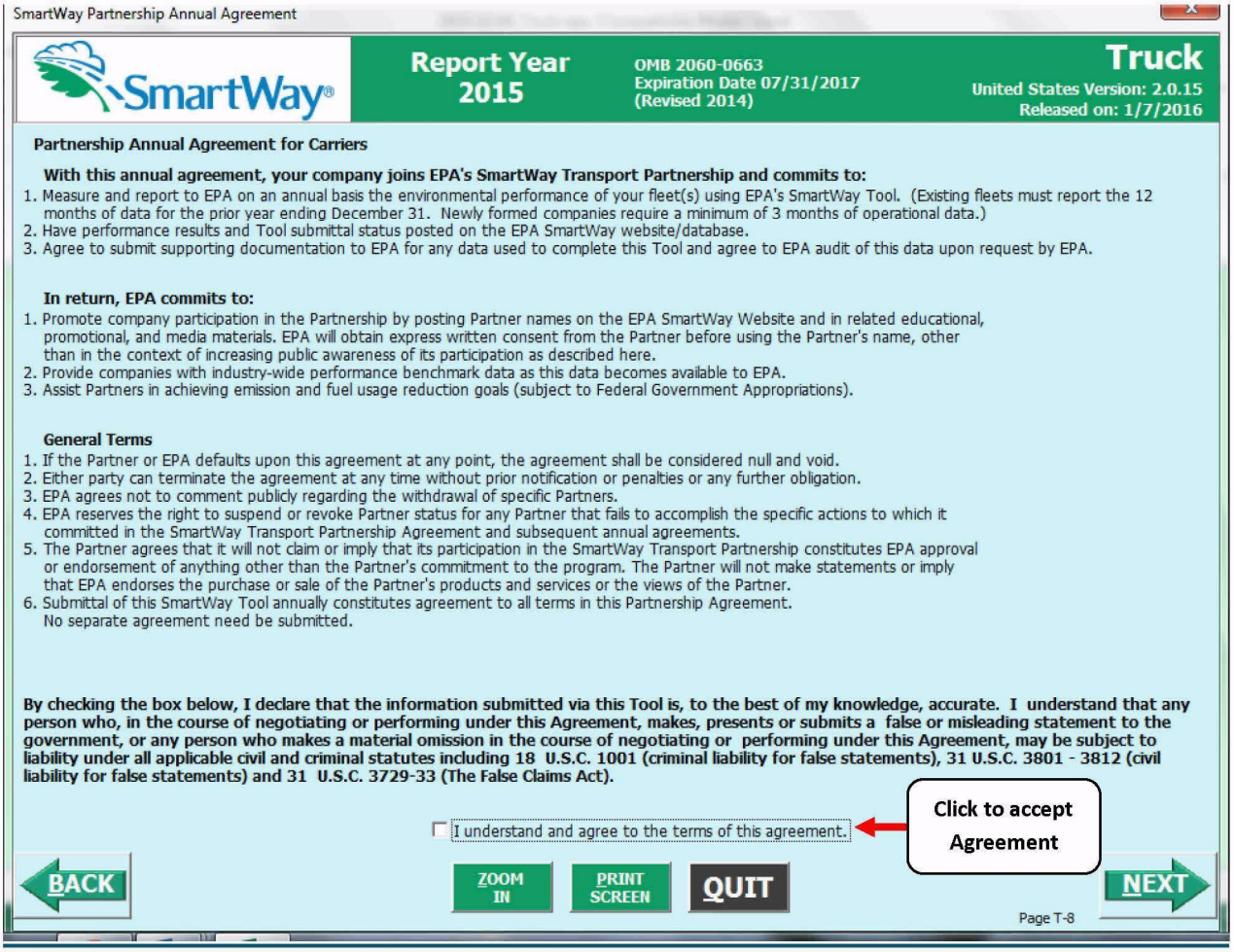


Figure 25: SmartWay Partnership Annual Agreement

Submitting a Truck Carrier Tool to EPA constitutes agreement to all terms of the Partnership Agreement, which is required for joining SmartWay and remaining a partner in good standing.

All participants in SmartWay are **strongly advised to read the agreement thoroughly.**

This screen presents the agreement details; in addition, a text version of the agreement is included in the Appendix of this guide and in the **Quick Start Guide** for your convenience.

If you have been assigned the responsibility for completing your Tool submission but are not in the position to approve the agreement, acquire any necessary approvals ***before*** trying to input data into the Tool.

To move to next screen, you must check the box indicating that your company accepts the terms of the Agreement.

AUTO-POPULATE SCREEN

Before proceeding to the **Home** screen you will see the **Auto-populate Steps 1 through 3** screen (**Figure 26**).

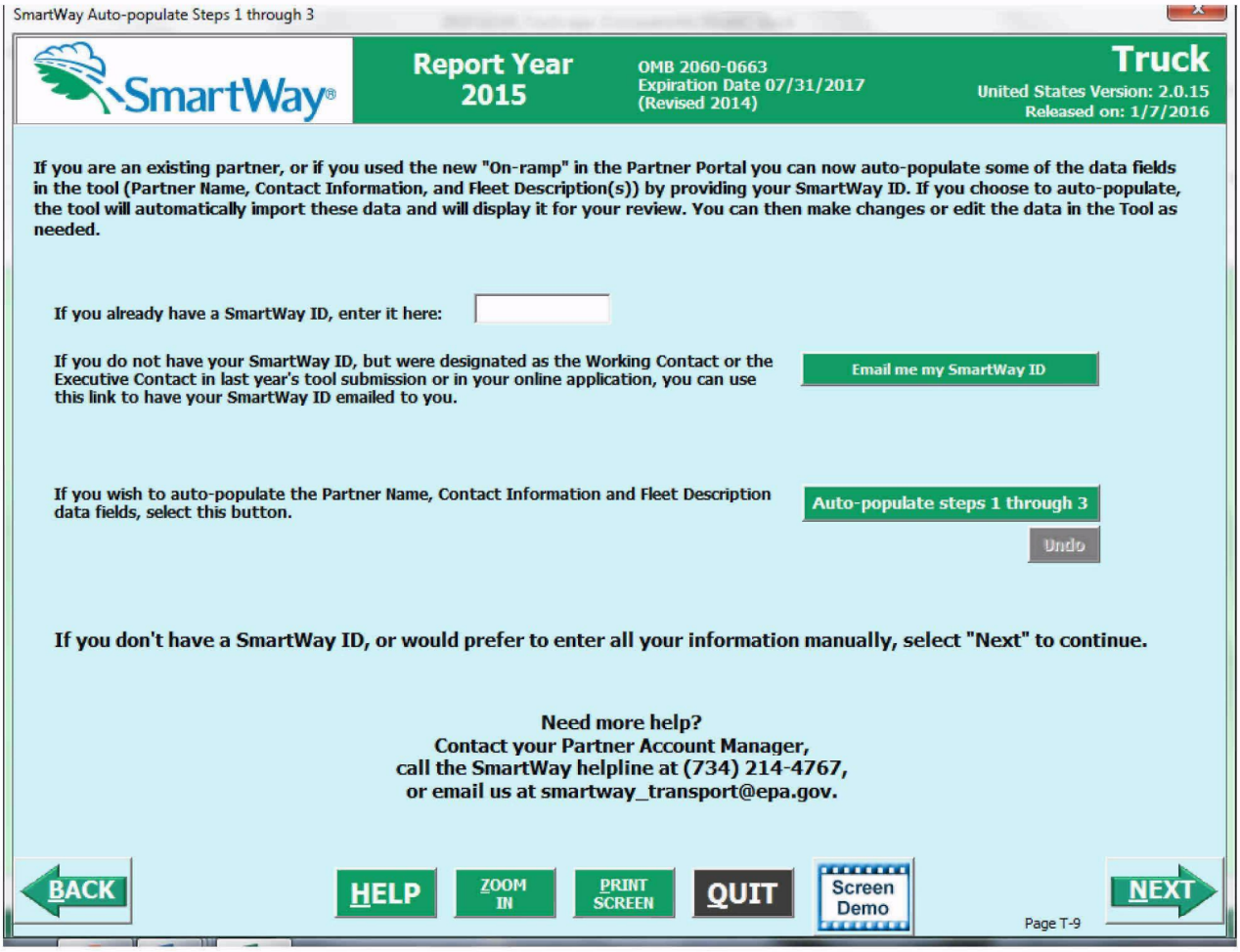


Figure 26: Auto-populate Screen

This screen allows you to input your SmartWay ID and automatically upload the information for the first three steps of the Tool (Partner Name, Contact Information, and Fleet Information), based on your prior year's submittal or, if you are a new partner, information submitted through the Partner Portal "On-ramp". This option can save time and ensure naming consistency for your contacts and fleet(s) from year to year.

If you prefer to enter this data manually, you may select

to skip this screen.

If you are the designated Working or Executive Contact for your company, but do not have your SmartWay ID, you may have it emailed to you it by selecting

. After entering

your SmartWay ID select **Auto-populate steps 1 through 3** and a summary of the data to be imported into the Tool will appear for your review. At this point you may reject the data import by selecting **Undo**.

When ready select **NEXT** to be taken to the SmartWay Truck Carrier Tool **Home** screen.

Basic Overview of How to Complete the Tool

All data entry screens are reached by starting with the Home screen.

Figure 27 displays the **Home** screen for users that have not selected the auto-populate option on the previous screen. (See page 57 to view an example **Home** screen after auto-population.)

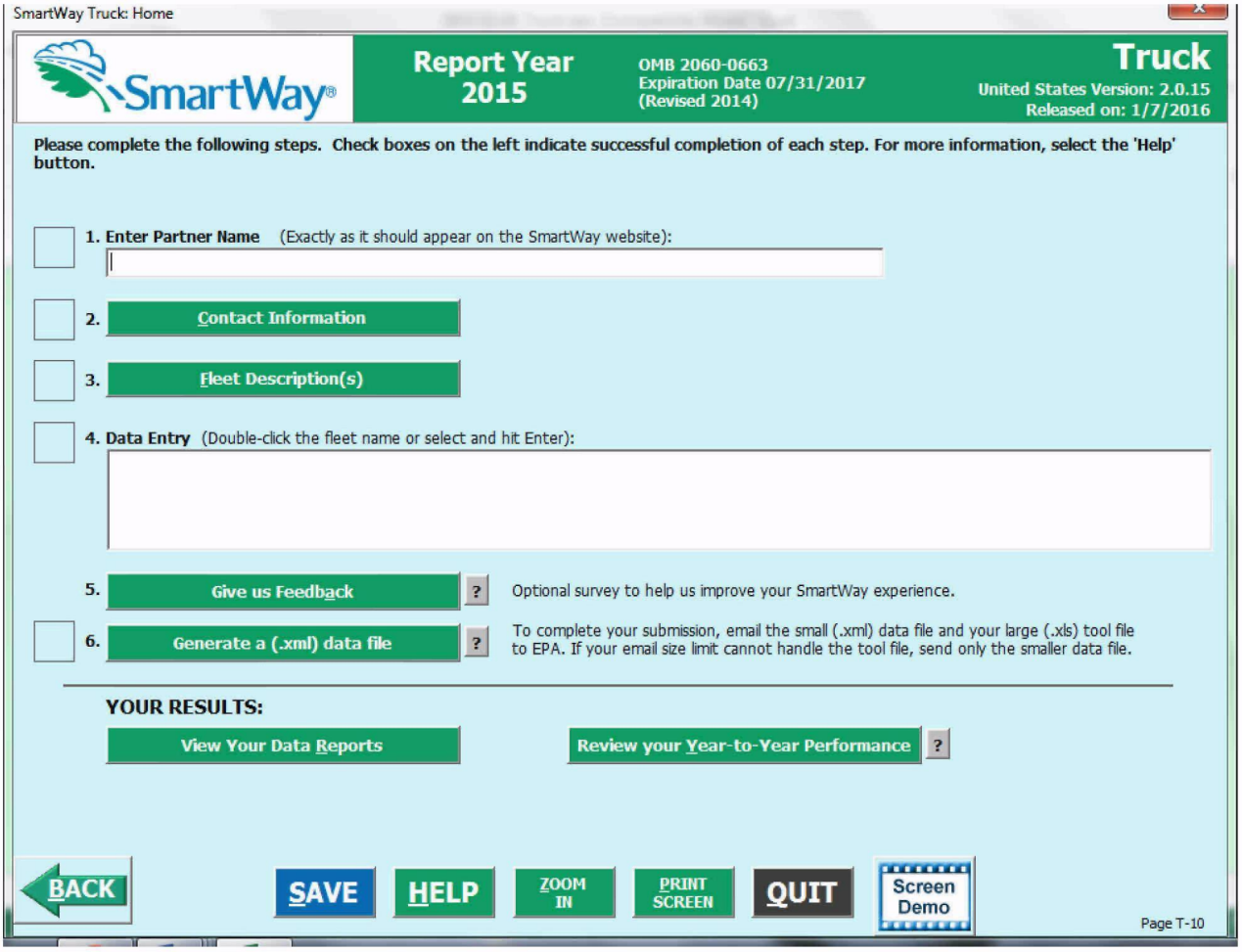


Figure 27: Main Tool Navigation or "Home" Screen

SECTIONS OF THE TOOL

The Truck Carrier Tool **Home** screen contains **six primary sections**. Each section links to additional screens or worksheets within the Tool which are described below:

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

Section 2: **Contact Information (button):** This button takes you to a screen that asks for general company contact information, a working SmartWay contact, and an executive-level contact. Additional contacts may also be included.

Section 3: **Fleet Description(s) (button)**: This button takes you to a screen that asks you to define all the fleets 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.

Section 4: **Data Entry (list)**: This section allows you to select the fleet for which you will be entering performance and fleet composition information necessary to calculate fleet efficiency metrics for your fleet; a list will indicate the fleet(s) defined and characterized in Section 3.

Section 5: **(Optional) Give Us Feedback (button):** Here you can give EPA feedback about the SmartWay program.

Section 6: **Generate a (.xml) Data File (button)**: This button creates a version of the Tool (in XML format) for you to send as an attachment in an e-mail to your Partner Account Manager (PAM), along with the Tool itself. Selecting the **OK** button on this screen does ***not*** automatically submit the file to EPA; you still need to submit it to EPA by attaching it in an e-mail.

The **Home** screen also contains two additional buttons that may be selected to review your data. EPA strongly encourages you to review these options closely before submitting your files.

- **View Your Data Reports (button)**: Here you can view final summaries of your data including all data inputs, fleet performance summaries, an "out of range" report (summarizing inputs that are higher or lower than expected values) and a summary of comments you have entered.
- **Review Year-to-Year Comparison of Fleets (button):** This option 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 performance over time.

ENTERING YOUR DATA

With the exception of Section 1, selecting the buttons or list items in Sections 2 through 5 will take you to additional screens and worksheets that comprise the data entry segments of the Tool.

The first four sections of the Home screen are mandatory and MUST be completed in order. These sections comprise all the data collection steps needed to complete your SmartWay Truck Carrier Tool. After they are completed, you can review your output and/or submit your Tool to EPA.

Once you complete each mandatory step, a ☑ will appear on the left of the screen.

Validating Your Data

The Truck Carrier Tool includes range checks and other validation rules to help identify potential data entry errors and/or unusual data values. To identify potential data problems and ensure a high quality data submission, select the VALIDATE SCREEN button before moving on to the next screen.

The Tool will identify any potential data problems on that screen and prompt you to modify the entry or provide a text explanation for legitimate anomalies.

Saving Your Data

You can save the data you have entered at any time by selecting the SAVE button that appears at the bottom of all screens (including the **Home** screen). EPA recommends saving your data frequently if you are entering information for large numbers of fleets and/or vehicle classes.

Reviewing Your Data

Each screen within the Tool has a PRINT SCREEN button. To generate a hard copy of screen text or your data inputs, select this button. The screen will be printed on your default printer. Alternately, you can return to the **Home** screen, select the View Your Data Reports button, identify the report of interest using the **Reports Menu**, and print them out for review. The data reports provided by the Truck Carrier Tool are discussed further in the **View Your Data Reports** section of this guide.

Submitting Data to SmartWay

Detailed instructions on properly submitting your data to EPA is included in this guide on page 108.

PART 3: SECTION-BY-SECTION DATA ENTRY GUIDANCE

Preparing for Data Entry

To participate in SmartWay, truck carriers need to gather the following essential information to complete the Truck Carrier Tool:

- The official company name EXACTLY as you would like it presented on the EPA website
- Company contact information
- Contact details for your Working Contact
- Contact details for an Executive Contact (cannot be the same as the Working Contact)
- Split between US/Canada operations
- Quarterly IFTA statements[1] (for activity data) for the reporting calendar year
- Fleet details for all fleets you control:
    - SCACs, MCNs, DOT and/or NSC[2] number information
    - Total inventory of vehicles in your fleet(s), sorted by vehicle class and engine model year, body type, and operational category for the reporting calendar year
    - Total miles, revenue miles and empty miles
    - Total diesel, biodiesel and other fuel type use by class
    - Reefer fuel use by class (if applicable)
    - Average payload, average cargo volume, and average used cargo volume percent
    - For less-than-truckload carriers, average load weight and average number of loads per truck
    - Average idle hours per truck
    - Use of particulate matter control equipment by truck class and engine model year (if applicable)
- Data sources for all data to be entered
- SmartWay ID number (if this is not your first Tool submission)

This data must be provided for all of your company's fleets. This data reflects the amount of freight carried by each carrier, the distance that freight is carried, and the fuel consumed to carry the freight.

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

[1] If applicable – for Class 7, 8a and 8b trucks only.
[2] NSC – National Safety Code, assigned to fleets with Canadian operations.

Section 1 Data Entry: Enter Partner Name

Section 1 of the Truck Carrier Tool asks you to "Enter Partner Name."

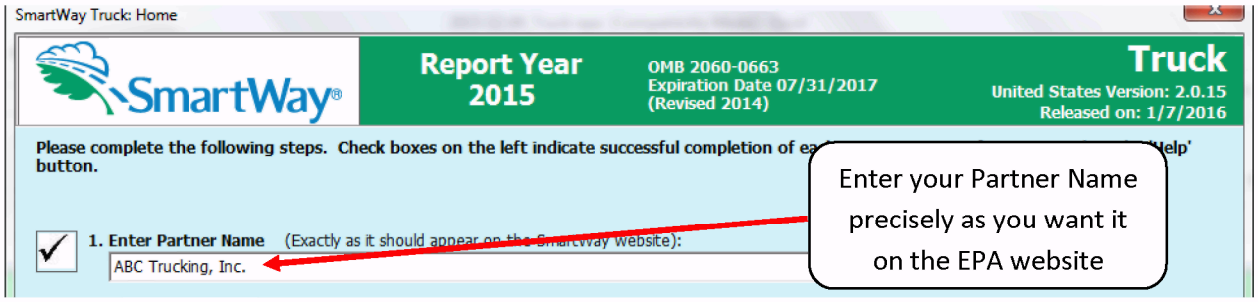


Figure 28: Field for Entry of Partner Name on Truck Carrier Tool Home Screen

EPA publishes your company's official name on the EPA SmartWay website and in the SmartWay Carrier Data File. This is how your customers will know that you are a SmartWay Partner, and how SmartWay Shippers and Logistics companies will be able to identify your fleets for their reporting purposes. The name that EPA lists is known as your "Partner Name" and is defined within Section 1 of the Truck Carrier Tool.

Therefore, it is essential that you specify your company's Partner Name EXACTLY as you want it to appear on the SmartWay website.

Pay special attention to proper capitalization, abbreviations, and punctuation, and remember that EPA will use whatever you enter EXACTLY as reported.

Steps for Entering Partner Name

1. Type your Partner Name EXACTLY as you would like it to appear on the SmartWay website in the field as indicated.
2. Proceed to Section 2 to enter contact information.

Section 2 Data Entry: Enter Contact Information

The Contact Information section is where you identify all points of contact between EPA and your company that are related to your participation in SmartWay.

Section 2 asks you to select the green button labeled "Contact Information."

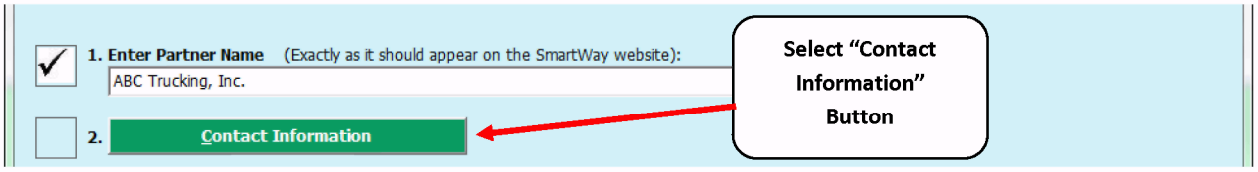


Figure 29: Select Contact Information Button on "Home" Screen

You will then be taken to the **Contact Information** screens. These screens will ask you to, provide the following information:

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

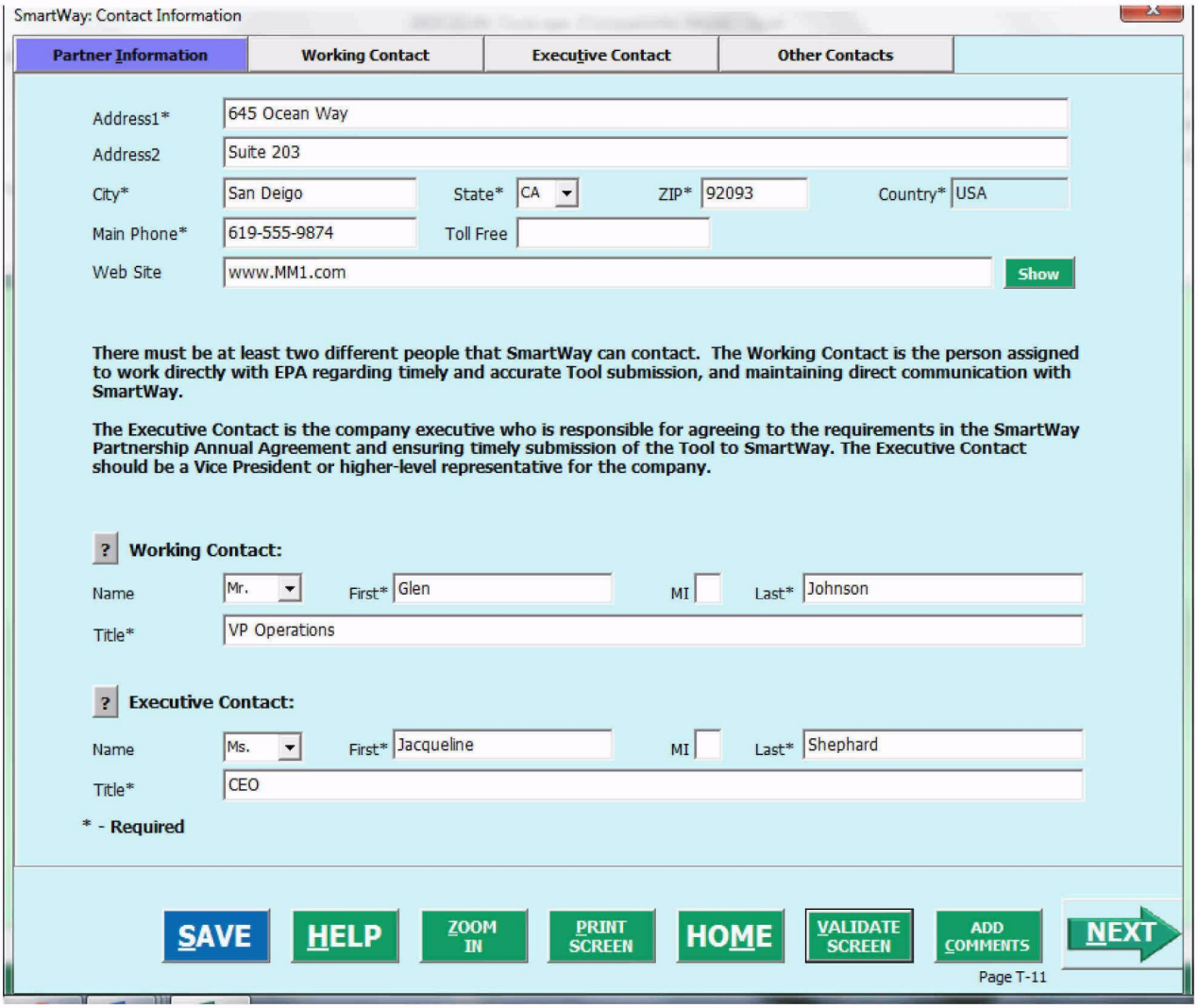


Figure 30: Entering Company and Contact Information

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

<u>Steps for Entering Contact Information:</u>

Under the Partner Information tab:

1. **Enter the Company data**.
2. **Enter the Working Contact** name and title.

The **Working 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 Working Contact is responsible for coordinating the assembly of information to complete/update fleet 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 contacts may need to add SmartWay/EPA to their preferred list of trusted sources.)

3. **Enter the Executive Contact name and title**

   The **Executive Contact** is the company executive who is responsible for agreeing to the requirements in the SmartWay Partnership Annual Agreement, overseeing the Working 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.

Under the Working Contact tab:

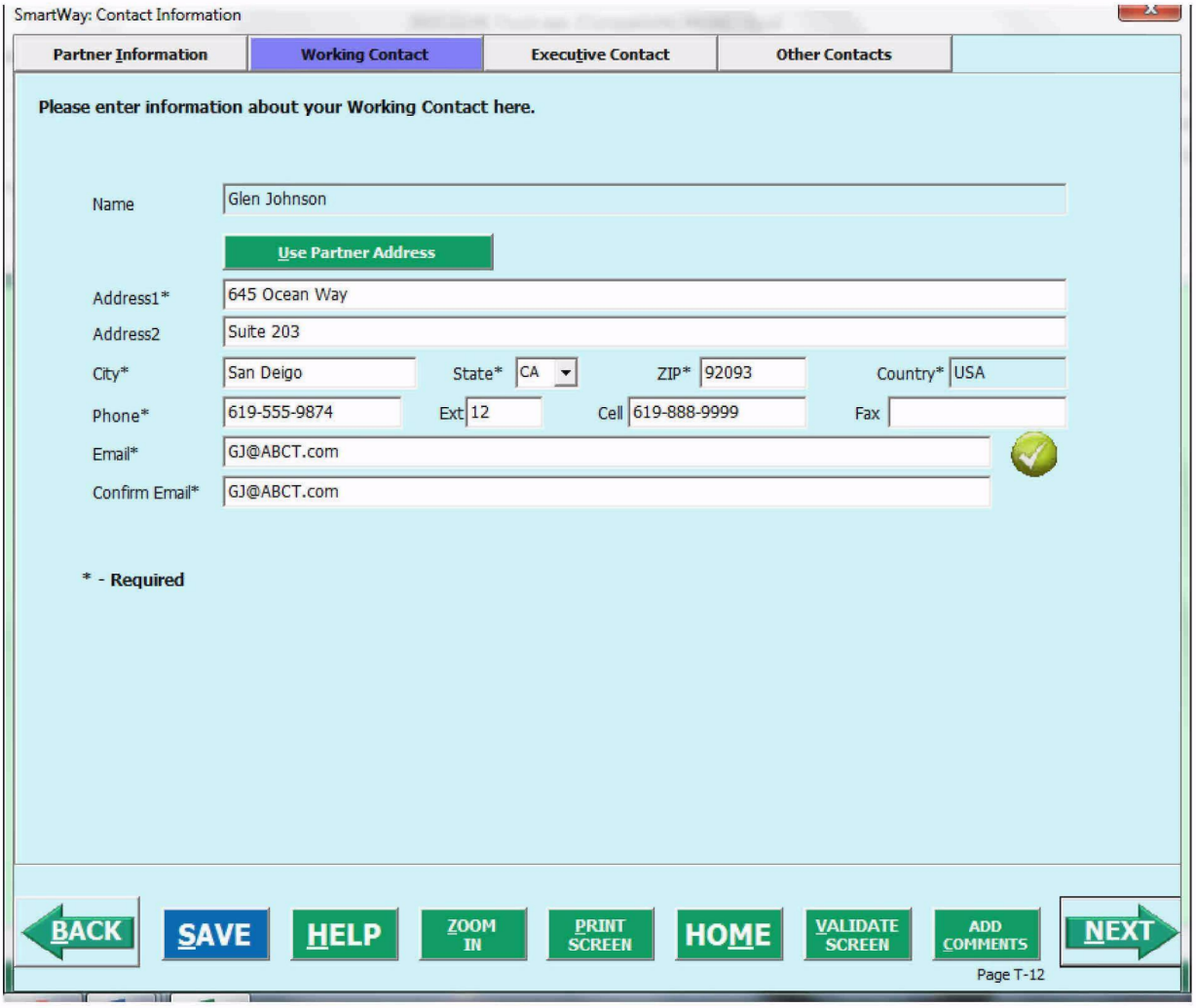


Figure 31. Working Contact Information Screen

1. Enter the Working Contact information. If the Working 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 email address twice to confirm its accuracy. When confirmed a will appear to the right.

Under the Executive Contact tab:

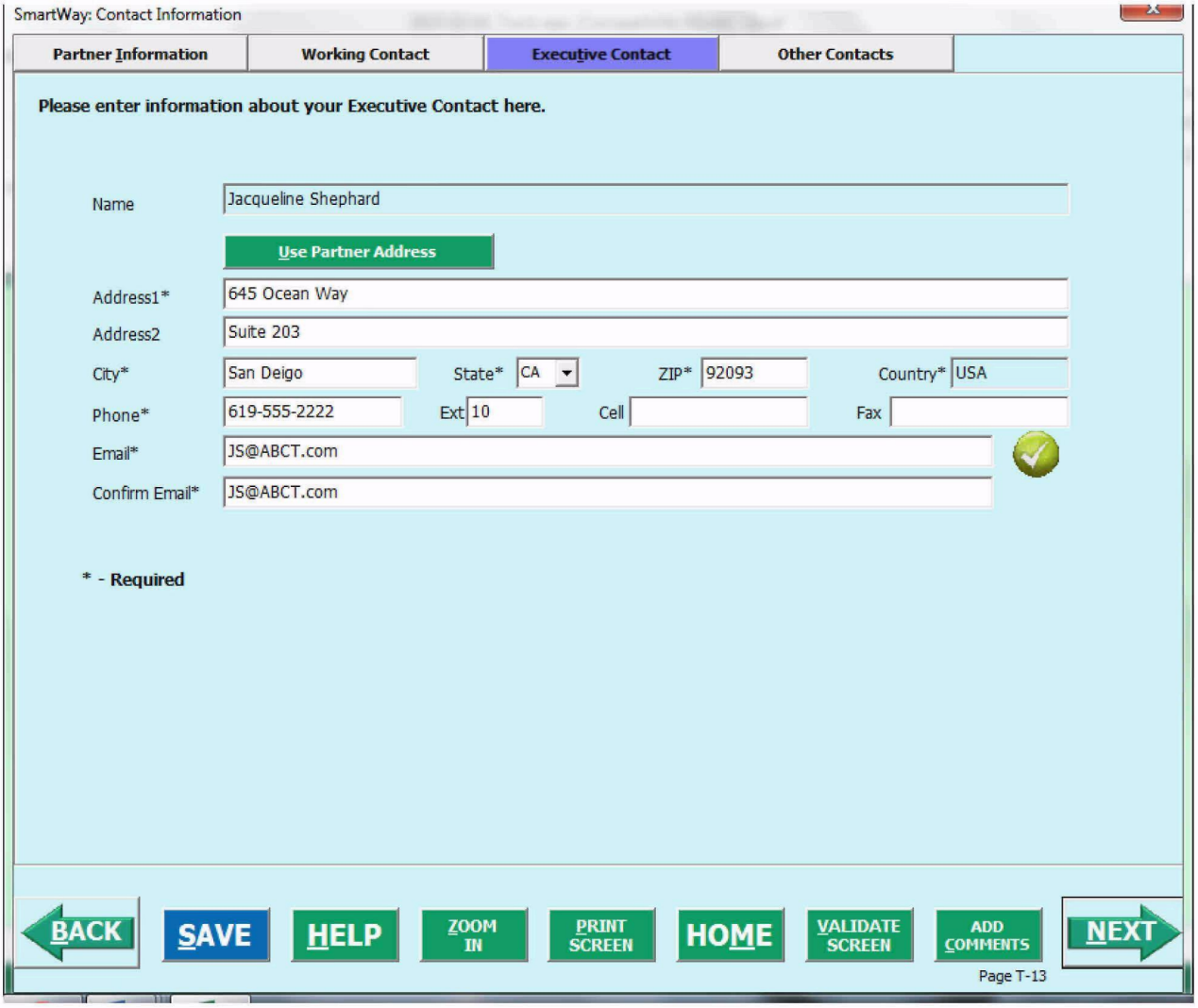


Figure 32. Executive Contact Information Screen

1. Enter the Executive Contact information. If the Working 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.

Under the Other Contacts tab:

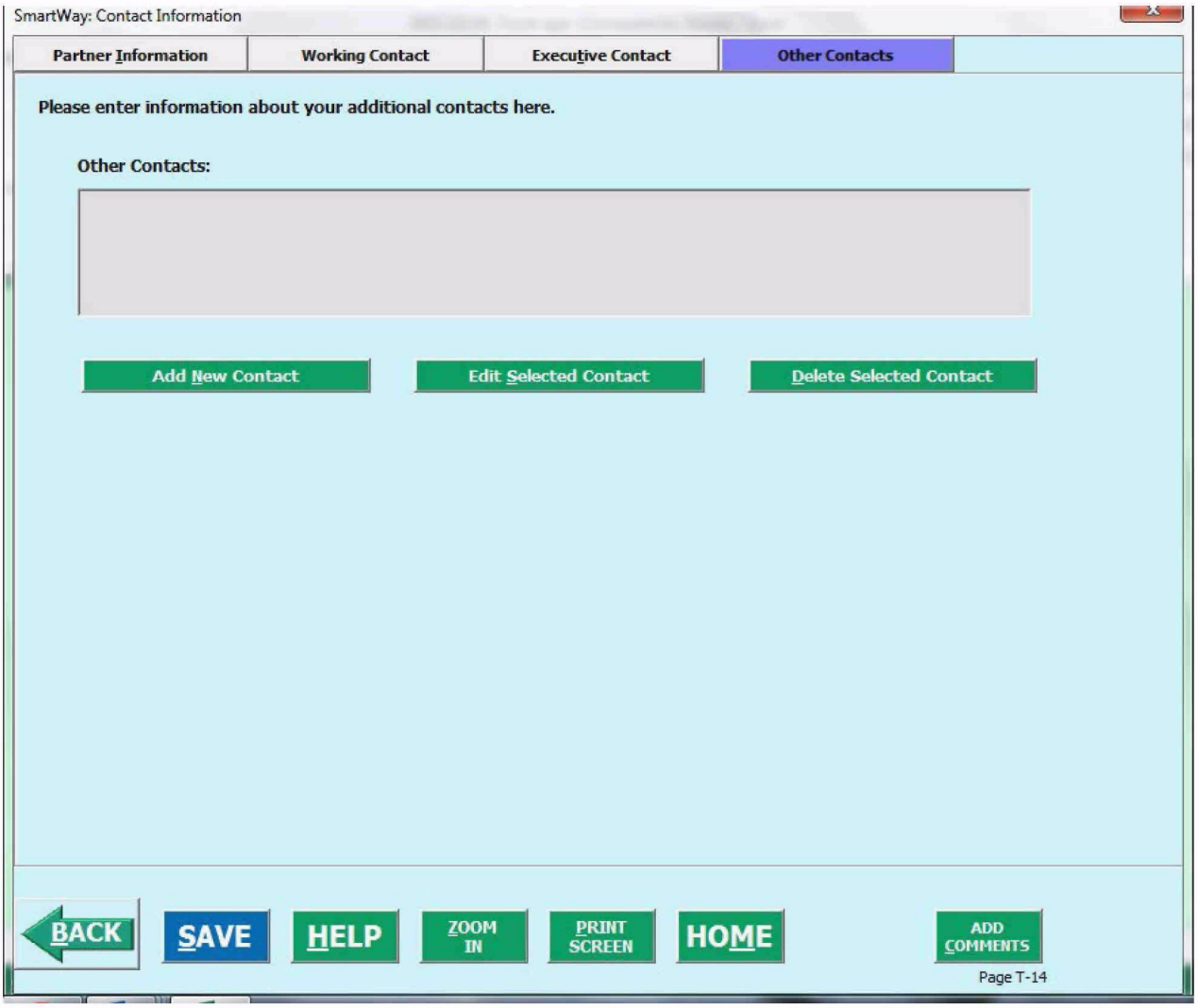


Figure 33. Other Contact Information Screen

1. Enter Other Contacts (if applicable) by selecting the Add New Contact button.
2. Enter the first Other Contact then select OK when done.

Note: You must supply at least two unique contacts on the contact screen to ensure EPA has access to at least two people for Tool submission follow-up.

NOTE: In some cases, companies with multiple fleets will gather information from different sources within the company. You may find it useful to have this additional contact information stored within the Tool.

You can add more contacts 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.

To make sure you have filled out all required contact information, select VALIDATE SCREEN at the bottom of the screen on the Partner Information tab. If any information is missing or invalid, a dialogue box will appear informing you what additional information is required.

4. Next select the HOME button to return to the **Home** screen and go to Step 3.

Section 3 Data Entry: Fleet Description

The third section of the Tool is the "Fleet Description" section. This is the section where you will define the various components of your fleet(s).

The Truck Carrier Tool allows you to assess your operations by defining multiple fleets. If a customer has the ability to hire a specific fleet by name or type, you should add that fleet to the list of fleets that you will characterize in the Truck Carrier Tool. Do not include internal company fleet definitions or designations—only include separate fleets as they would be identified and hired by your customers.

There are five screens in the **Fleet Description** section of the Tool:

- Identify Fleets
- Fleet Details
- Operation Categories
- Body Types
- SmartWay Category

Each screen, and the steps required to complete it, is described below.

"IDENTIFY FLEETS" SCREEN OVERVIEW

The **Identify Fleets** screen is shown below:

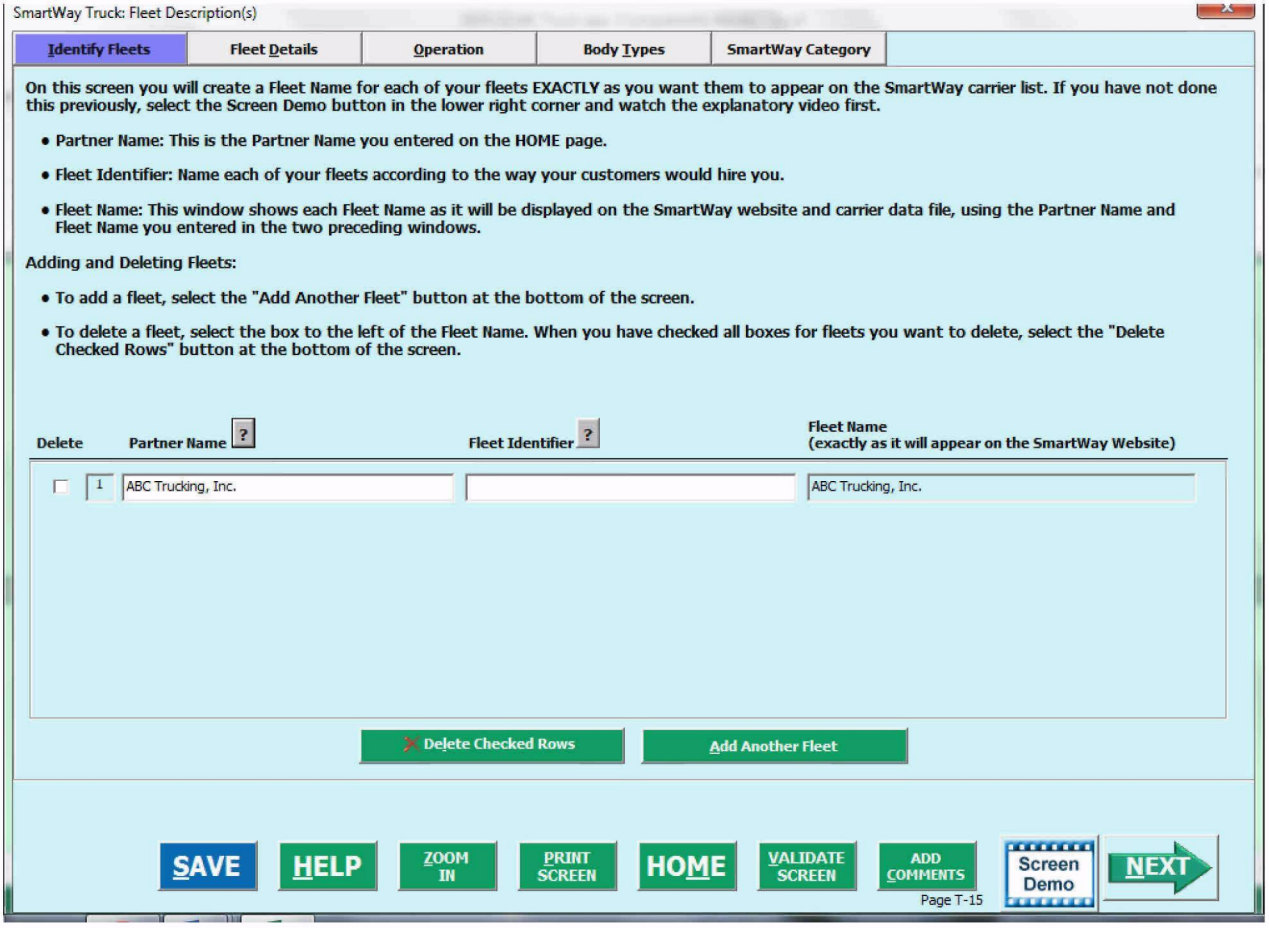


Figure 34: Identify Fleets Screen

You will be asked to establish a name for each fleet that a customer can hire. The Truck Carrier Tool combines your Partner Name (as defined on the **Home** screen in Section 1) with a Fleet Identifier that you provide on the **Identify Fleets** screen to establish your final Fleet Name.

Each of your Fleet Names will begin with the name of your company. This fleet "prefix" will be whatever you enter in the Fleet (Partner Name) field on the **Identify Fleets** screen. By default, this field is automatically populated with the first 50 characters of the Partner Name that was entered on the **Home** screen; however, you may change the prefix here by simply typing your desired prefix into the field below the heading Fleet (Partner Name). You should specify the text so that it appears EXACTLY as it you want it to show within each fleet name. Pay special attention to proper capitalization, abbreviations, punctuation, and other terms (such as Inc. or Ltd.) and adjust as necessary.

Remember that this prefix will be automatically inserted at the start of each of your Fleet Names in the SmartWay Carrier Data File. Whatever you enter for Fleet prefix for the first fleet will automatically be

used for any additional fleets you add. Similarly, any edits you make to the Fleet prefix for the first fleet will automatically be reflected on each subsequent fleet.

To define each fleet name, you will be required to enter the Fleet Identifier. This should be an identifier recognizable to your customers. Again, make sure to specify each Fleet Identifier name exactly as you want it displayed in the SmartWay Carrier Data File, including proper capitalization, any abbreviations, and punctuation. Remember that it will automatically be combined with the Fleet prefix (Partner Name) field.

Once you have added your Fleet Identifiers, the complete fleet name (with Partner Name and Fleet Identifier combined) will appear in the grayed-out box on the far right of the **Identify Fleets** screen.

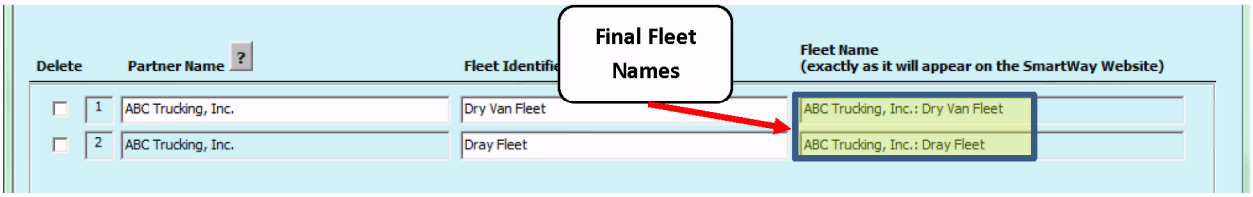


Figure 35: Example of final Fleet Name formatting

NOTE: If you have only one fleet, you may leave the Fleet Identifier field blank, in which case your fleet name will simply be presented as the "Partner Name" you entered.

If you have more than one fleet, you will need to add the fleets separately. To enter another fleet, select the Add Another Fleet button.

Adding 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.

The ADD COMMENTS button located at the bottom of the screen allows you to enter notes about the data collection process, your assumptions and methods, or other information. These details could prove useful for your reviewer when you or someone else completes the Tool next year.

The ADD COMMENTS button will be highlighted in yellow on your screen if comments have been added for a particular screen.

The button will then read VIEW/EDIT COMMENTS to indicate to your reviewer that there are comments to be read.

If, at a point later in the data entry process, you realize that you need to add a new fleet or delete an existing fleet, you can return to the Identify Fleets screen.

To add a new fleet, follow all of the instructions on the screen regarding defining your fleets, including selecting the CREATE FLEET(S) button at the end of the process (on the **SmartWay Category** screen). When you select this button, the system will create blank data entry forms only for the new fleet(s) you have added; the existing fleets will not be affected.

If you need to delete an existing fleet, simply check the box next to the fleet and then select the Delete Checked Rows button. And, as on the other tabs, there is a HELP button as well as an ADD COMMENTS button. Selecting HOME will take you back to the **Home** screen

STEPS FOR COMPLETING "IDENTIFY FLEETS" SCREEN:

1. On the **Home** screen, select the Fleet Description(s) button to display the **Fleet Description(s)** screens.
2. Confirm that the Partner Name that appears automatically is correct and appropriate for your fleets. If not, make changes in the field under the heading "Partner Name."
3. Enter the "Fleet Identifier" for your first (or only) fleet.
4. Enter additional fleets as needed:
   a. To enter another fleet, select the Add Another Fleet button.
   b. To delete a fleet, select the box next to the row you wish to delete, and then select the Delete Checked Rows button.
   c. Once you have confirmed or modified the Partner Name and specified the Fleet Identifiers, the full Fleet Names will be displayed on the screen to the right, exactly how they will be displayed on the SmartWay website.
5. To proceed, select the **Fleet Details** tab at the top, or simply select the NEXT button at the bottom of the screen.
6. Before moving on, a popup screen will appear asking you to verify that you are satisfied with your Fleet Name(s).
7. ***Verify that the Fleet Name(s) show exactly what you want customers to find in the SmartWay Carrier Data File.***
8. Select OK to proceed to the next screen. You may return to this screen later to revise your Fleet Name(s) if necessary.

"FLEET DETAILS" SCREEN OVERVIEW

The **Fleet Details** Screen is shown below:

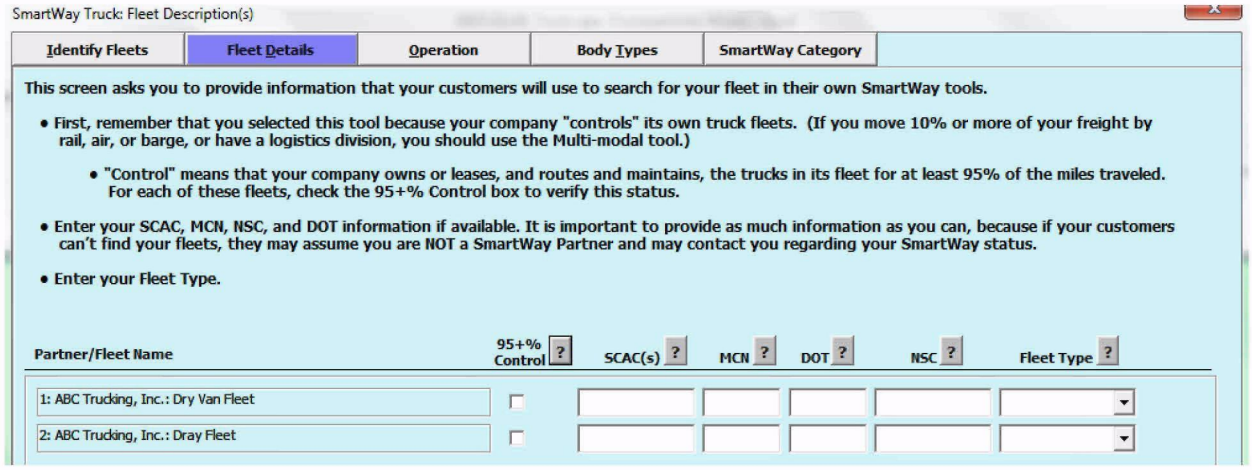


Figure 36: Fleet Details Screen

The Truck Carrier Tool is designed only for fleets over which you have total control. The **Fleet Details** screen asks you to:

1) Verify and declare that you have control,
2) Add identifying information to help SmartWay Shippers and Logistics Company Partners find your fleets, and
3) Identify the contacts for each of the fleets you defined in the previous screen.

"Control" means that you operate/route the vehicles, regardless of ownership status. Control includes dedicated fleets that you operate for other parties. 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 variations 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.

NOTE: If you contract out more than 5% of a fleet's operation, the SmartWay Logistics Tool should be used for that fleet.

Once you have confirmed that you control the fleets you have identified, you will be asked to provide further data that helps customers identify your fleets. The Truck Carrier Tool asks you to provide three types of industry identifier codes for each your fleets.

- **Standard Carrier Alpha Codes (SCACs)** are unique 2-4 alphabetic character codes used by the transportation industry to identify transportation companies. SCACs are assigned by the National Motor Freight Traffic Association, Inc., (NMFTA). If you cannot remember your SCAC(s), contact

NMFTA before proceeding. You can find NMFTA contact information at http://www.nmfta.org/Pages/ContactUs.aspx.

- **Motor Carrier Numbers (MCNs):** are 5, 6 or 7 digit numbers provided by the Federal Motor Carrier Safety Administration.
- **Department of Transportation (DOT) Numbers** are carrier identification number issued to all carriers in the U.S. by the Federal Motor Carrier Safety Administration, and can be up to 7 digits in length.
- **National Safety Code (NSC) Numbers** are carrier identification numbers issued to fleets with Canadian operations.

Entering SCACs, MCNs, DOT and NSC numbers is optional; however, if you have this information you are encouraged to supply it to make sure that SmartWay Shippers and Logistics companies can find you.

You will also need to establish the Fleet Type for each of your fleets, which is defined as the service type for your fleet. There are three options accepted by the Tool—"For-Hire", "Private" and "Dedicated." If your company has only one fleet, your "Fleet Type" selection will reflect your company's operations as a whole. If there are multiple fleets, each will have its fleet type defined separately.

Steps for Completing "Fleet Details" Screen

1. For each fleet, if you control over 95% of the operation of the vehicles (weighted by miles) check the box labeled "95+% Control."
2. Enter SCAC, MCN, DOT and NSC identifiers (optional) for each fleet listed. If you have a single fleet that has multiple SCACs, enter all of them into the SCAC field, and separate them with commas.
   - While it is not required to enter SCAC, MCN, DOT or NSC information for each fleet, it will help shippers and logistics companies searching by those parameters in the SmartWay database to easily find your fleet for inclusion in their Tool.
3. Select your Fleet Type (either "For-Hire", "Private" or "Dedicated") for each fleet listed.
4. Select the

button or select the **Operation** tab at the top to proceed to the next section.

"OPERATION" SCREEN OVERVIEW

The **Operation Screen** is shown below:

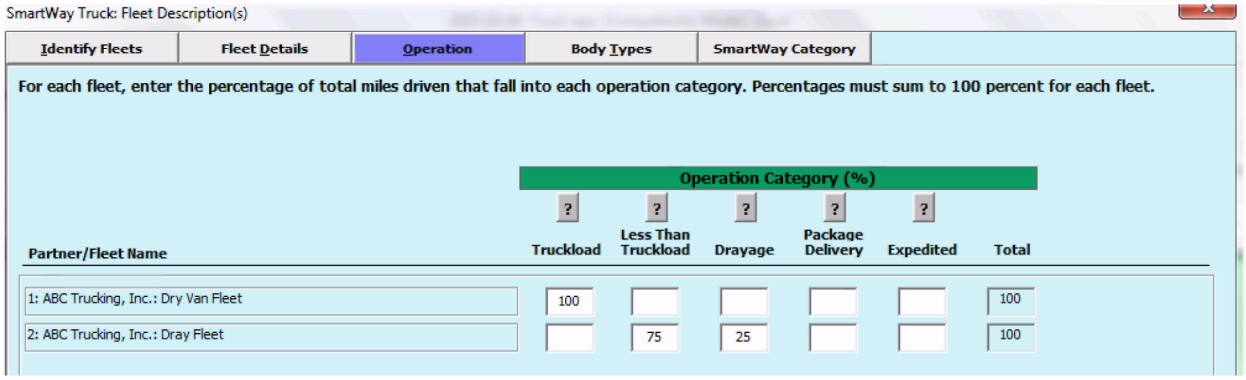


Figure 37: Operation Categories Screen – Example Fleet Inputs

For each fleet, you are asked to estimate the percentage of total mileage that is operated in each of five operation categories defined in the Tool. These Operational Categories are defined below:

- **Truckload (TL)** operations involve 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)** operations involve collecting freight from various shippers and consolidating 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 (Dray)** operations are predominantly associated with port or railhead connections where freight is picked up and moved to a transfer facility or transport mode terminal. These moves are often short in nature, but can be longer depending on specific situations.
- **Package delivery (PD)** operations are characterized by residential or business package pickup/delivery consisting primarily of single or small groups of packages. Package delivery does not include larger scale pickup/delivery operations that are more properly characterized as LTL operations.
- **Expedited operations** are time-sensitive freight shipments, with trucks typically waiting on stand-by.

You will be asked to enter the percent of each operational type based on approximate mileage. This percentage calculation does not need to be exact; however, it should be a reasonable representation of your fleet's operations.

NOTE: You should define your fleet's operations based on your customers' ability to choose them. For example:

- If a fleet is a mix of TL and LTL, you will indicate the percentages of each.
- If customers can choose to hire your TL fleet, your LTL fleet, or your dray fleet separately, then each should be regarded as a separate fleet.

STEPS FOR COMPLETING "OPERATION" SCREEN:

1. For each fleet identified, estimate the percentage of mileage each fleet spends in the five defined operation categories and enter your estimates in the fields provided. Leave the field blank if no mileage is associated with that operation category for that fleet.
2. Select the

button or select the **Body Types** tab at the top to proceed to the next section.

"BODY TYPES" SCREEN OVERVIEW

The **Body Types** screen is shown below:

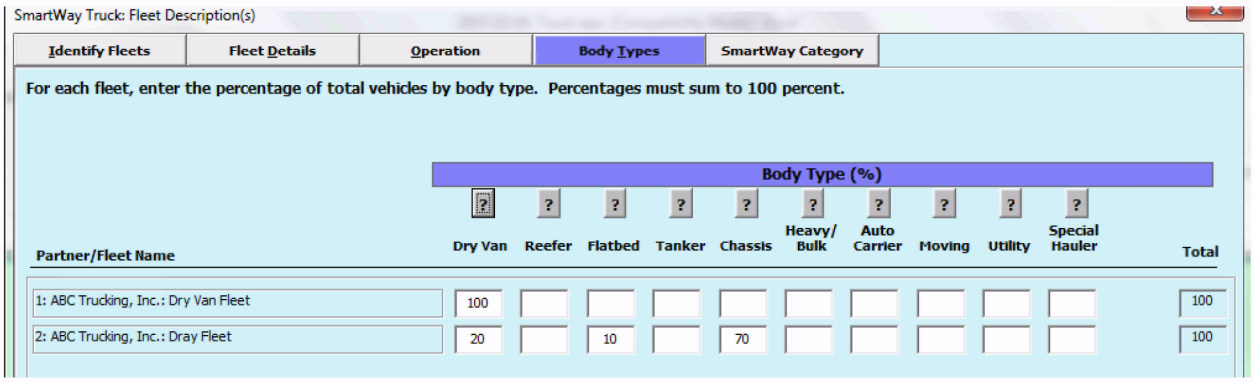


Figure 38: Example for Body Types Screen

Body Type categories as defined in the Truck Carrier Tool are:

- Dry van
- Refrigerated (Reefer)[3]
- Flatbed
- Tanker
- Intermodal chassis containers (pooled and owned)
- Heavy/Bulk hauler
- Auto carriers
- Moving
- Utility[4]
- Special hauler (e.g., Hopper, Livestock, and other specialized carriers)

STEPS FOR COMPLETING "BODY TYPES" SCREEN:

For each fleet, enter an estimate of the percentage of fleet mileage associated with each body type. The percentages specified can be approximate, based on vehicle populations. The percentages for each fleet must sum to 100%.

NOTE: If you specify activity for Special Haulers, a Describe button will appear next to the cell entry. You must select this button and provide a text description of your specialty haulers.

[3] If you specify reefer body types in your fleet you must also provide your estimated reefer fuel use in the Activity section of the Tool.

[4] 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.

"SMARTWAY CATEGORY" SCREEN

The **SmartWay Category** screen is shown below:

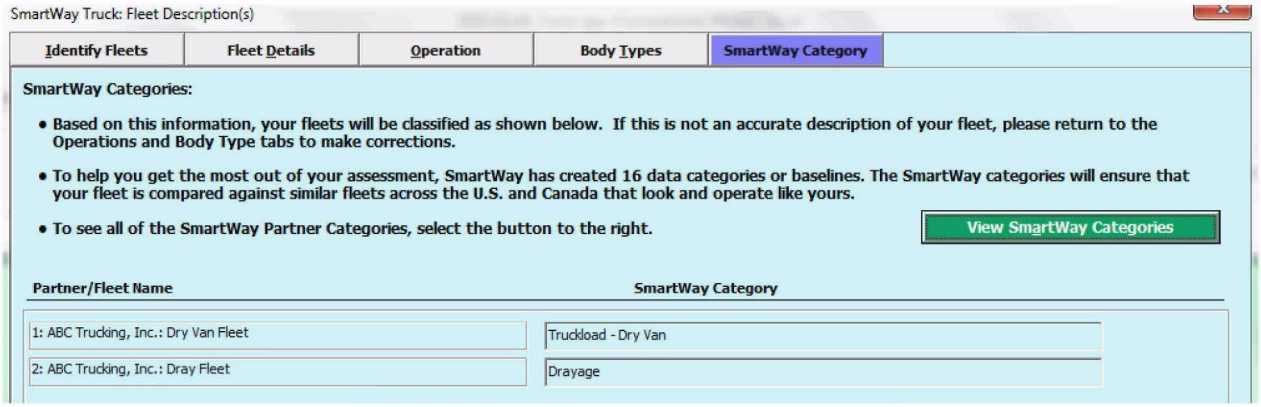


Figure 39: Example SmartWay Category Screen

The SmartWay Category designation for each of your fleets is shown on this screen, based on your selections on the **Operation** and **Body Type** screens. Your fleet's performance will be measured against other carriers with the same category designation, so please ensure you have characterized your fleet correctly before proceeding.

Once you are sure your information is input correctly, you may select the CREATE FLEET(S) button at the bottom of the page. You will be prompted then to confirm that you have identified all of your fleets. Return to the **Identify Fleets** screen if needed, otherwise select OK and you will automatically be returned to the **Home** screen.

Section 4: Data Entry (providing activity and fuel consumption information for your fleets)

In Section 4 of the Truck Carrier Tool, you will enter detailed activity and fuel consumption data for each of the fleets you identified and characterized in Section 3.

All Truck Carriers should enter the most recent 12 months of data into the Tool. If you are submitting for the first time and do not have a full year of operational data, you must collect a minimum of three months' data for input to submit a tool and join SmartWay. You will be required to submit a full year's data in the follow year's submission.

You will select and enter information about each fleet separately. To begin entering data for a fleet, you must first review the fleet's status in the Section 4 status window.

FLEET STATUS REVIEW OVERVIEW

Once you have returned to the **Home** screen, you will see all of your fleets listed in the window below **item # 4: Data Entry**.

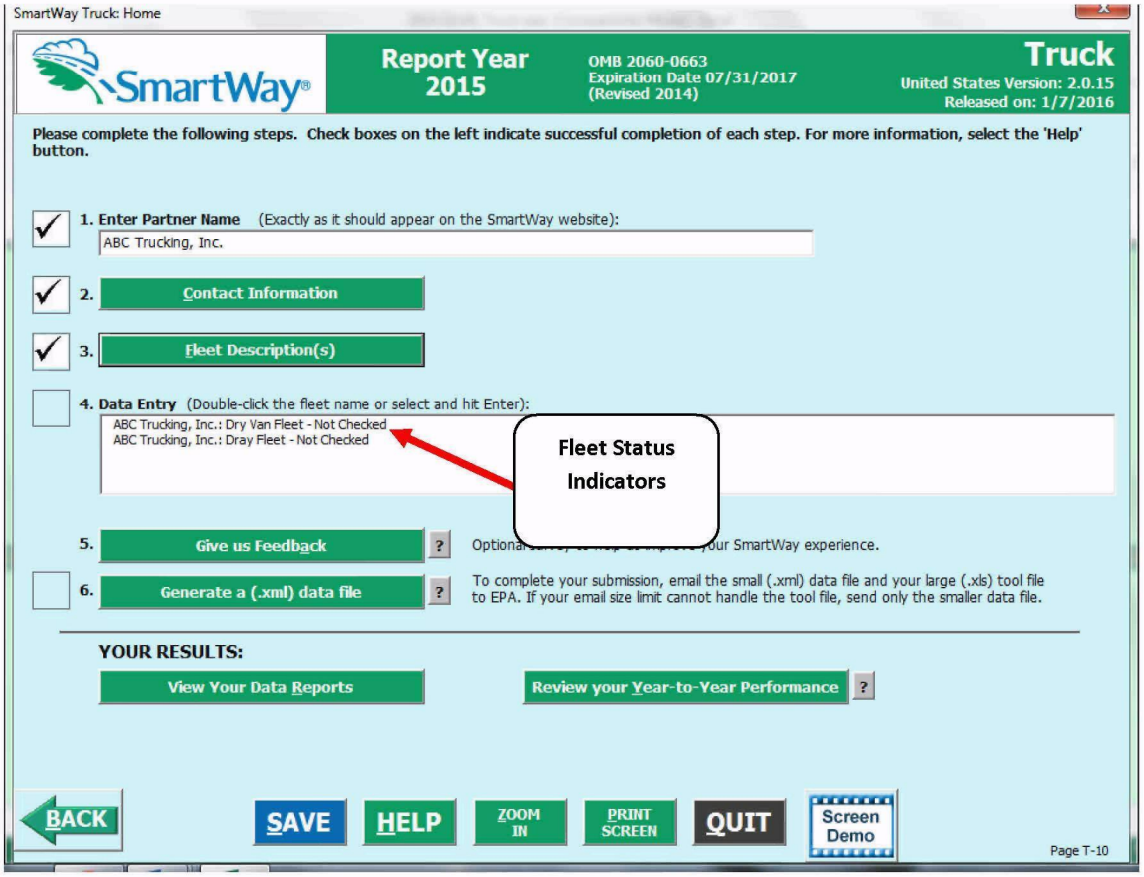


Figure 40: Home Screen – Fleet Status Prior to Activity and Fuel Data Entry

A status message appears after each fleet, indicating whether or not the data entry for that fleet is complete. There are three possible status messages:

- **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 messages above, you may also see one of two qualifiers: “Errors” or “Warnings.”

- **Errors** prevent you from generating internal metrics reports (under the “View Your Data Reports” section of the Tool), and **must be addressed** before you can submit your Tool to EPA. However, with errors, 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 submissions.
- **Warnings** will still allow you to run 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 file, highlight the fleet name and then double-click. You will then proceed to the Tool data entry screens.

AUTO-POPULATION OPTION:

If you used the auto-populate option to import the data for Steps 1 – 3, the **Home** screen will resemble the example shown below.

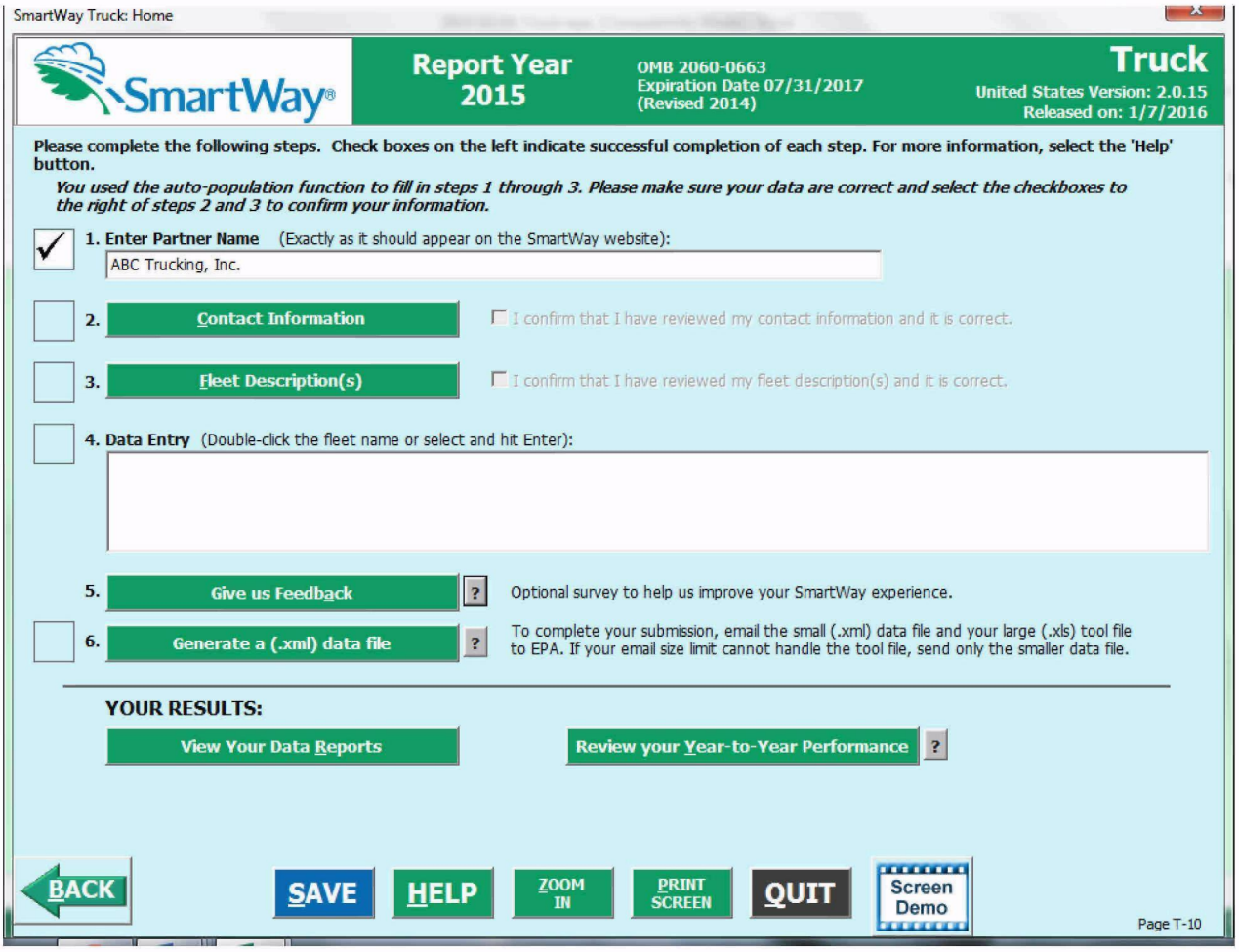


Figure 41: Example Home Screen After Using Auto-populate Function

First review the Partner Name as it appears on the screen, revising it as necessary.

Next, you MUST review the populated **Contact Information** and **Fleet Information** screens, and then select the boxes to the right on the **Home** screen confirming the accuracy of the data. These boxes will not become active until you have opened the **Contact** and **Fleet Information** screens for review.

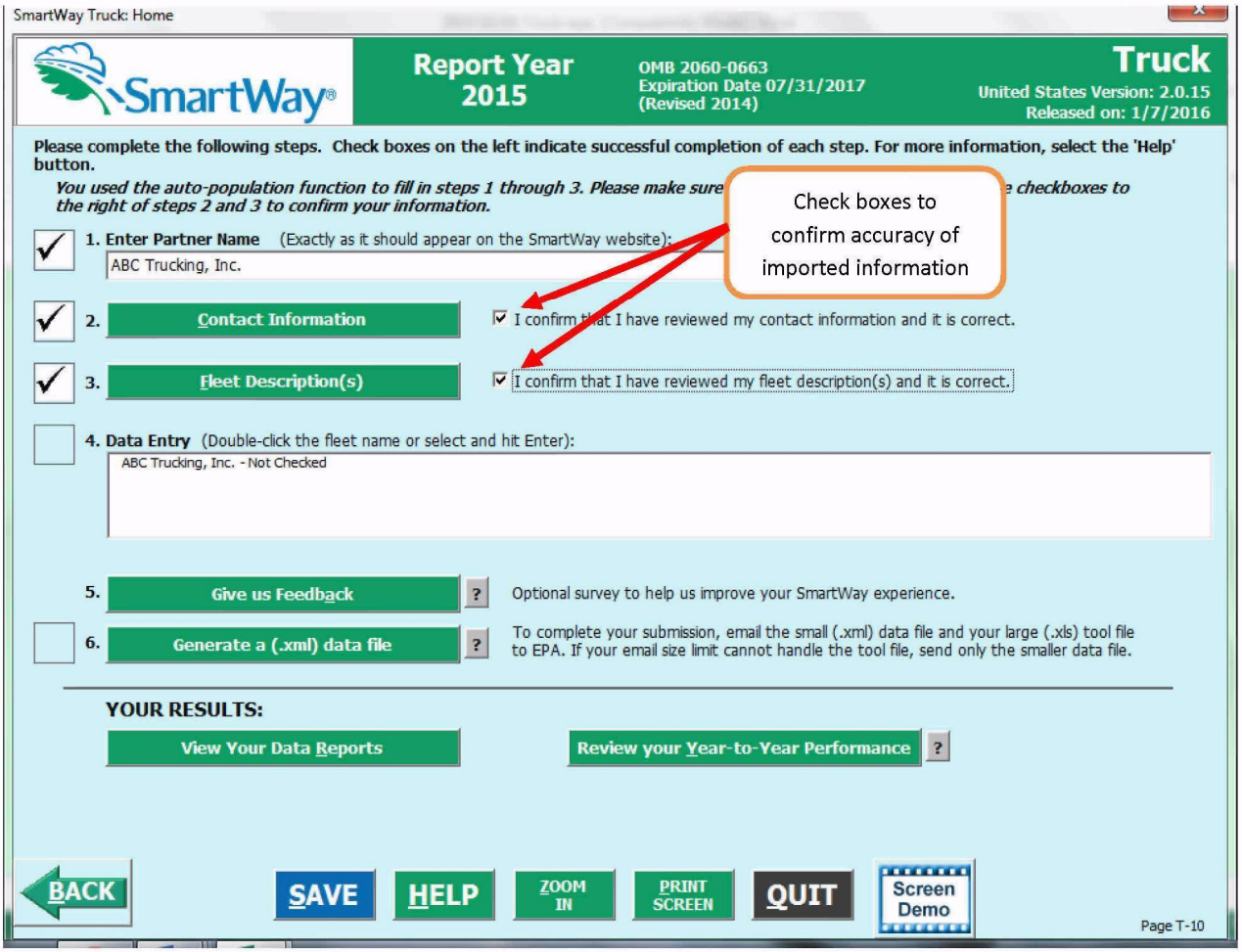


Figure 42: Example Home Screen Using Auto-populate – After Review of Steps 1 – 3

Once the confirmation boxes are checked you may proceed to Step 4.

Steps for Selecting a Fleet to Review:

1. Using your mouse, select and highlight the name of the fleet for which you wish to enter data.
2. Double click the Fleet Name; you will then be taken to the **General Information** data entry screen for that fleet.

"GENERAL INFORMATION" SCREEN OVERVIEW

The **General Information** screen is shown below:

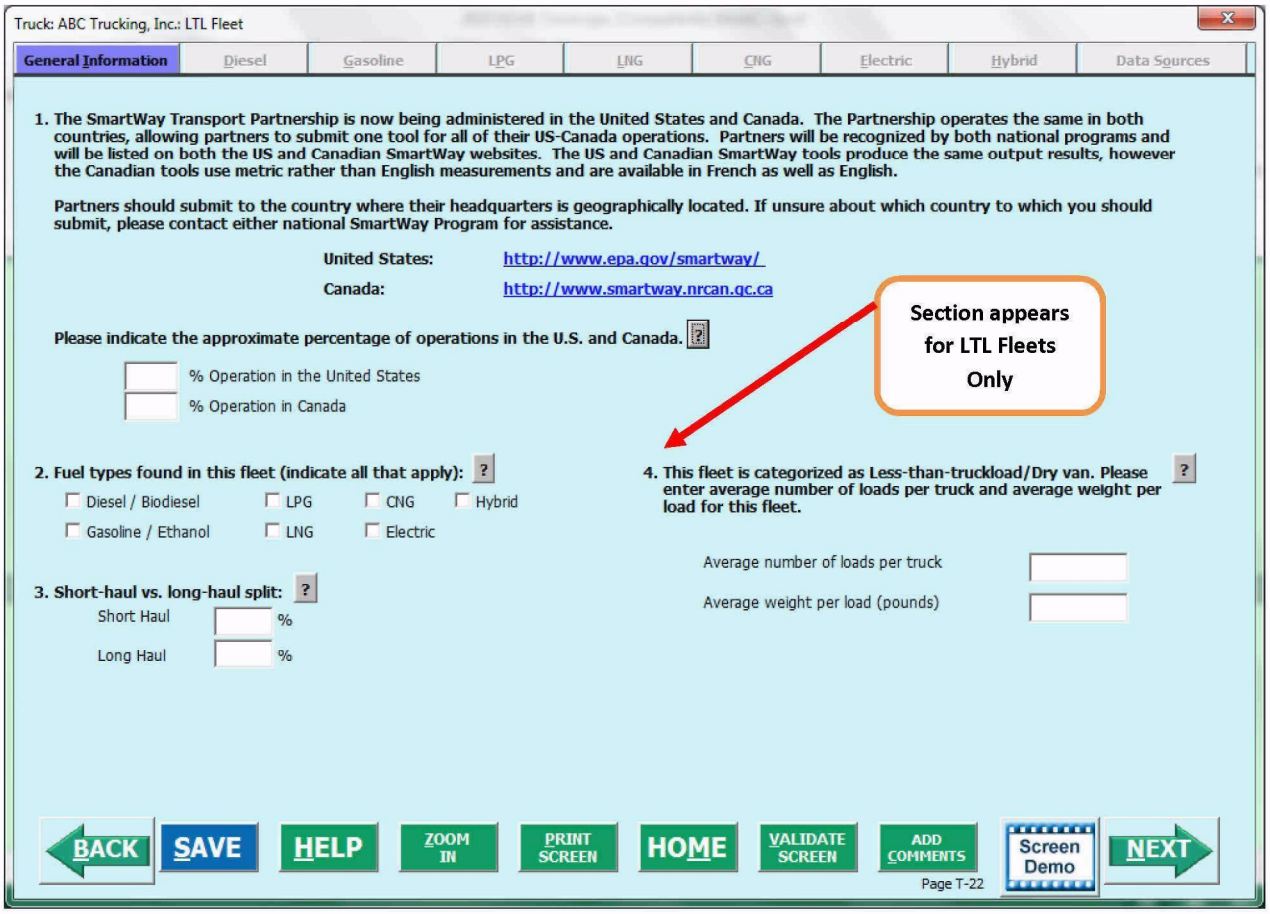


Figure 43: Sample Data Entry Screen for First Example Fleet– General Information

This screen asks you to provide information for three items, including fuel types used.

The first section asks you to indicate your fleet's percent operation in the U.S. and Canada. Acceptable metrics include miles, fuel consumption, or any reasonable quantitative means of allotting the approximate percentage of operations in the two countries.

NOTE: The SmartWay Transport Partnership is now being administered in both the United States and Canada. The Partnership operates the same way in both countries; however, data collection for Canadian Partners is collected in metric units and there are French translations of all Tool screens and guidance. If your company operates in both the United States and Canada, you should ONLY SUBMIT ONE TOOL. You may select either the US Tool or the Canadian Tool, and your partnership participation will be recognized in both countries.

Next, you must select the fuel types found in this fleet. This requires you to define all fuels the fleet used from a list of:

a. **Diesel/Biodiesel:** petroleum diesel and/or biodiesel made from any renewable feedstock
b. **Gasoline/Ethanol:** conventional and reformulated gasoline, including blends of 10% ethanol (E10) and 85% ethanol (E85)
c. **Liquefied Petroleum Gas (LPG):** also known as LP Gas, Liquid Propane Gas, and propane
d. **Liquefied Natural Gas (LNG)**
e. **Compressed Natural Gas (CNG)**
f. **Electric:** vehicles exclusively using batter electric power
g. **Hybrid:** vehicles with hybrid electric or hydraulic hybrid powertrains, using either gasoline or diesel

NOTE: Once you check these boxes, the appropriate fuel type tab (along the top of the screen next to the **General Information** tab) will become active.

The third section asks you to determine your short haul split vs. long haul split. This requires you to estimate the percentage of your fleet's operations that are short haul or long haul. A short haul is defined as any haul less than 200 miles; a long haul is defined as any haul in excess of 200 miles. Percentages should be reasonable estimates.

The final section only appears for fleets with a SmartWay Category designation of Less-Than-Truckload (LTL). If this section appears on the **General Information** screen, you must provide estimates for the average weight per LTL load (in pounds), and the average number of loads per LTL truck trip. Calculate these averages for just your LTL operations.

Once you have completed all of the **General Information** screen items, you can select the

button to make sure you have filled out everything on this screen properly. Any data entry gaps or inconsistencies will be identified by the Tool.

STEPS FOR COMPLETING "GENERAL INFORMATION" SCREEN

1. Enter your fleet's percentage of operation in the U.S. and Canada.
    - Inputting a value in one cell automatically populates the other cell to add up to 100.
2. 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 **General Information** tab) will become active.
3. Enter your percentage short-haul vs. long-haul operations.
    - Inputting a value in one cell automatically populates the other cell to add up to 100.
4. **FOR LTL FLEETS ONLY –** Enter the average load weight and average number of loads per truck for the LTL portion of your operatiopns.
5. Select the

button to make sure you have filled out everything on this screen properly.
6. Select

or select the next available fuel tab at the top to begin entering fuel and activity data for this fleet.

FUEL SECTION: "ENGINE MODEL YEAR & CLASS" OVERVIEW

This section looks at truck classes and engine model years. Under each fuel-type tab (Diesel, Gasoline, LPG, LNG, CNG, Electric, and Hybrid) there are as many as three screens requiring data inputs:

1. The **Engine Model Year & Class**[5] screen,
2. The **Activity Information** screen, and
3. The **PM Reduction** screen will appear for diesel vehicles <u>if</u> you specify diesel trucks with pre-2007 engines on the **Engine Model Year & Class** screen.

The **Diesel Fuel Types** Screen is shown below—this screen defaults to the first available sub-tab, the **Engine Model Year & Class** screen:

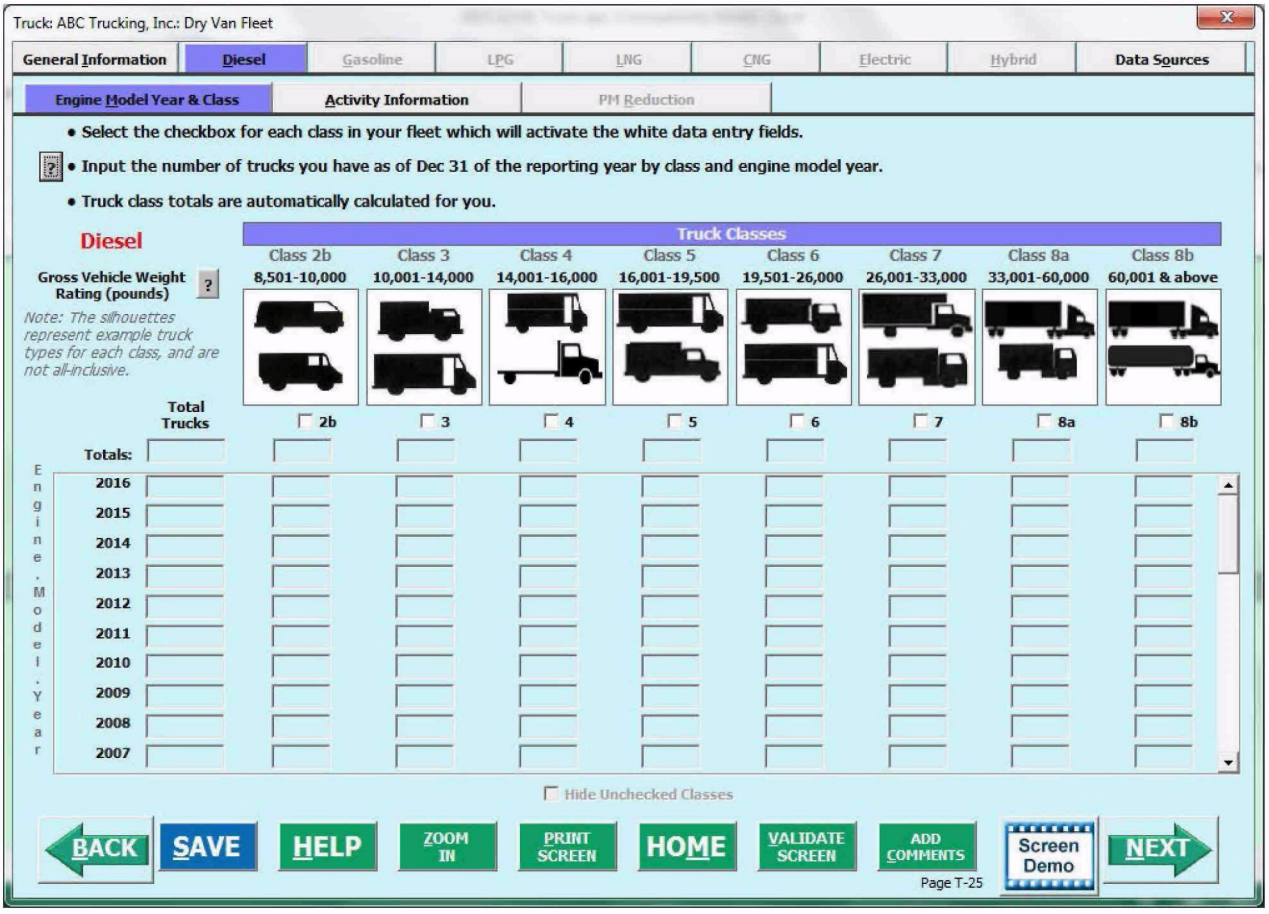


Figure 44: Engine Model Year & Class Screen

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

[5] For Electric, this screen is known as the "Motor Model Year and Class" Screen.

The first step on the Engine Model Year and Class tab is to identify the vehicles classes you have represented in this fleet. Begin by selecting the boxes at the top for each of the truck classes you operate in this fleet (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.

Next you must enter the number of vehicles you have in each class, specifying the corresponding **engine model years** (rather than the vehicle (tractor) model years). Use the scroll bar to the right if you need to enter information for model years earlier than 2007.

Totals for each truck class are calculated automatically for you and displayed along the top row. Totals by model year are shown in the left-hand column.

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

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

*****NOTE: The following guidance will use the Diesel Fuel sections as an example. Similar procedures are followed for all other fuel types.*****

1. Select the boxes at the top (i.e., 2b, 3, 4, 5, 6, 7, 8a, 8b) for each of the truck classes you operate in this fleet.
2. Input the number of vehicles you have in each class, specifying the corresponding **engine model years** (rather than the tractor model years). Use the scroll bar to the right if you need to enter information for older model years.
3. Check the box at the bottom of the screen to hide any unused truck classes if you wish.
4. Select NEXT or select the **Activity Information** tab at top of the screen to proceed to the next section. Before leaving the **Engine Model Year & Class** screen, you will be prompted to confirm the accuracy of your model year and truck class selections (**Figure 45**). You may review previous years' selections by selecting the **Year-to-Year Comparison Report** on the **Home** screen.

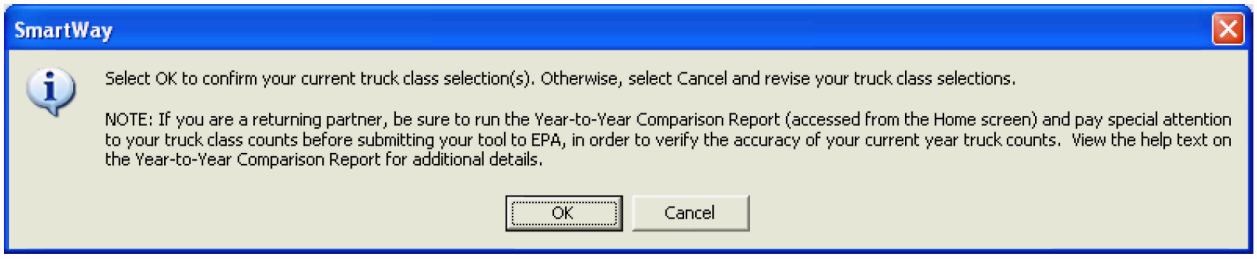


Figure 45: Confirmation of Engine Model Year and Truck Class Selections

NOTE: Class 8a trucks are often mistaken for Class 8bs. If you select to enter data for Class 8a trucks you will be asked to confirm your selection. Please refer to the Gross Vehicle Weight Rating Definitions at the top of the screen before proceeding.

FUEL SECTION: "ACTIVITY INFORMATION" SCREEN OVERVIEW

The **Activity Information** screen is shown below:

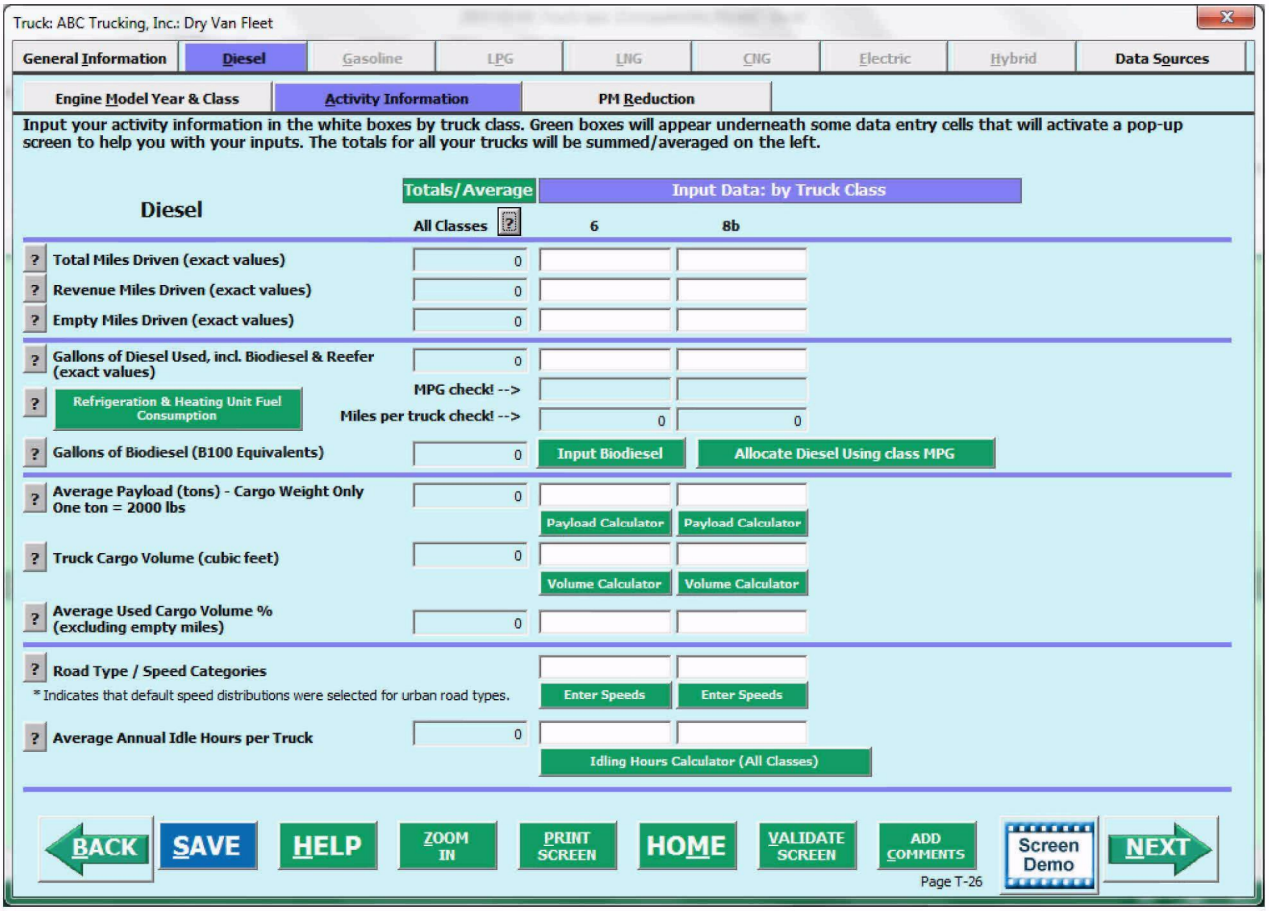


Figure 46: Diesel Vehicle Activity Information Screen

The text at the top left-hand corner of this screen indicates the fuel type for which you are entering data. You will need to enter data for each fuel type you use within your fleet under separate screens, including:

- diesel and biodiesel, entered under the same tab
- gasoline and ethanol, entered under the same tab
- LPG, LNG, CNG, hybrids, and electric trucks each entered under separate tabs

If you selected more than one fuel type for this fleet on the **General Information** screen, then you will also need to enter data on the other fuel type tabs. 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!******

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

- **Totals/Average** section (with a green header), and
- **By Truck Class** section (with a blue header).

The Totals/Average data indicates the sum or average (as appropriate) for the fleet across all truck classes you have selected on the **Engine Model Year and Class** screen. This value is automatically tallied when you enter data in the "By Truck Class" fields (the blue header section.)

MAIN FUEL ACTIVITY DATA POINTS OVERVIEW

The first five activity data points are:

- **Total Miles Driven (exact values):** all miles driven collectively by all fleet vehicles in a specific class.
- **Revenue Miles Driven (exact values): all** miles that were charged to a customer account.
    - **NOTE**: If you have a private fleet 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 may be used determine an adjustment factor for shippers' carbon inventories.[6]
- **Empty Miles Driven (exact values):** the total number of empty miles traveled by your fleet.
    - Empty is defined as zero cargo.
    - **NOTE:** If you enter zero (0) empty miles, you **must** provide text explaining why you have no empty backhauls by double-clicking on the cell.
    - The number of empty miles will not affect your 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 Diesel Used, including biodiesel and reefer (exact values)**: all gallons of fuel used by your fleet 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. Refrigeration (reefer) gallons must also be reported separately.
    - It does NOT include gallons used in heating buildings, forklifts, or other non-transportation sources.
    - **NOTE: If total gallons of diesel fuel used are known for the fleet but not by class, the Fuel Allocator Worksheet will help you apportion your total fuel use into class categories.**
- **OPTIONAL: Gallons of Biodiesel or Gallons of Ethanol (for diesel and gasoline fuel tabs, respectively):** the B100 equivalents for biodiesel or the E100 equivalents for ethanol used by the fleet

It should be noted here that all values for mileage, gallons, and other inputs should reflect EXACT values rather than rounded estimates. Failure to provide exact values will trigger warnings upon validation, reminding you to input exact values.

[6] 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 value will be calculated on an industry basis, and will not affect individual carriers.

For each data activity point, you must specify a data source. Please see page 90 for details.

You can enter the requested activity information for the reporting period for each truck class in the white empty cells to the right, under the blue heading "By Truck Class."

Steps for Completing the Main Fuel Data Points on the "Activity Information" Screen

1) Enter the exact value for total miles driven collectively by this fleet by vehicle class. Include all out-of-route, positioning, empty, and other miles driven.
2) Enter the exact value for the revenue miles—the number of miles your fleet drove that were charged to a customer account.
3) Enter the exact value for the total number of empty miles traveled by your fleet.
4) Enter the exact value for all the gallons of fuel used by your fleet in the **past 12-month reporting period**, including any gallons with biofuels (biodiesel for diesel vehicles, ethanol for gasoline vehicles).
5) If you specified any use of refrigerated body types under the **Fleet Description** section, the Refrigeration & Heating Unit Fuel Consumption button will appear underneath the Gallons of Fuel Used section. Select this button and provide your best estimate of your refrigerated fuel use in gallons for each truck class. Diesel, LPG, and electric trucks are assumed to use diesel reefers, gasoline trucks to use gasoline reefers, and CNG/LNG trucks to use CNG reefers. Enter zero for any truck classes/fuel types that do not utilize reefer units. If you do not know your reefer fuel use at the truck class level you may enter a total value which will be distributed across your truck classes proportional to your vehicle fuel consumption entries.

   Figure 47 below presents the Reefer Fuel Data Entry screen. Enter your reefer fuel consumption in gallons for each vehicle class if possible. If one or more vehicle classes do not include reefers, enter 0 gallons.

   If you do not know your reefer fuel consumption at the vehicle class level check the box and enter your total reefer fuel consumption in the Total cell. This total value will then be allocated across all vehicle classes proportional to the total vehicle class fuel consumption amounts.

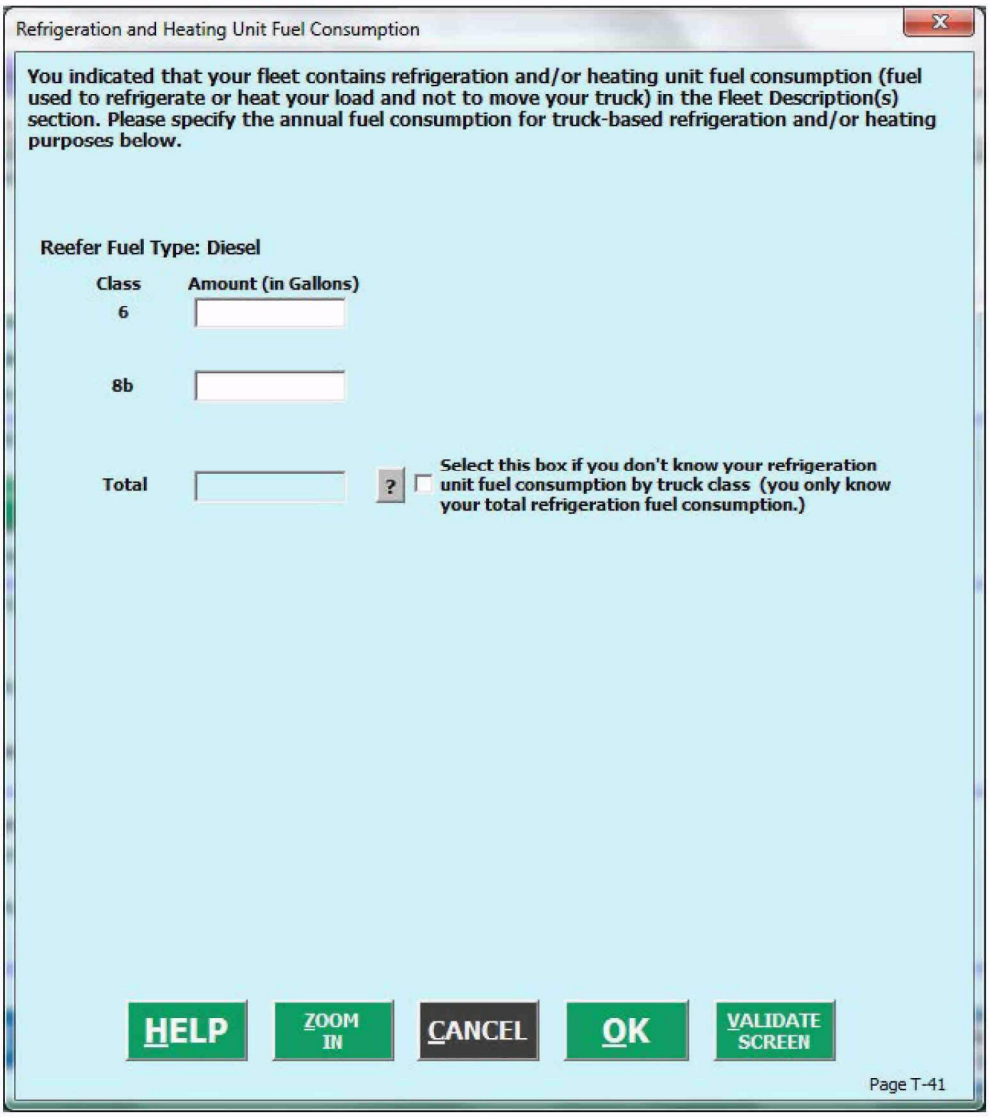


Figure 47: Example Refrigeration Unit Fuel Consumption Data Entry Screen

"FUEL ALLOCATOR WORKSHEET" OVERVIEW

The Truck Carrier Tool asks you to enter Gallons of Diesel Used by truck class. This information may be entered directly if you have it. However, if you do not, but you do know total fuel use and MPG by truck class, the Fuel Allocator will assist you in apportioning your fuel use across truck classes.

To use the Fuel Allocator Worksheet, you will select the **Allocate Diesel Using class MPG** button on the **Activity Information** screen beneath the data entry cells for the "Gallons of Diesel Used, incl. Biodiesel & Reefer (exact values)" section.

Figure 48 shows the **Fuel Allocator Worksheet.** Note that you must enter total miles for each truck class on the **Activity Information** screen before you can open this worksheet.

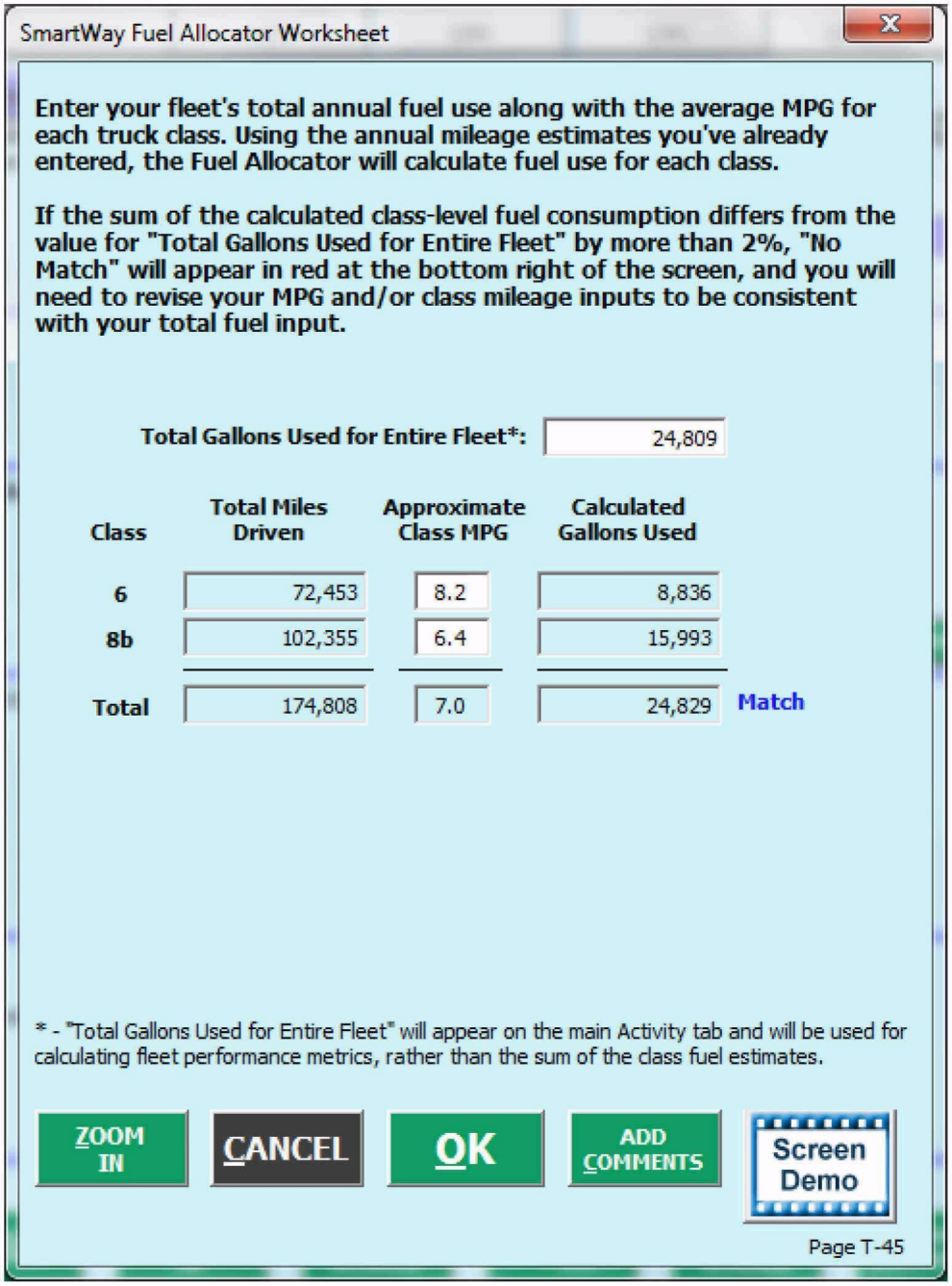


Figure 48: Fuel Allocator Worksheet

The **Fuel Allocator Worksheet** requires you to estimate:

- total fuel consumption for your entire fleet across all vehicle classes, and

- MPG for each truck class (the worksheet for electric vehicles uses miles/kWhr in lieu of MPG).

Only truck classes selected on the **Engine Model Year & Class** screen will be displayed on the **Fuel Allocator Worksheet**. Class-specific fuel consumption levels are estimated using the annual mileage estimates entered on the **Activity Information** screen.

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 go back to the **Activity Information** screen by selecting OK.[7]

Before returning to the **Activity Information** screen, you will see a popup:

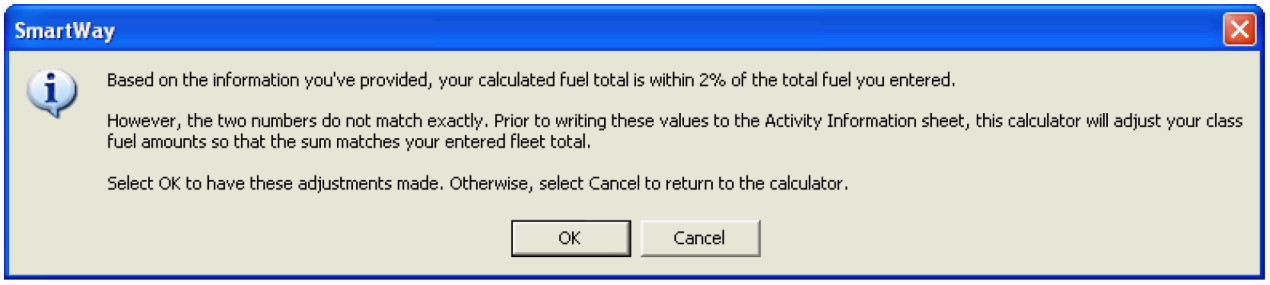


Figure 49: Popup Indicating Fuel Total Match

This popup indicates that the total gallons of diesel you entered and the MPG by truck class that you entered produced a calculated total fuel use that is slightly different. If you select OK, this calculator will adjust the by class fuel amounts to a sum matches your entered fleet total.

If "**No Match**" is indicated, you must adjust your total fuel consumption estimate and/or your class level MPG estimates until a "**Match**" is obtained.

Once you complete the **Fuel Allocator Worksheet**, total gallons will be summed and displayed in the **Totals/Average** column on the **Activity Information** screen.

There are two other sections within the "Gallons of Diesel Used, incl. Biodiesel & Reefer (exact values)" section, MPG Check and Miles per Truck Check, described below.

MPG Check: 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. If, instead, you entered gallons of fuel used by class, the Tool will generate MPG estimates for you. This field is provided as a useful validation check for users. 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.

[7] 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.

Miles per Truck Check: Once Total Miles are entered for a given truck class, this value will be combined with the truck count values entered on the **Engine Model Year and Class** screen to provide a Miles per Truck value, which is displayed below the MPG Check value on the **Activity Information** screen. This field is provided as a useful validation check for users, and is checked by the Tool's validation routines for reasonableness. If the Tool finds an out-of-range miles-per-truck value during its routine validations, the 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.

These two fields do not involve direct data entry; they are populated as a result of Tool calculations and are based on your entries for total miles by truck class and total gallons by truck class (either directly entered or allocated using the **Fuel Allocator Worksheet**).

Steps for Completing the "Fuel Allocator Worksheet"

1. Select the Allocate Diesel Using class MPG button on the **Activity Information** screen.
2. Enter total gallons of diesel for all truck classes.
3. Enter MPG estimates for each truck class.
4. If "Match" appears in blue next to the "Calculated Gallons Used" field, select OK.
5. If "No Match" appears in red next to the "Calculated Gallons Used" field, adjust the MPG values as necessary to get a match, and then select OK.

(OPTIONAL) "BIODIESEL BLEND WORKSHEET" OVERVIEW

If your fleet consumed any amount of biodiesel during the reporting period, you will have access to a Biodiesel Blend Worksheet, shown in **Figure 50**. (A similar worksheet is available for ethanol use under the **Gasoline** tab – see below.)

The **Biodiesel Blend Worksheet** asks you to specify the biodiesel volume used by your fleet 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.

The Truck Carrier Tool will assume that these gallons are allocated proportionally across all vehicle classes (weighted by gallons of diesel used) in order to calculate emissions.

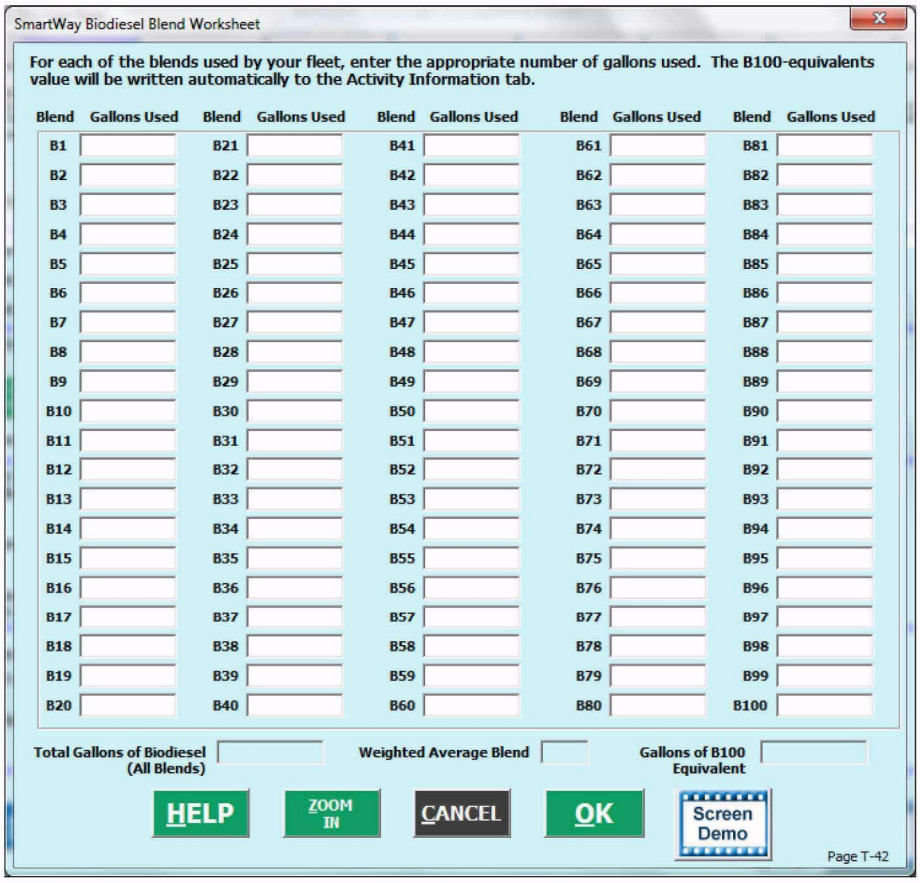


Figure 50: Biodiesel Blend Worksheet

STEPS FOR COMPLETING THE "BIODIESEL BLEND WORKSHEET"

1. If this fleet has used biodiesel during the reporting year, select the **Input Biodiesel** button and specify your biodiesel volumes by blend level in the **Biodiesel Blend Worksheet**.
2. For each of the blends used by your fleet, enter the appropriate number of gallons used.

3. Select **OK**.

(OPTIONAL) "ETHANOL BLEND WORKSHEET" OVERVIEW

If your fleet consumed any amount of ethanol during the reporting period, you can use the **Ethanol Blend Worksheet**, shown in **Figure 51,** to determine your ethanol usage figures.

If you know the volume of ethanol used by your fleet, 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 zero for both values if your fleet does not use one of these blends.)

Alternatively, if you do not know the volume of ethanol used by your fleet, select "**Use national average for ethanol usage (9.05%)**." In either case, the total volume of ethanol at each blend level will be allocated across the different truck classes in your fleet in proportion to the total gallons of gasoline used.

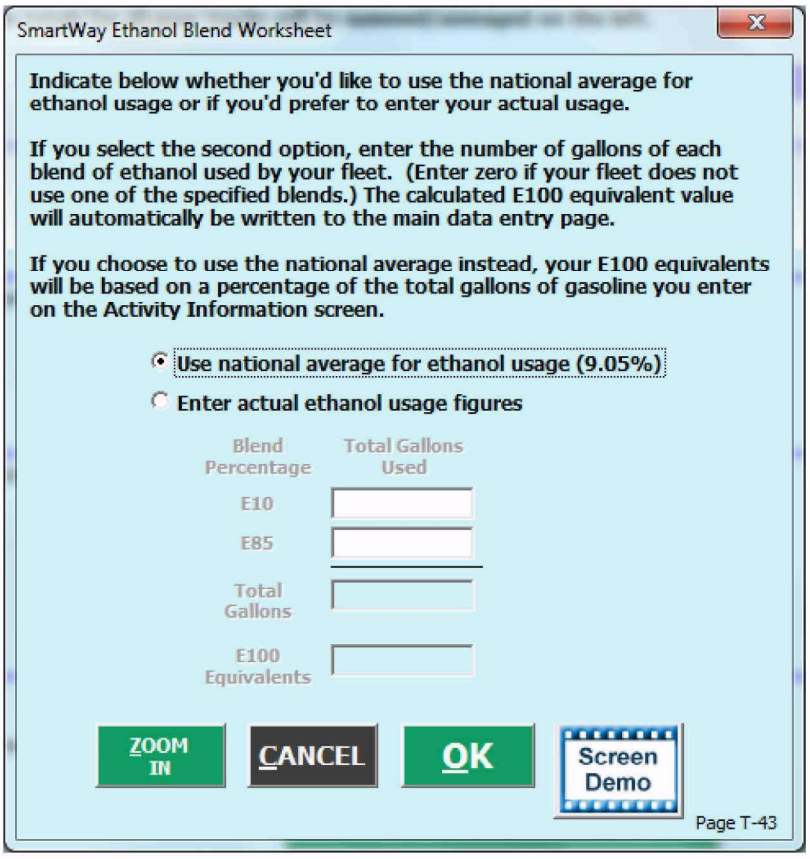


Figure 51: Ethanol Blend Worksheet

STEPS FOR COMPLETING THE "ETHANOL BLEND WORKSHEET "

1. If this fleet has used ethanol, select the **Input Ethanol** button and specify your ethanol volumes by blend level (E10 or E85) in the **Ethanol Blend Worksheet**.
2. For each of the blends used by your fleet, enter the appropriate number of gallons used.
3. Select **OK**.

PAYLOAD AND CAPACITY OVERVIEW ON THE "ACTIVITY INFORMATION" SCREEN

This section of the **Activity Information** screen asks to calculate your average payload by truck class using an internal payload calculator.

Average payload calculations are made on a "by truck class" basis. Within a given truck class, you may have many different body types.

For each body type within a truck class, you will need to choose:

- which of the **four available allocation methods** you will use to distribute your trucks' activity to calculate a weighted average payload value by truck class:
  - # miles by class
  - # trips by class
  - % of operation by class
  - # vehicles by class
- whether you are interested in looking at your payload in **units** of short tons (=2,000 pounds) or in pounds
- whether to either **directly calculate an average payload** for this body type (e.g., using bill of lading data collected by your company) or to select one of seven **average payload ranges** provided in the Tool (which reflect typical industry payload ranges).

The values entered for each body type provide the basis for calculating a weighted average payload for the class as a whole. For example, by specifying the mileage associated with each body type, the respective miles per year will be used to weight your payload estimates to calculate an average by truck class.

Ideally, you should calculate your average payload data by using payload data from your company's bills of lading records. Note that, when calculating average payload, your payload data should represent the average cargo weight per LOADED trip; empty backhauls should be excluded from the calculation.

The **Payload Calculator** for Class 8b trucks is shown as an example below.

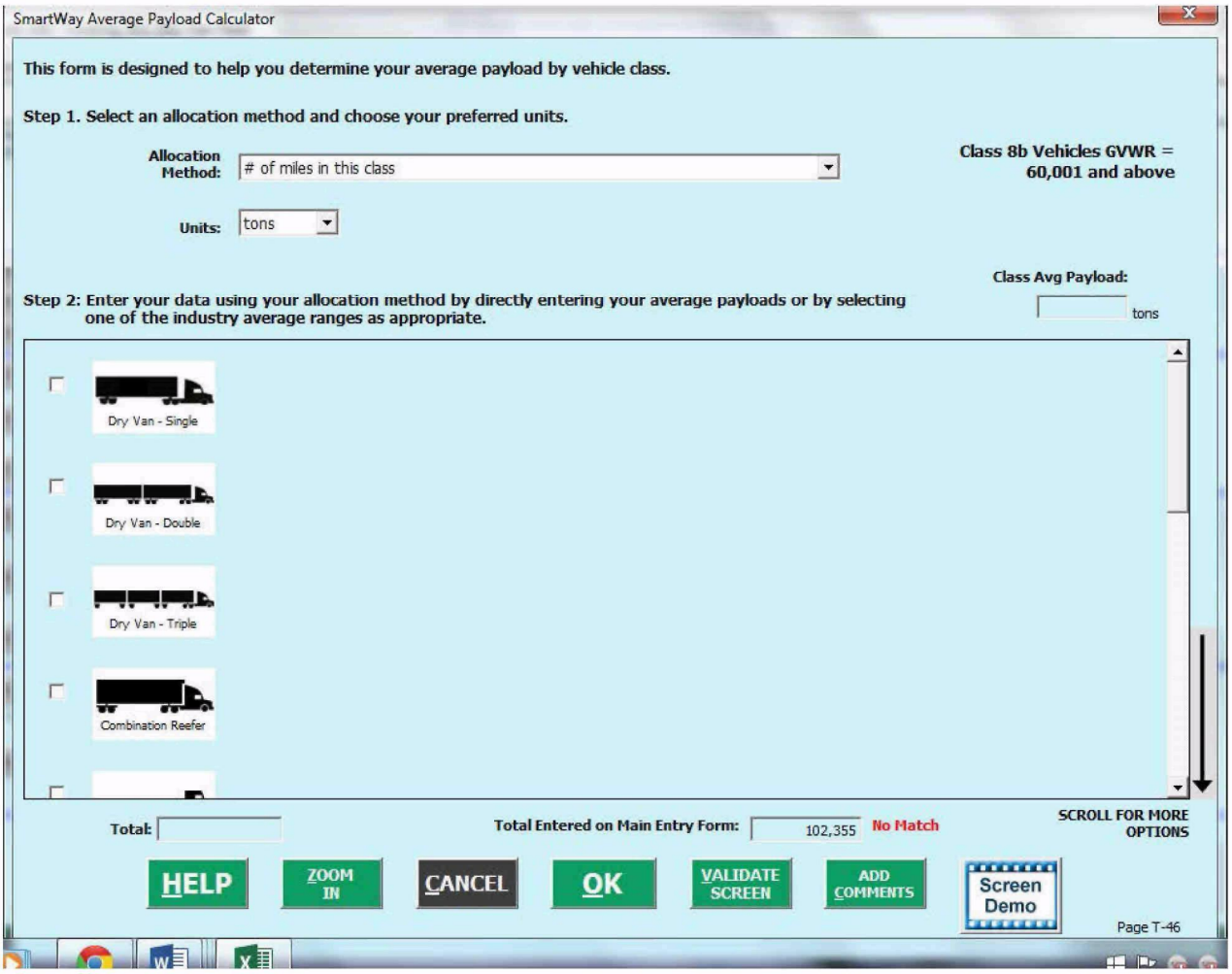


Figure 52: Class 8b Payload Calculator

On this screen, you will be asked to make two selections:

- Allocation Method
- Units

The first choice you will make is the payload allocation method. The method selected will be used to allocate your payloads across multiple truck body types within a given truck class. This allocation allows the Tool to calculate a weighted average payload value by truck class.

There are four payload allocation methods available:

- # miles by class
- # trips by class
- % of operation by class
- # vehicles by class

Next you must choose between either short tons (2,000 pounds) or pounds as your preferred weight metric or "Unit."

Next select the applicable body types for the truck class, specify the payload allocation information for each body type (e.g., number of miles traveled), and the average payload information.

If you do not know the exact average payload for a given truck body type, select from pre-defined ranges (i.e., very low, low, low average, average, high average, high, very high).[8] Use the scroll bar to the right to display other body types.

If Very Low or Very High ranges are selected, the payload value will be highlighted in red, and explanations must be provided in the text box to the right summarizing the reasons for the unusual payload value (e.g., you may explain that a flatbed fleet is regularly used to transport heavy construction equipment).

If you select low or high ranges, the selection will be highlighted in yellow and a warning will appear. Text explanations are optional for low and high ranges.

If an exact value entry falls outside the expected range values (low average – high average), an explanation will be requested.

Figure 53 shows a completed example of the **Average Payload Calculator** worksheet for Class 8b vehicles. (Similar worksheets are provided for each truck class.)

[8] Specific range values were determined based on reported industry payload distributions, and are discussed in detail in the Truck Tool Technical Documentation http://www3.epa.gov/smartway/forpartners/index.htm).

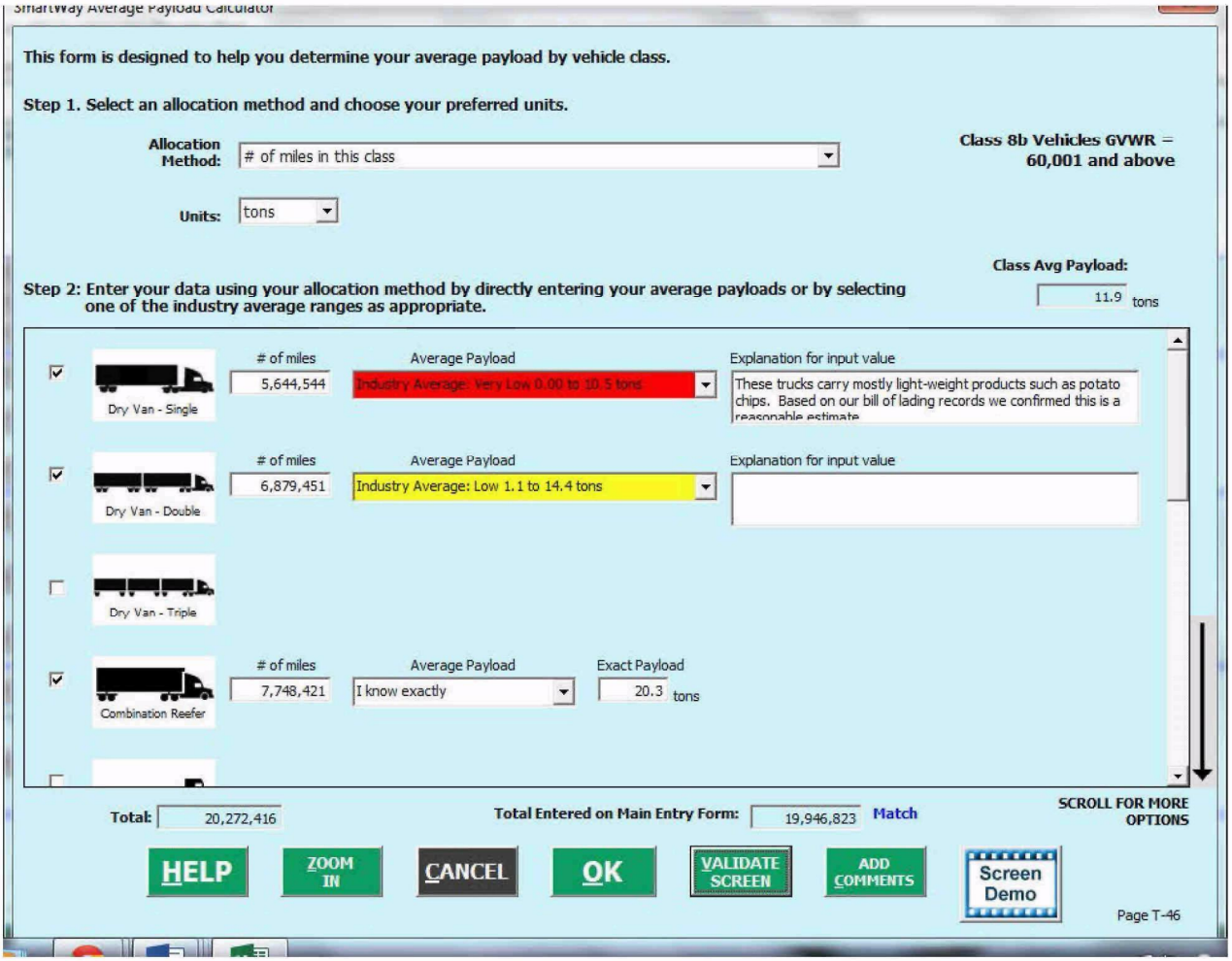


Figure 531: Example Payload Calculator Worksheet – Class 8b Vehicles Data with Explanations

Once the mileage and payload ranges or 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 validation is also performed if "# of "was selected in Step 1 as the allocation method, although in this case the match must be exact. Independent matching is not performed for "# of trips" or "% of operation allocation methods."

If any of the values entered in the **Average Payload Calculator** received Red or Yellow warnings, the weighted class average payload value shown in the **Activity Information** screen will be highlighted in yellow as a reminder.

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

EXAMPLE:

ABC Trucking, Inc. has a fleet with Class 8b trucks. This fleet consists of three body types: dry van single trailer, dry van double trailer, and reefer.

In Step 1 ABC Trucking, Inc. chooses "# of miles by class" as the allocation method and "short tons" as the unit.

ABC Trucking proceeds to Step 2 and selects the checkboxes next to the three body types present in the Class 8b truck fleet (dry van single trailer, dry van double trailer, and reefer).

ABC Trucking, Inc. enters the total number of miles driven with loads (excluding empty miles) for each body type.

Next, the company selects the Average Payload from the drop-down lists.

In the case of the dry vans with single trailers, the Very Low range is selected. Because this is considered an unusual result, the Tool highlights this payload, in red and ABC Trucking, Inc. MUST enter an explanation to proceed.

In the case of the dry vans with double trailers, the Low range is selected. Because this is considered somewhat unusual, the Tool highlights this payload in yellow, and ABC Trucking, Inc. has the OPTION of entering an explanation to proceed.

In the case of the combination reefers, ABC Trucking, Inc. knows EXACTLY what the average payload value is and enters it in the field provided.

Steps for Completing the Payload Section on the "Activity Information" Screen

1. Enter your average payloads into the Tool for each truck class by selecting the Payload Calculator button.
2. Under Step 1, select your activity Allocation Method.
3. Select your Units, from the drop-down.
4. Under Step 2 select the box(es) next to the body types used in this Truck Class.
5. For each body type selected, enter the activity associated with this body type.
6. For each body type selected, use the drop-down to select a range OR enter the exact payload if available. Make sure to include any pallet and packaging weight in your payload estimates.
7. Validate the screen to determine if there are any errors to correct; if yes, correct the errors and/or enter comments using the **Add Comments** button to explain your data inputs.
8. Select the OK button to perform a final validation check and return to the **Activity Information** screen.

AVERAGE TRUCK CARGO CAPACITY VOLUME (CUBIC FEET) WORKSHEET OVERVIEW ON THE "ACTIVITY INFORMATION" SCREEN

Cargo capacity volume refers to the total cargo-carrying capacity of your vehicles, not the utilized space on the vehicles.

Volumes are specific to each major body type/configuration, and can be expressed in cubic feet or twenty-foot equivalent units (TEU).

The volume calculator worksheets for truck classes 2b through 7 follow the same format as the average payload calculators, with various body type selections available.

The volume calculator worksheet for classes 8a and 8b reflect a range of different, standard trailer and container configurations. **Figure 54** shows an example worksheet for Class 8b vehicles.

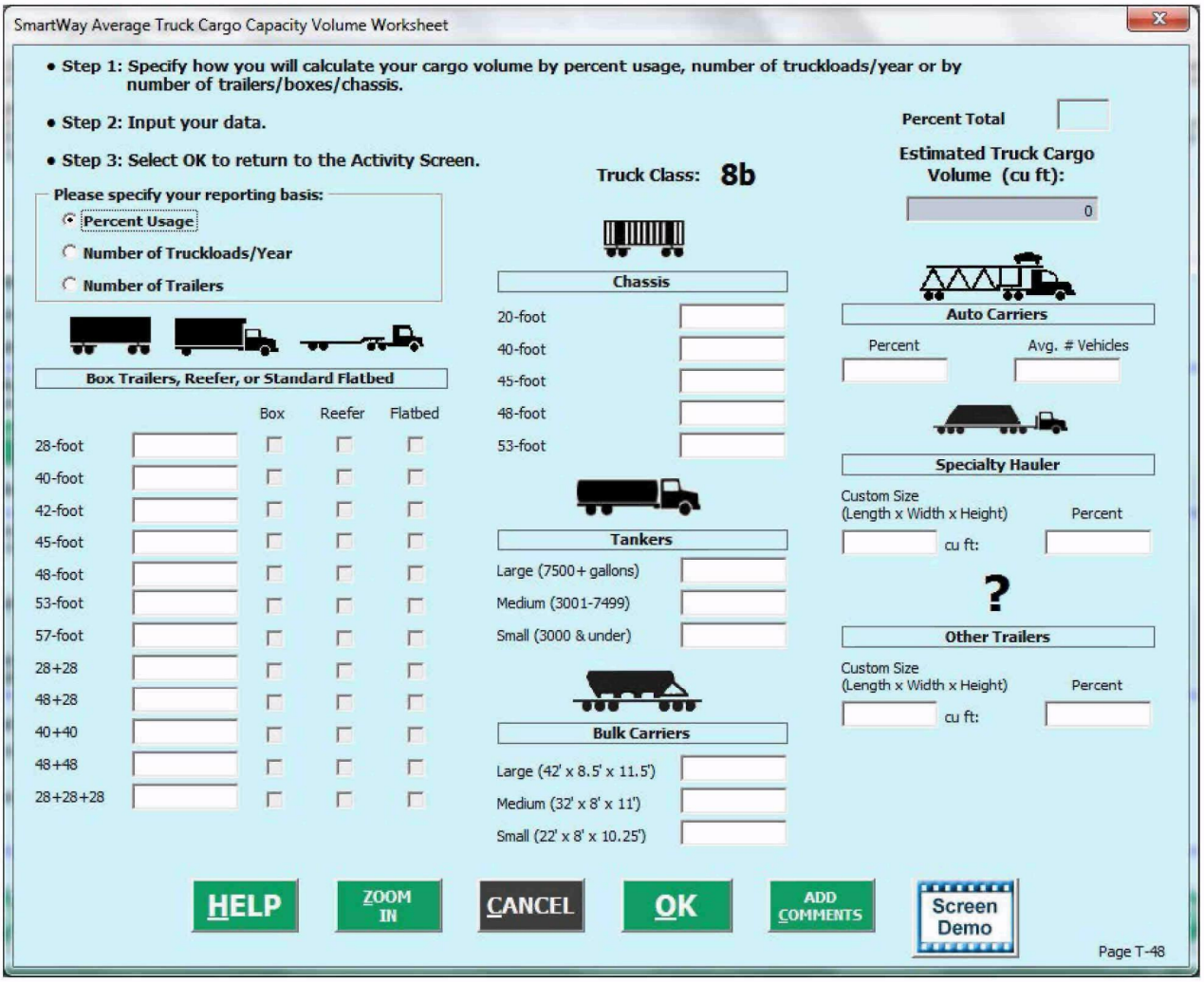


Figure 54: Screenshot of Average Cargo Capacity Volume Worksheet

First you must specify your reporting basis from the three available choices (Percent Use, Number of Truckloads per year, Number of Trailers). Next you will specify the relative distribution of your trailer/container sizes for your truck class as a whole.

If you select "Percent Usage" as your reporting basis, the values entered on this screen must sum to 100. A running total is provided on the upper right of the screen.

If you select "Box Trailers, Reefers, or Standard Flatbed" trailers, enter the appropriate number on the left, and then specify which of these three categories you operate using one or more of the checkboxes to the right.

If you use Specialty Haulers or "Other" trailer types not specified, include both the average volume of the trailers in cubic feet under "Custom Size" (length x width x height), as well as the reporting basis value. These selections include drop-deck flatbeds, low-boys, articulated/multi-trailers and any other configurations not listed separately.

Once complete, the estimated average cargo capacity volume weighted across all trailer/container types will be displayed in the upper right of the screen in cubic feet. This value will be written to the **Activity Information** screen for the specific truck class.

Make sure trailer/container type selections are consistent with the body types specified in the Payload Calculator and Fleet Characterization screens; inconsistencies will be flagged during validation.

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

Steps for Completing Average Cargo Capacity Volume (cubic feet) Worksheet on the "Activity Information" Screen

1. Select the Volume Calculator button to open the **Cargo Capacity Volume Calculator** screen.
2. Select one of the three reporting basis options using the radio check boxes.
3. Enter the requested metrics for the trailers, containers, tankers, bulk carrier, specialty haulers or other trailers used in this truck class.
4. Select OK to return to the **Activity Information** Screen.

AVERAGE USED CARGO VOLUME PERCENT (%)SECTION OVERVIEW ON THE "ACTIVITY INFORMATION" SCREEN

Average Used Cargo Volume Percent refers to the percentage of trailer capacity that is used for all hauls in a given fleet.

Average Used Cargo Volume Percent applies *only* to loaded (non-empty) miles. For most carriers, this will reflect your loaded volumetric fill rate.

However, there are a few exceptions:

- LTL carriers should estimate the weighted-average fill rate over the span of operations.
- Flatbed haulers should estimate fill rate based on deck area covered.
- Auto carriers should estimate based on percent of car slots filled.
- Drayage operations may select the Use Industry Average button, in which case the industry average used cargo volume percent value will be auto-populated for you.

*****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 miles per class) and displayed in the **Totals/Average** column.

STEPS FOR COMPLETING THE AVERAGE USED CARGO VOLUME PERCENT SECTION ON THE "ACTIVITY INFORMATION" SCREEN

1. Enter your average used cargo volume percent for each truck class.
2. Fleets with a Drayage SmartWay Category designation may select industry average percentages by selecting the Use Industry Average button.

ROAD TYPE/SPEED CATEGORY SECTION OVERVIEW ON THE "ACTIVITY INFORMATION" SCREEN

"Road Type/Speed Category" is a ratio of total mileage by class allocated to highway/rural driving, and to urban driving less than 25 mph, 25-50 mph, and over 50 mph.

Data for completing this screen should be available from your vehicles' electronic control modules (ECM).

NOTE: 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,[9] adjusted for the Highway/Rural Driving percentage specified.

(For further details, see the Truck Carrier Tool Technical Documentation available at http://www3.epa.gov/smartway/forpartners/index.htm)

STEPS FOR COMPLETING THE ROAD TYPE / SPEED CATEGORY SECTION ON THE "ACTIVITY INFORMATION" SCREEN

1. For each truck class, select Enter Speeds to open the ""Road Type/Speed Categories" box.
2. Enter the requested metrics for Highway or Rural Driving and Urban Driving for each of the speeds listed (if applicable). If you only know Highway or Rural driving, you can select the box next to "Populate the urban driving fields with default values" to complete the screen.
3. Select OK to return to the **Activity Information** screen.

[9] NOx and PM emission rates for diesel, gasoline and E10 vehicles are obtained from EPA's MOVES 2014a emissions model, expressed in grams/mile. Emission rates for LPG, CNG, and LNG are adjusted from gasoline values. Hybrid vehicle emissions are set equal to their corresponding conventional gasoline and diesel counterparts, less the idle emissions component. Finally, electric vehicle CO_2, NOx and PM emission rates are based on national average electricity generation unit estimates (in grams per kWhr). See the Truck Tool Technical Documentation for additional details on emission rate estimation.

AVERAGE ANNUAL IDLE HOURS PER TRUCK SECTION OVERVIEW ON THE "ACTIVITY INFORMATION" SCREEN

The **Average Annual Idle Hours per Truck**[10] is calculated using the **Idle Hours Calculator.** To calculate idling hours, you will need to enter the number of hours your trucks idle per truck per day on average, along with the average number of days each truck is in service, on average, per year.

Figure 55 shows the **Idle Hours Calculator** screen.

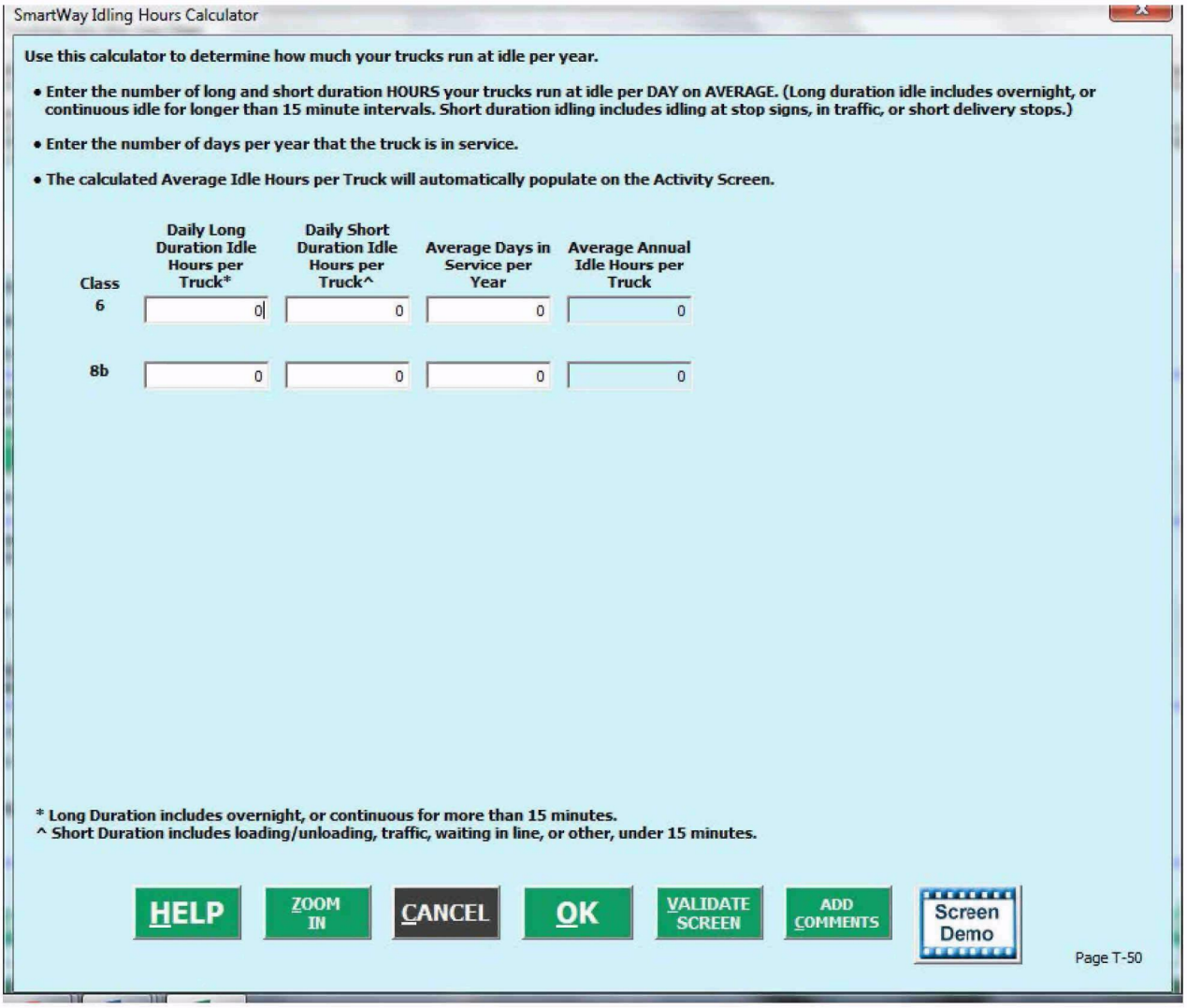


Figure 55: Screenshot of Blank Idle Hours Calculator

Separate values should be input for short-duration (less than 15 consecutive minutes) and long-duration (greater than 15 minutes) idling.[11] After you have entered long and short duration idling hours and

[10] Idle hours are not applicable to hybrid or electric trucks, so the Idle Hour Calculator is not provided on those screens.

[11] NOx and PM emission rates are different for short and long-duration idling, reflecting the varying engine loads and operating temperatures for these events. The SmartWay emission calculations distinguish between these

average days in service for each truck class, and the calculator will present 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 **Totals/Average** column.

Steps for Completing the Average Annual Idle Hours per Truck Section on the "Activity Information" Screen

1. Select the Idling Hours Calculator (All Classes) button to open the Idle Hours Calculator.
2. Enter daily long-duration idling hours per truck, daily short-duration idle hours per truck, and average days in service per year for each vehicle class represented in this fleet.
3. Select OK to return to the **Activity Information** Screen.
4. You have now completed the **Activity Information** Screen for this fuel type.
5. Select the VALIDATE SCREEN button to verify that you have completed the screen properly.
6. After completing the **Activity Information** screen, if your fleet includes 2006 or older diesel engines select the **PM Reduction** tab at the top of the screen to proceed to the next section.

events for Class 8b trucks using MOVES model outputs, although different emission factors may be integrated in future versions of the model for all truck classes.

"PM REDUCTION" SCREEN OVERVIEW

The PM Reduction screen is for fleets that have installed retrofit equipment on pre-2007 engines.

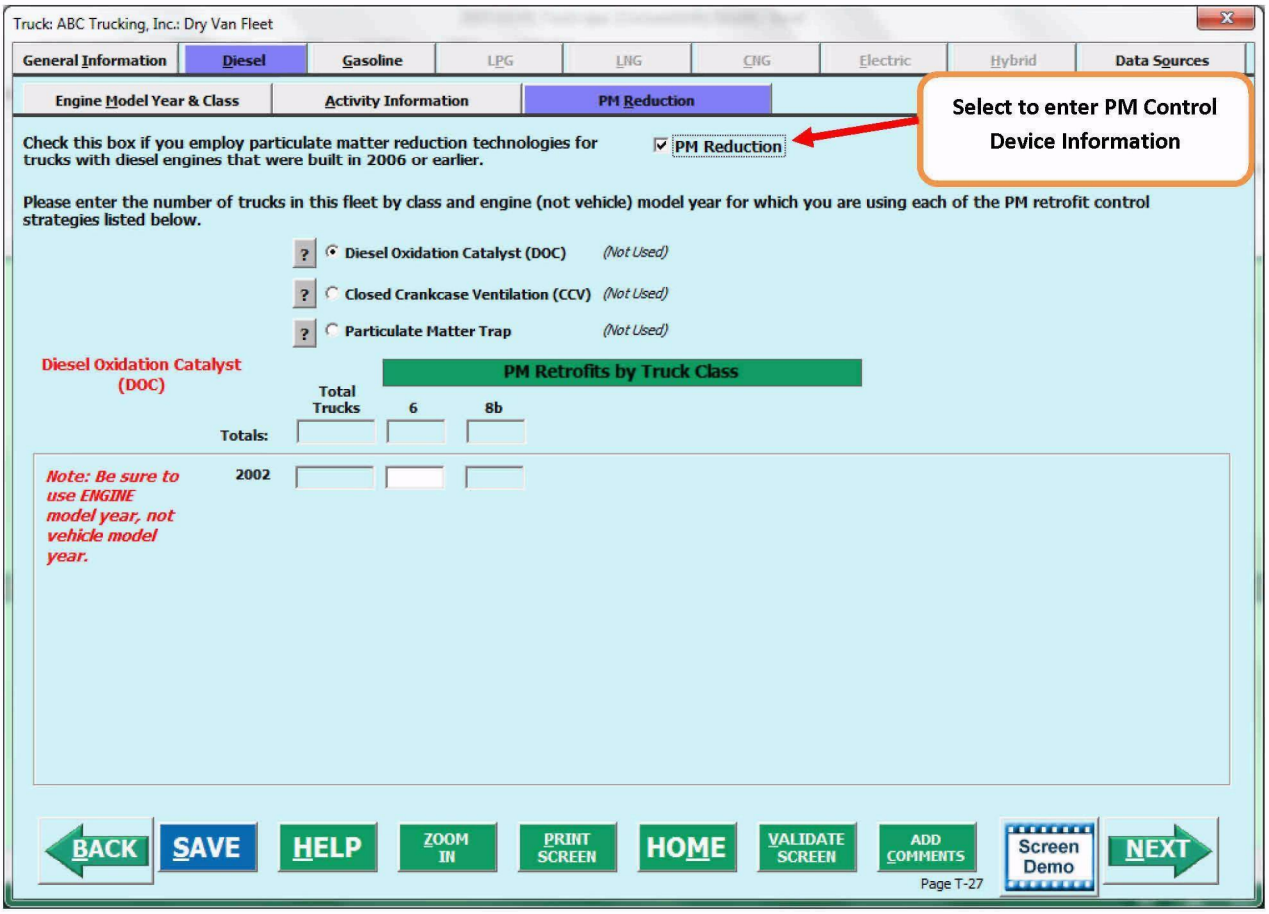


Figure 56: Diesel Vehicles PM Reduction Screen

Select the "PM Reduction" box at the top of the screen if your fleet employs particulate matter reduction technologies on these engines. If your fleet does not employ such devices you may select to proceed.

Next select the appropriate radio button for the type of device (DOC, CCV, or PM trap) you have used for your fleet. You are then asked to enter the number of trucks equipped with the device by engine (not vehicle) model year.

To enter data for multiple devices, select the radio button for the next type of device after completing data entry for the initial device, and fill out the new blank fields that appear.

Totals for any given model year cannot exceed the totals specified on the Engine 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 Engine Model Year & Class screen.**

Steps for Completing the "PM Reduction" Screen

1. Select the "PM Reduction" box at the top of the screen if your fleet employs particulate matter reduction technologies.
2. Select the radio button next to a device (DOC, CCV, or PM trap) you have used for your fleet.
3. Enter the number of trucks equipped with the device by engine (not vehicle) model year.
4. If other devices have been used with this fleet, select the radio box(es) next to each device and enter the number of trucks equipped with the device by engine (not vehicle) model year.
5. When done, select VALIDATE SCREEN to make sure you have filled out everything properly on this screen.
6. Select the HOME button to return to the **Home** screen.

Next Steps

*** if your fleet includes 2006 or older diesel engines select the **PM Reduction** tab at the top of the screen to proceed to the next section.
Instructions for data entry are provided above this box. ***

If you have finished entering 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 NEXT button to proceed to the Data Sources screen.

REMEMBER:

****** If additional fuel types are represented in this fleet,***
you must complete the Engine Model Year & Class and Activity Information screens for each of the fuel types you operate.

Select the tab for the next fuel type and complete the *Engine Model Year & Class and Activity Information screens* as indicated above—the steps will be the same or similar to those for the Diesel Tab. ***Do NOT move on if you have not completed the data input for each of your fuel types.******

Once finished entering data for all of your fuel types, including the information on the Data Sources screen, select the HOME button to return to the Home screen and follow the instructions to submit your Tool to EPA.

FUEL SECTION: DATA SOURCE SCREEN OVERVIEW

Once you have completed entering the activity data for all fuel types you must proceed to the **Data Sources** screen, shown below.

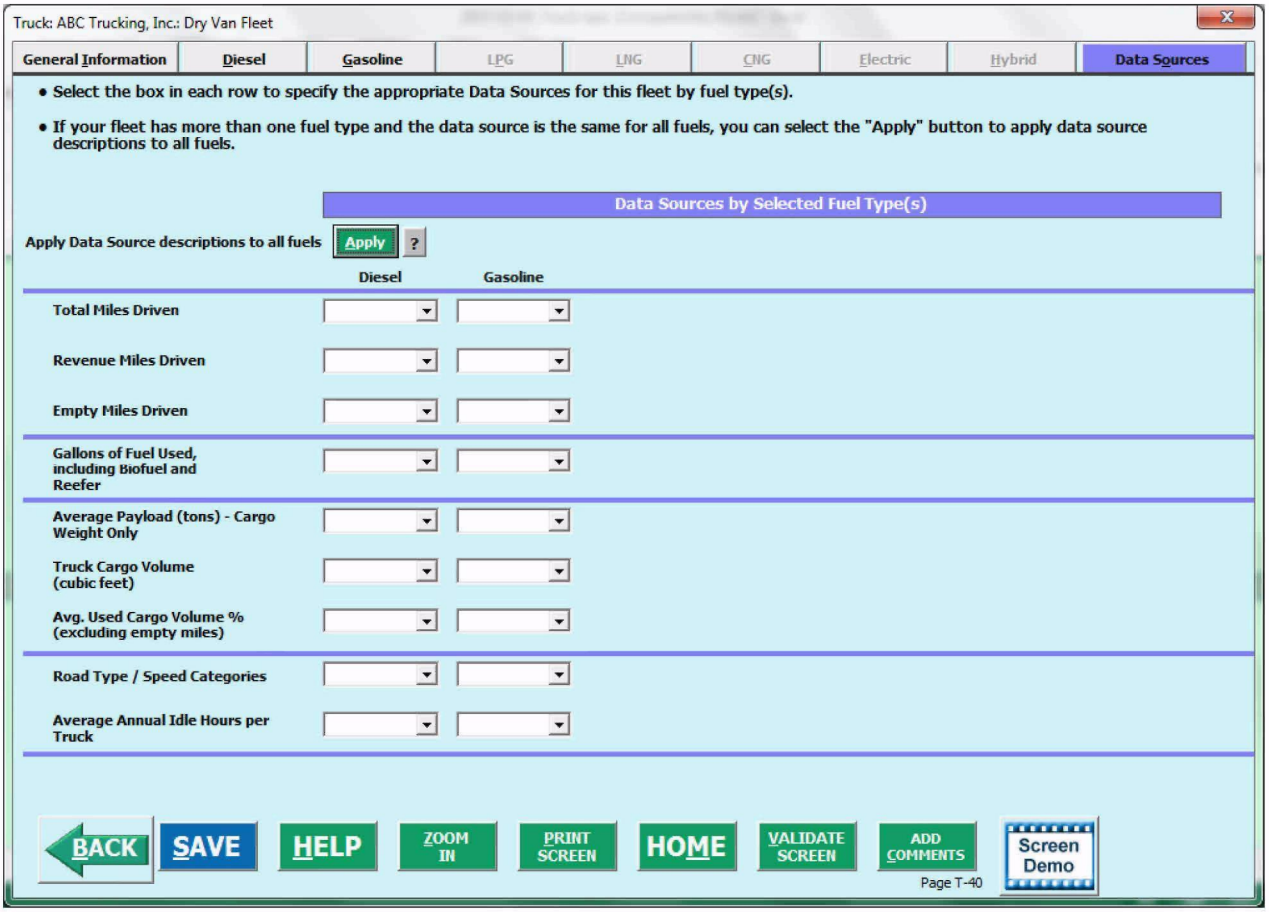


Figure 57: Data Sources Screen

This screen displays one column of drop-down boxes for each fuel type in your fleet. Using the drop-down menus, begin with the Total Miles Driven row and select the appropriate Data Source and Source Details option. After selecting from the Data Source and Source Detail drop-down menus, you may be required to provide additional information regarding the way you collected your data and associated calculation methods, as appropriate. You should provide enough detail to confirm data validity and reasonableness. Repeat the process for each data element for the first fuel type.

If you have multiple fuel types for this fleet repeat the process until all data sources have been specified.

If your data sources are the same for all fuel types you may select the Apply button and the values selected for your first fuel type will be copied for all other fuel types.

An example Data Source entry screen is shown below, for payload data.

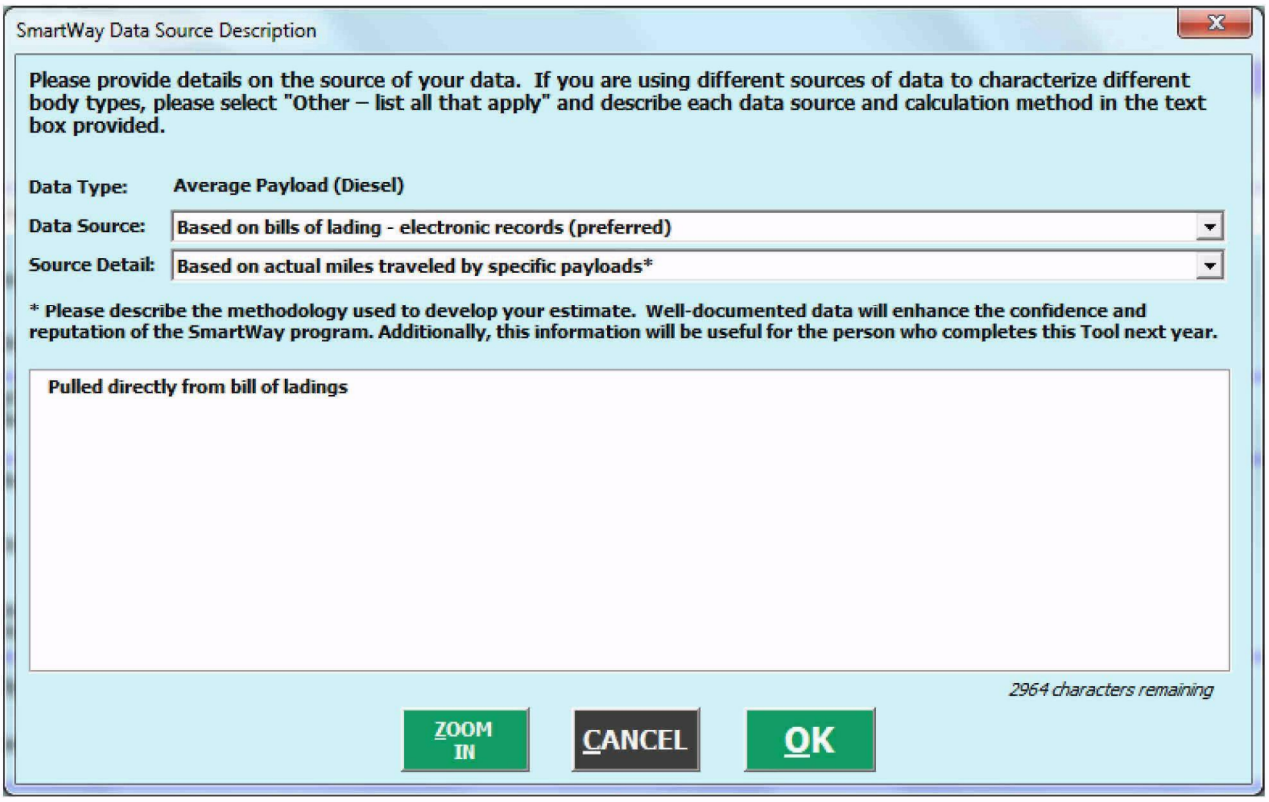


Figure 58: Example Data Source Description Screen

NOTE: Data Source descriptions are assumed to apply across all truck classes and body types for a given fuel type. If you use different sources of data to characterize different truck classes / body types, select the "Other – list all that apply" for the "Data Source" drop-down option.
A helpful reference table with available sources is included in Appendix A.

When finished, select VALIDATE SCREEN to identify and address potential errors, and then select HOME to return to the **Home** Screen.

Steps for Completing the "Data Sources" Screen

1. Click on the cell of interest to open the **Data Source Description** screen.
2. Use the first drop-down menu to select the Data Source category most appropriate the data field. Select "Other" if there is no reasonable match, or if you used multiple data sources to characterize the different truck classes and/or body types within the fleet.
3. Use the second drop-down menu to select the most appropriate Source Details category.
4. If prompted, enter information regarding the methodology and assumptions you used to estimate your data in the text box at the bottom of the screen.
5. Select OK to return to the **Data Source Description** screen.

Validating Your Data

The Truck Carrier Tool has validation checks 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 data entry screens throughout the Tool. Critical checks are made regarding calculated miles per gallon (by class), reefer fuel consumption, annual miles per truck, and a number of other inputs, to help ensure the reasonableness and quality of Partner data.

In most instances the validation ranges are based on Truck Partner data distributions from the 2011 calendar year. (Refer to the **Truck Carrier Tool Technical Documentation** (found on the website at http://www3.epa.gov/smartway/forpartners/index.htm) for a detailed discussion of all validation criteria used within the Tool.)

At any time, you can select the VALIDATE SCREEN button at the bottom of the screens to make sure you have filled out everything properly before proceeding to the next screen.

Any time you leave a particular screen, the Tool will automatically perform a *screen* validation.

Any time you return to the Home screen, the Tool will automatically perform a *fleet-level* validation.

If you select the VALIDATE SCREEN button and no potential errors are identified, the following message will be displayed. Select OK to proceed.

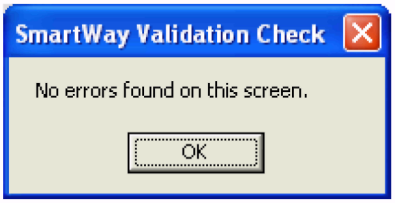


Figure 59: Validation Check Notification – No Errors

If missing or potentially erroneous inputs are identified, you will see the following message (**Figure 60**).

Select **Yes** to see a complete list of validation errors/warnings. An example **Validation Check** results screen is provided in **Figure 61**.

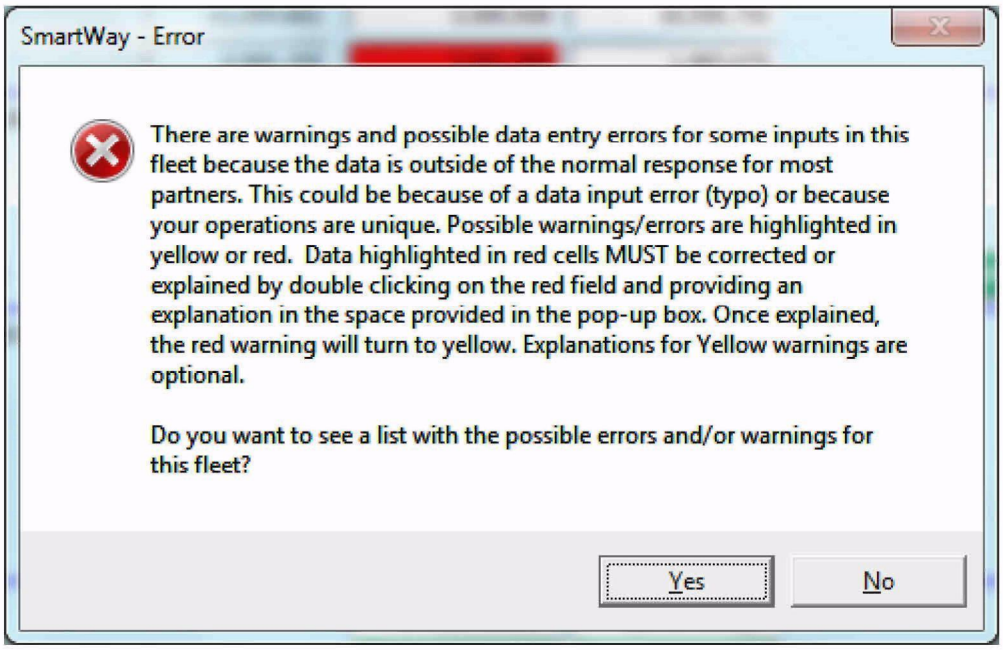


Figure 60: Validation Check Notification – with Errors/Warnings

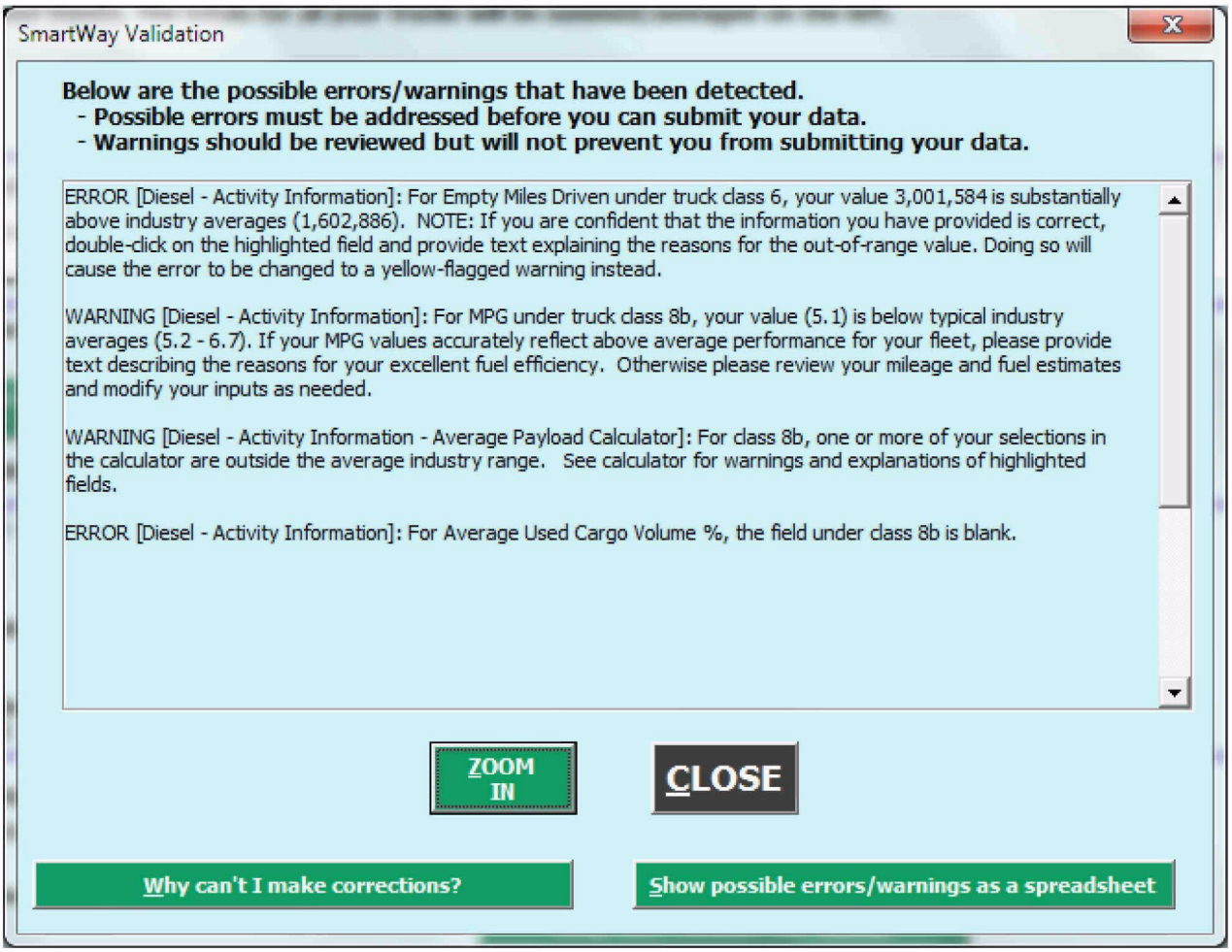


Figure 61: Validation Check Screen – Example Results

The

and

buttons at the bottom of this 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 payload range warning, and one for a missing value. Two of the four messages involve errors that must be addressed through modification of the data entry (message #4), or by providing a text justification of the value by double-clicking on the highlighted cell (message #1). Both of these items must be addressed before the Tool may be submitted to EPA. The remaining items (#2 and #3) are listed as warnings, and do 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.

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 62**. 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 VALIDATE SCREEN button again and repeat the procedure described above as necessary.

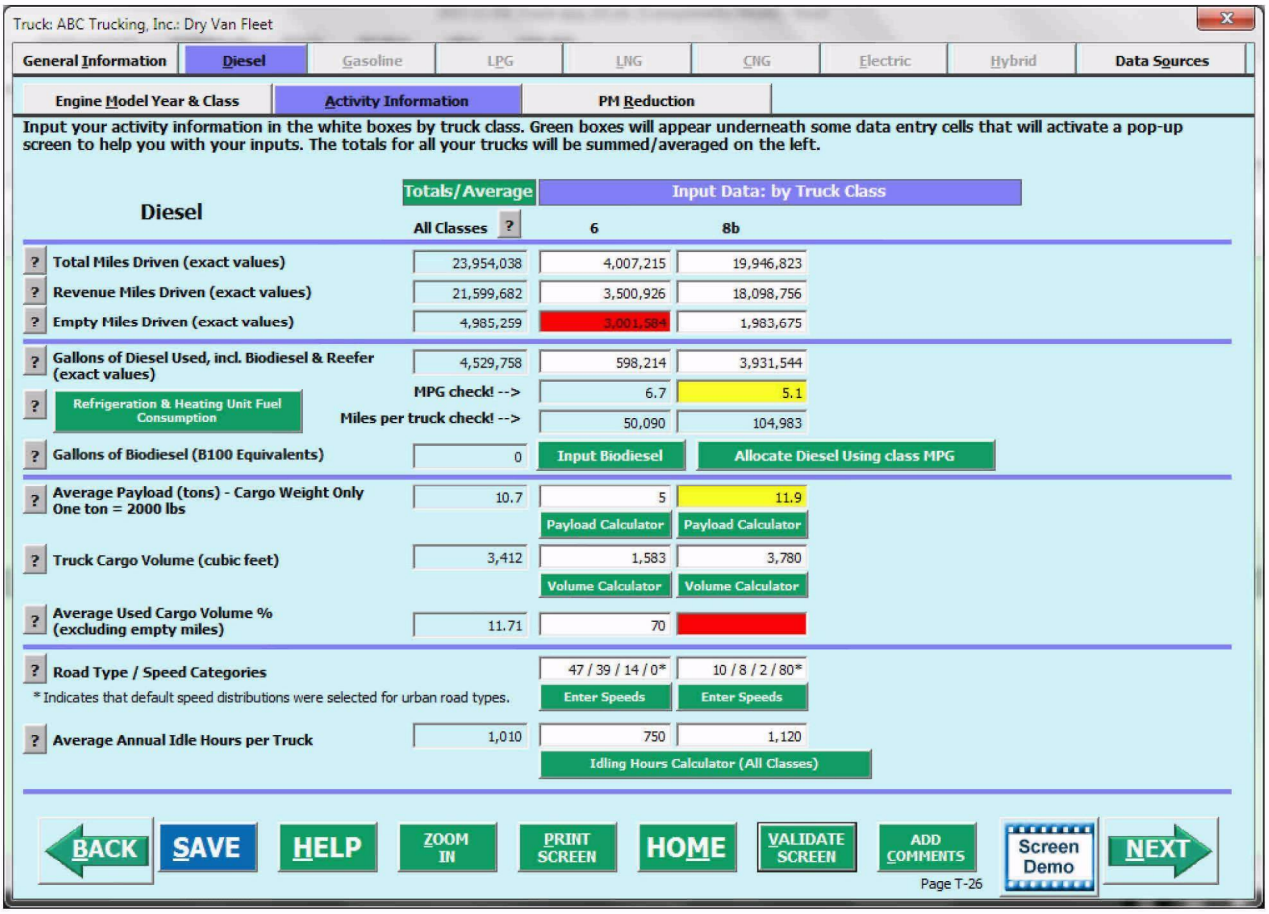


Figure 62: Validation Check – Highlighted Activity Screen

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, etc.).

- If "Total Miles Driven" entries are highlighted for any truck class, this means that the expected annual miles per truck have been exceeded. Calculated annual mileage values are shown on the **Activity Information** screen below the calculated MPG values. You may revise these values by adjusting either "Total Miles Driven" OR the "Total Trucks" (on the **Engine Model Year & Class** screen). Unless the calculated mileage value is greater than the absolute maximum allowed, you may leave these values as they are, and simply enter a text explanation (for "red" warning values). In this case your fleet will be flagged "Complete with Warnings" on the **Home** screen.

- If “Revenue Miles” or “Empty Miles” are highlighted, check their values relative to “Total Miles Driven” and to one another. For example, explanations are generally required if “Revenue Miles” are roughly less than 50% of “Total Miles Driven,” or if “Empty Miles” are greater than approximately 50% of “Total Miles Driven”, although specific validation cutoffs vary depending upon truck class, body type and operational category.

- If reefer fuel consumption is flagged, confirm the ratio of reefer gallons to total fuel consumption are accurate for your fleet.

- “Average Used Cargo Volume Percent” values of less than ~40-70% must be explained.

- “Average Idle Hours per Truck” outside typical partner values must be explained.

- If any calculated MPG values are highlighted, you may revise these values by changing either “Total Miles Driven” or the number of gallons of the fuel type used. You may also double-click on the highlighted MPG cell to obtain a popup screen with additional information, as shown in **Figure 63**. This form presents the expected MPG range based on typical SmartWay Partner 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 partner averages, while Level 2 Severity indicates a moderately out of range value.) If you believe this value is accurate, 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 will be flagged “Complete with Warnings” on the **Home** screen.) Otherwise select CANCEL to revise your total miles and/or gallons used.

- If payload, volume, and/or idle hour values are highlighted on the **Activity** screen, warnings and/or explanations can be viewed by opening the appropriate calculator(s).

- Possible rounding errors for miles and/or gallons are not highlighted on the **Activity** screen but are described in the detailed Validation list popup screen.

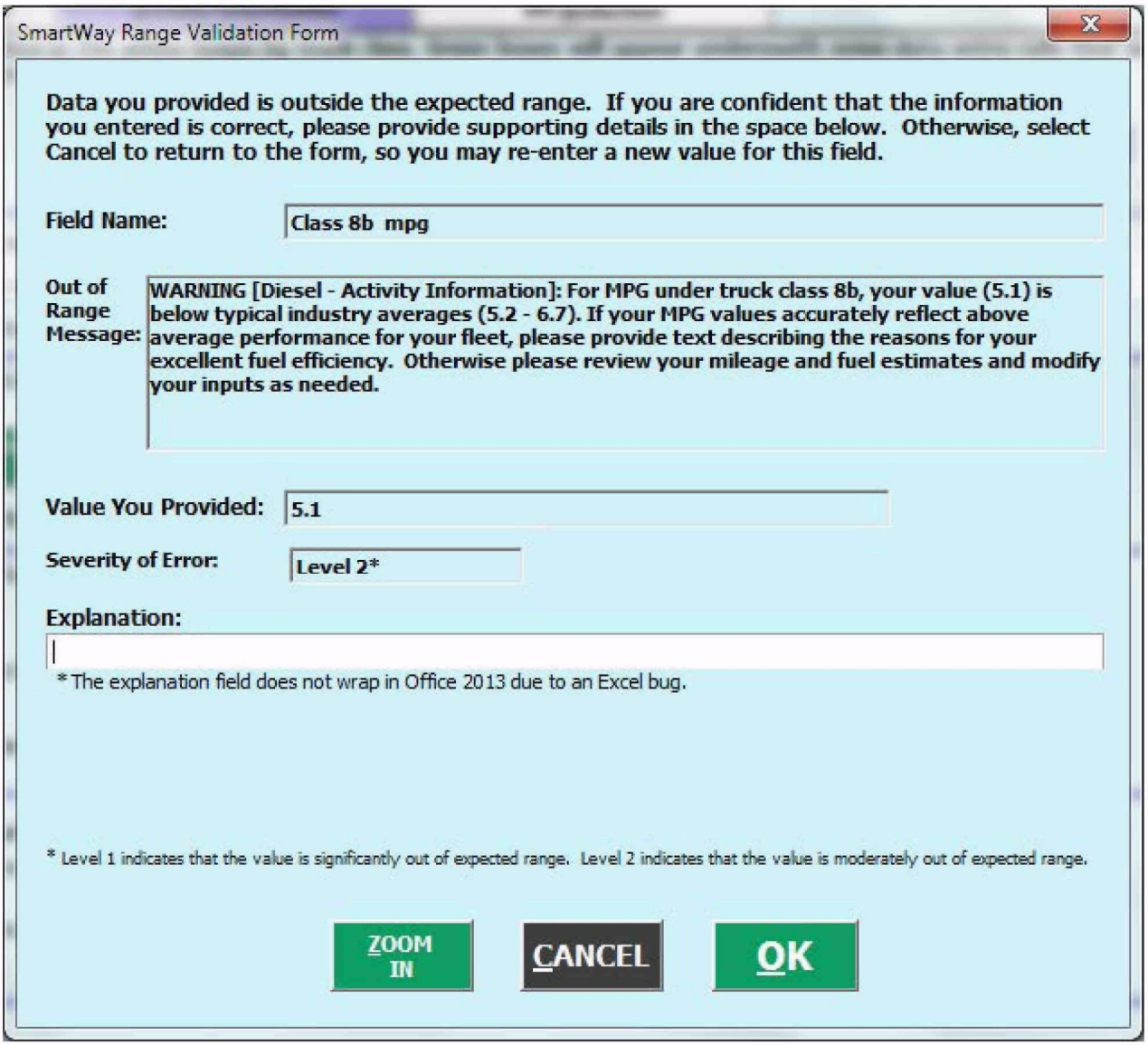


Figure 63: Validation Check – Example MPG Range Validation Form

Other checks are made regarding absolute minimum and maximum inputs for miles per truck, MPG, payload, volume, and idle hours, as well as checks regarding implicit cargo density based on payload, volume, and capacity utilization inputs. When absolute minimum or maximum values are exceeded, the Partner must revise the associated input values before proceeding (i.e., these values cannot be "explained away").

The Truck Carrier Tool also utilizes a number of "logical" validation checks to ensure the reasonableness of various inputs and category selections. For example, checks are applied regarding the consistency between body types specified in the **Fleet Description** section and those selected in the payload and volume calculators. If inconsistencies are found, in most instances a simple warning is indicated, and text explanations are not required. For a complete listing of all validation checks used in the Tool, refer to the Truck Carrier Tool Technical Documentation.

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

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

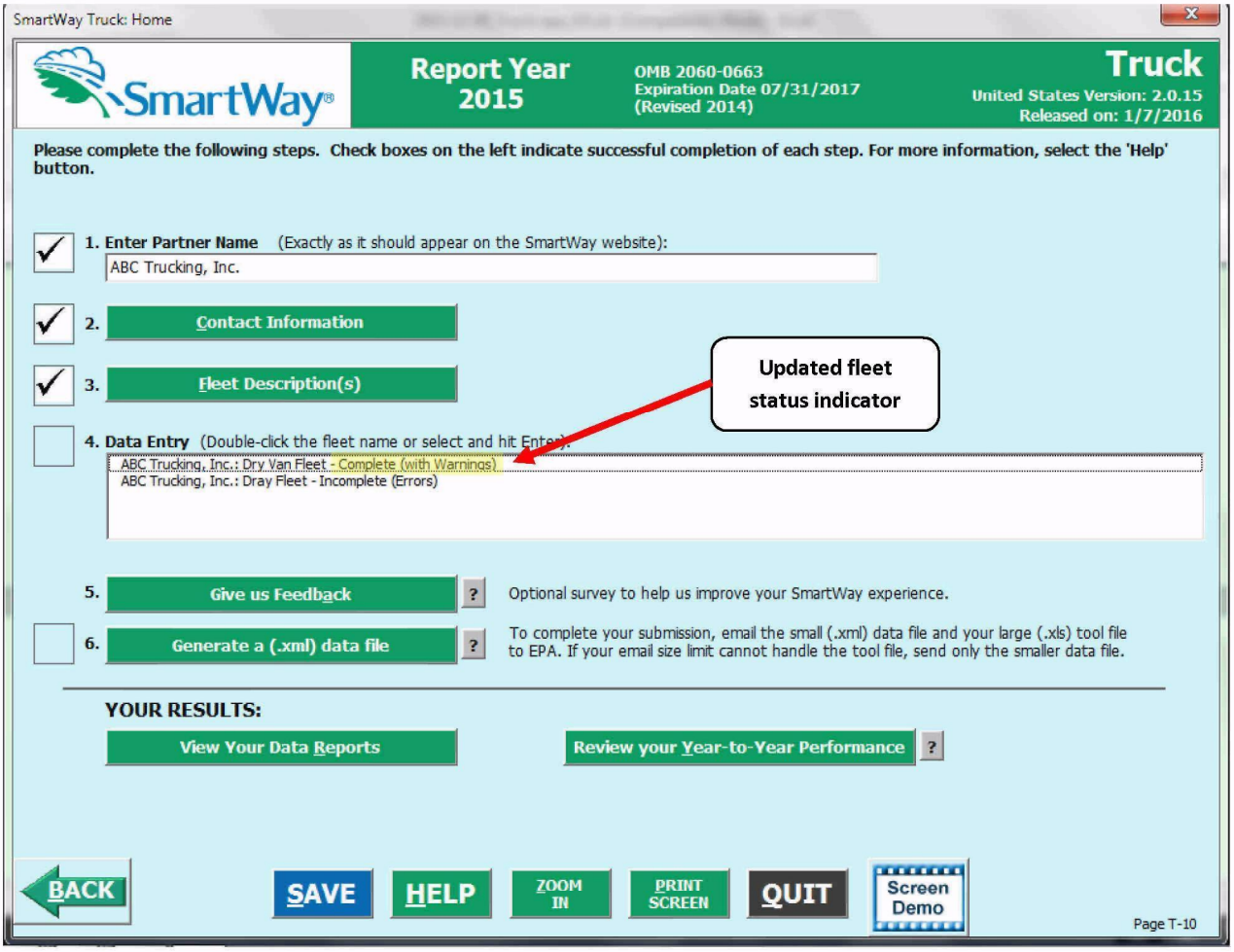


Figure 64: Home Screen - After Completing the Data Entry/Modification Process for First Fleet

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

Providing Suggestions

After completing Steps 1 – 4 on the **Home** screen, you may provide EPA with feedback regarding the SmartWay program. This information is optional and is not required in order to submit your Truck Carrier Tool data to EPA. Selecting the **Give us Feedback** button on the **Home** screen will open the **Suggestions** screen (see **Figure 65**).

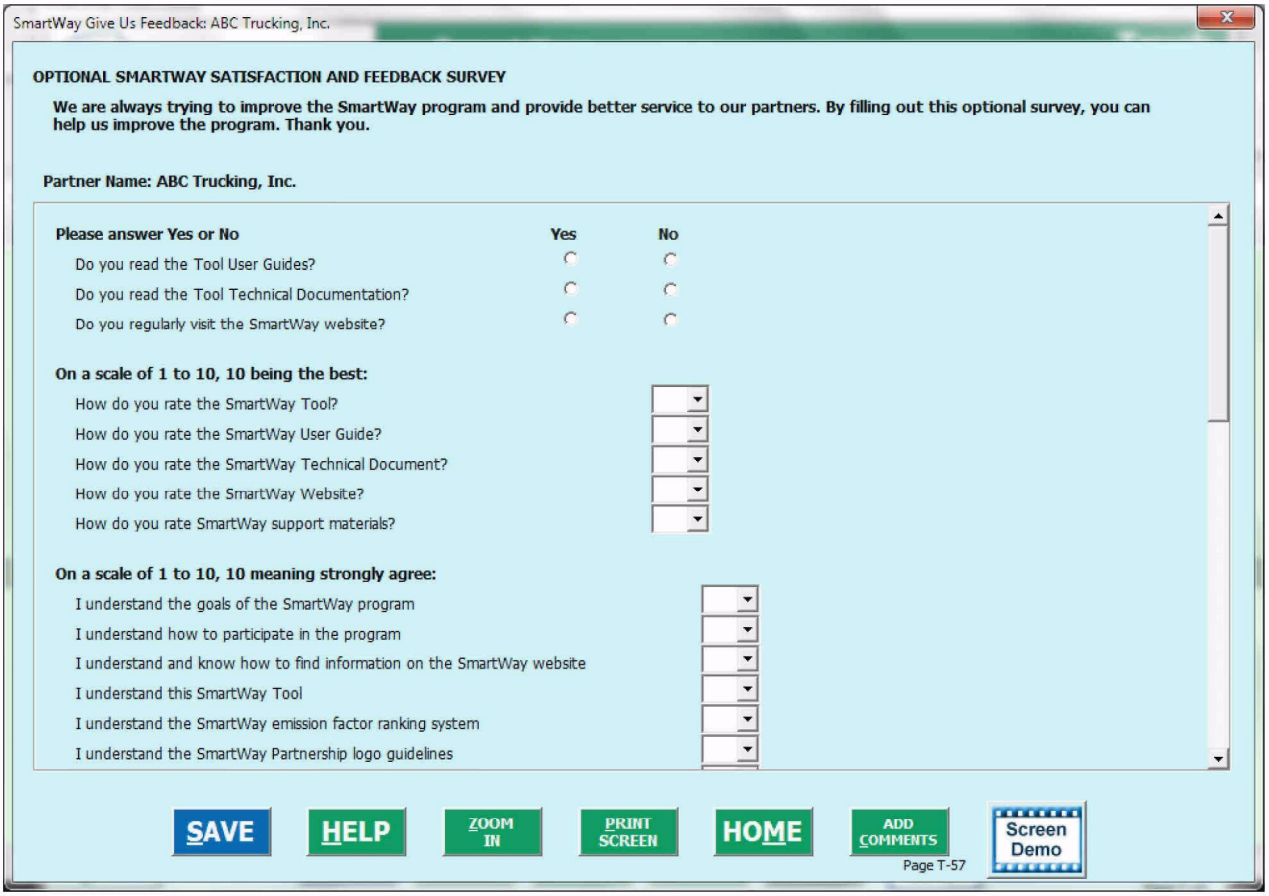


Figure 65: Suggestions Screen

You may respond to some or all of these questions in order to provide feedback regarding the various aspects of the SmartWay program. SmartWay values your feedback. Any information you provide will be used to improve the program, and will be kept confidential. Use the scroll bar to the right to display additional questions.

Once you have completed these three screens, select the **HOME** button to return to the **Home** screen.

View Your Data Reports

The **Home** screen also provides two optional sections for evaluating the accuracy of your data inputs as well as your fleet performance metrics. From the **Home** screen, select

View Your Data Reports to review the first optional section, the **Reports** screen.

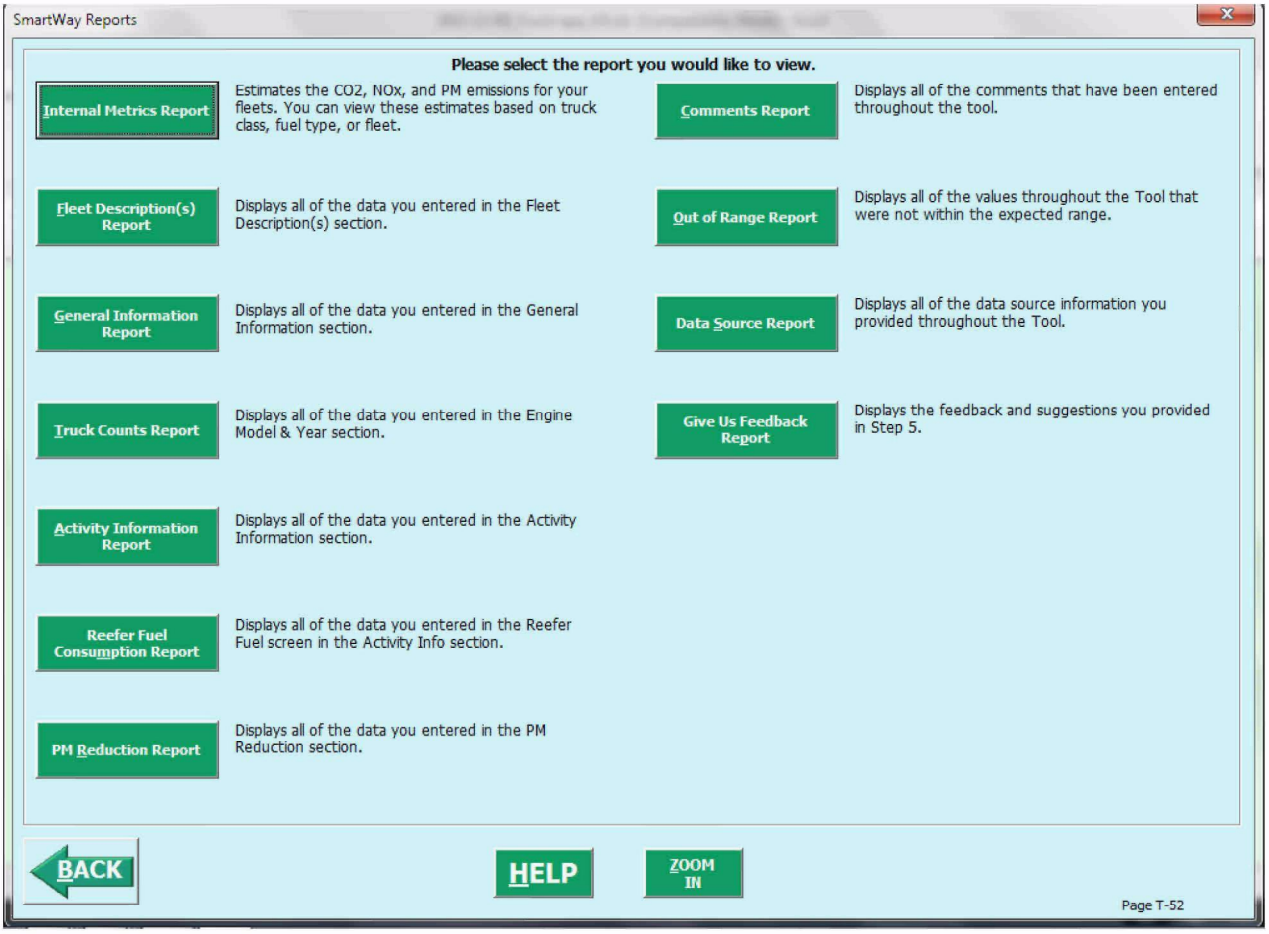


Figure 66: Reports Menu Screen

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 **Engine 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 validation.

Select the **Internal Metrics Report** button to review the performance of your fleets 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 67**.

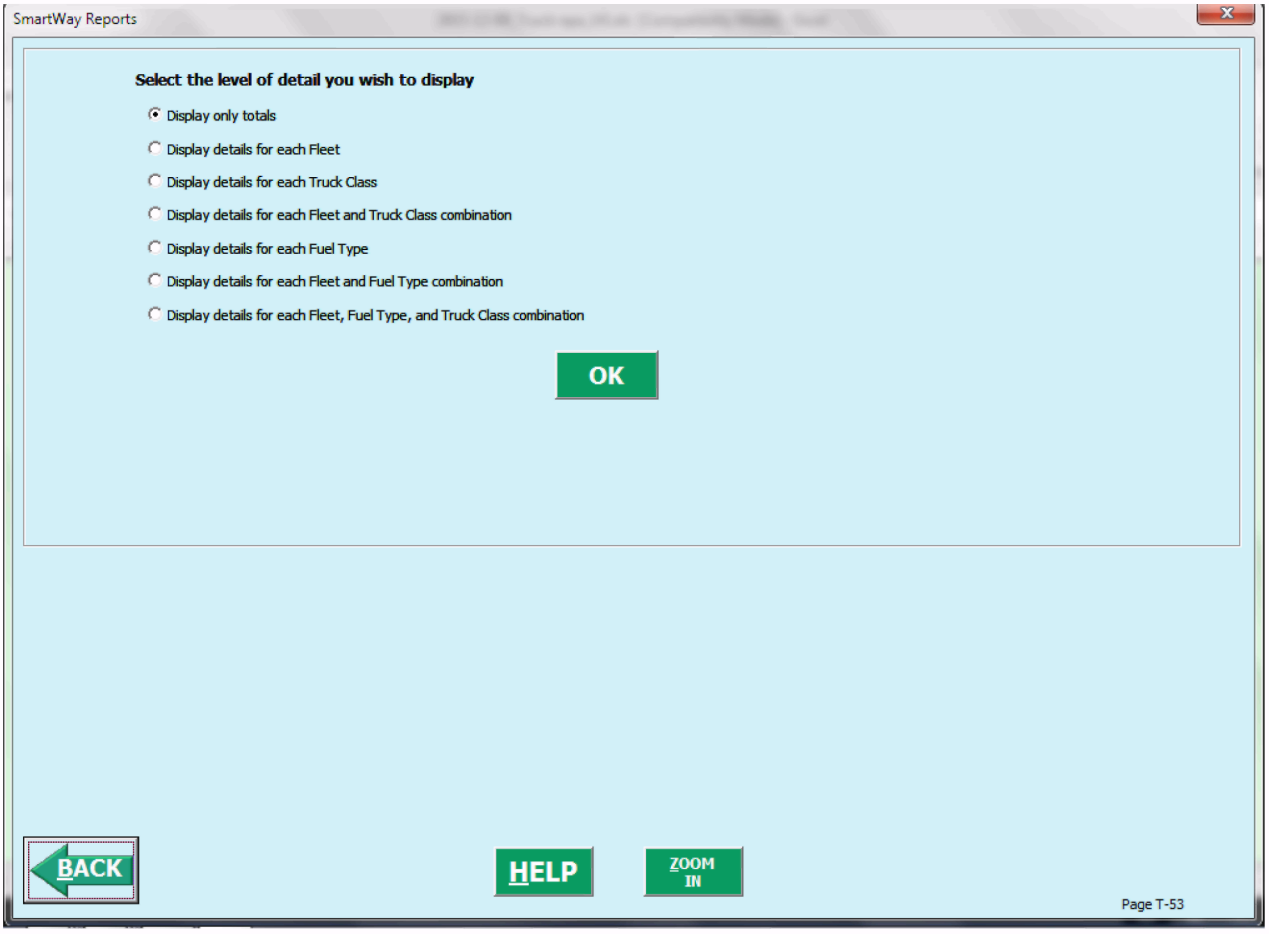


Figure 67: Internal Metrics Report Selection Menu

Selecting any of the summary report types will take you to a screen allowing you to preview and print your reports. **Figure 68** 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). These reports will prove useful for your company's evaluation and improvement efforts.

Internal Metrics
Tool: Truck
Display Option #1: Totals Only

Report Year: 2015
Partner: ABC Trucking, Inc.

December 16, 2015

CO2	Total Tons (Short)	Total Miles				Loaded Miles				Revenue Miles			
		Grams per Mile (Total)	Grams per Average Payload Ton-Mile (Total)	Grams per Thousand Cubic Foot-Miles (Total)	Grams per Thousand Utilized Cubic Foot-Miles (Total)	Grams per Mile (Loaded)	Grams per Average Payload Ton-Mile (Loaded)	Grams per Thousand Cubic Foot-Miles (Loaded)	Grams per Thousand Utilized Cubic Foot-Miles (Loaded)	Grams per Mile (Revenue)	Grams per Average Payload Ton-Mile (Revenue)	Grams per Thousand Cubic Foot-Miles (Revenue)	Grams per Thousand Utilized Cubic Foot-Miles (Revenue)
Partner Total	50,831	1,925	179	564	688	2,199	202	635	773	2,135	198	624	760

NOx	Total Tons (Short)	Total Miles				Loaded Miles				Revenue Miles			
		Grams per Mile (Total)	Grams per Average Payload Ton-Mile (Total)	Grams per Thousand Cubic Foot-Miles (Total)	Grams per Thousand Utilized Cubic Foot-Miles (Total)	Grams per Mile (Loaded)	Grams per Average Payload Ton-Mile (Loaded)	Grams per Thousand Cubic Foot-Miles (Loaded)	Grams per Thousand Utilized Cubic Foot-Miles (Loaded)	Grams per Mile (Revenue)	Grams per Average Payload Ton-Mile (Revenue)	Grams per Thousand Cubic Foot-Miles (Revenue)	Grams per Thousand Utilized Cubic Foot-Miles (Revenue)
Partner Total	117.1	4.4	0.41	1.300	1.585	5.1	0.46	1.462	1.780	4.9	0.46	1.436	1.751

PM2.5	Total Tons (Short)	Total Miles				Loaded Miles				Revenue Miles			
		Grams per Mile (Total)	Grams per Average Payload Ton-Mile (Total)	Grams per Thousand Cubic Foot-Miles (Total)	Grams per Thousand Utilized Cubic Foot-Miles (Total)	Grams per Mile (Loaded)	Grams per Average Payload Ton-Mile (Loaded)	Grams per Thousand Cubic Foot-Miles (Loaded)	Grams per Thousand Utilized Cubic Foot-Miles (Loaded)	Grams per Mile (Revenue)	Grams per Average Payload Ton-Mile (Revenue)	Grams per Thousand Cubic Foot-Miles (Revenue)	Grams per Thousand Utilized Cubic Foot-Miles (Revenue)
Partner Total	2.95	0.112	0.0104	0.0328	0.0400	0.128	0.0117	0.0369	0.0449	0.124	0.0115	0.0362	0.0442

PM10	Total Tons (Short)	Total Miles				Loaded Miles				Revenue Miles			
		Grams per Mile (Total)	Grams per Average Payload Ton-Mile (Total)	Grams per Thousand Cubic Foot-Miles (Total)	Grams per Thousand Utilized Cubic Foot-Miles (Total)	Grams per Mile (Loaded)	Grams per Average Payload Ton-Mile (Loaded)	Grams per Thousand Cubic Foot-Miles (Loaded)	Grams per Thousand Utilized Cubic Foot-Miles (Loaded)	Grams per Mile (Revenue)	Grams per Average Payload Ton-Mile (Revenue)	Grams per Thousand Cubic Foot-Miles (Revenue)	Grams per Thousand Utilized Cubic Foot-Miles (Revenue)
Partner Total	3.05	0.115	0.0107	0.0338	0.0412	0.132	0.0121	0.0380	0.0463	0.128	0.0119	0.0374	0.0455

Figure 68: Example of Completed Report

Viewing Year-to-Year Performance

The **Year-to-Year Performance** Report is another optional section of the Tool, allowing the user to compare the fleet characteristics and activity values, as well as CO_2 performance metrics for the current reporting year with the previous year. 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 **Review your Year-to-Year Performance** under item #5 on the **Home** screen.

Figure 69 shows the data entry screen for the comparison report. Note that your most recent year's data is already "loaded," including the data you have entered for your current fleet(s). In order to load data for the previous year fleets, 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 70**.

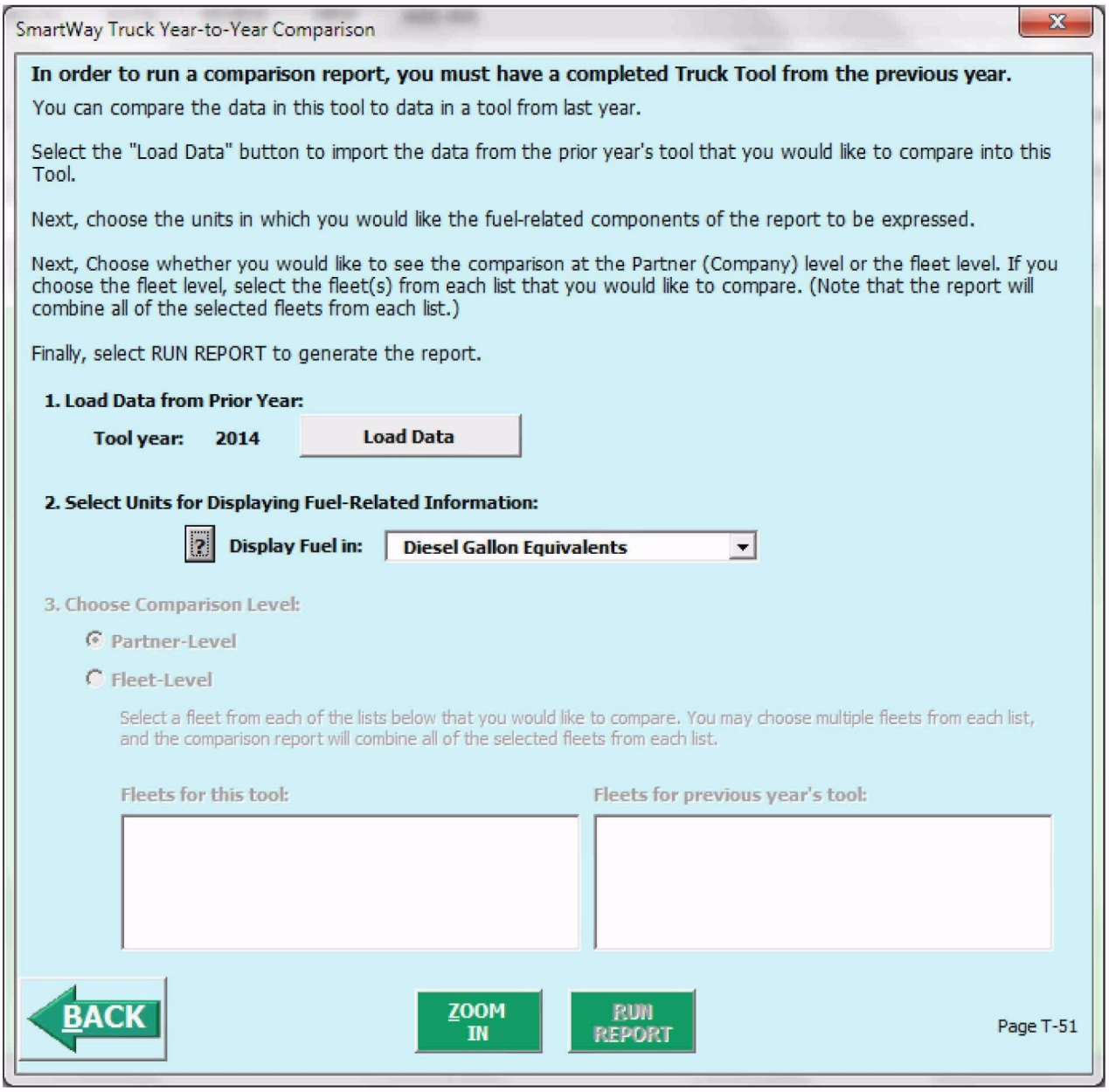


Figure 69: Year-to-Year Comparison Report Input Screen

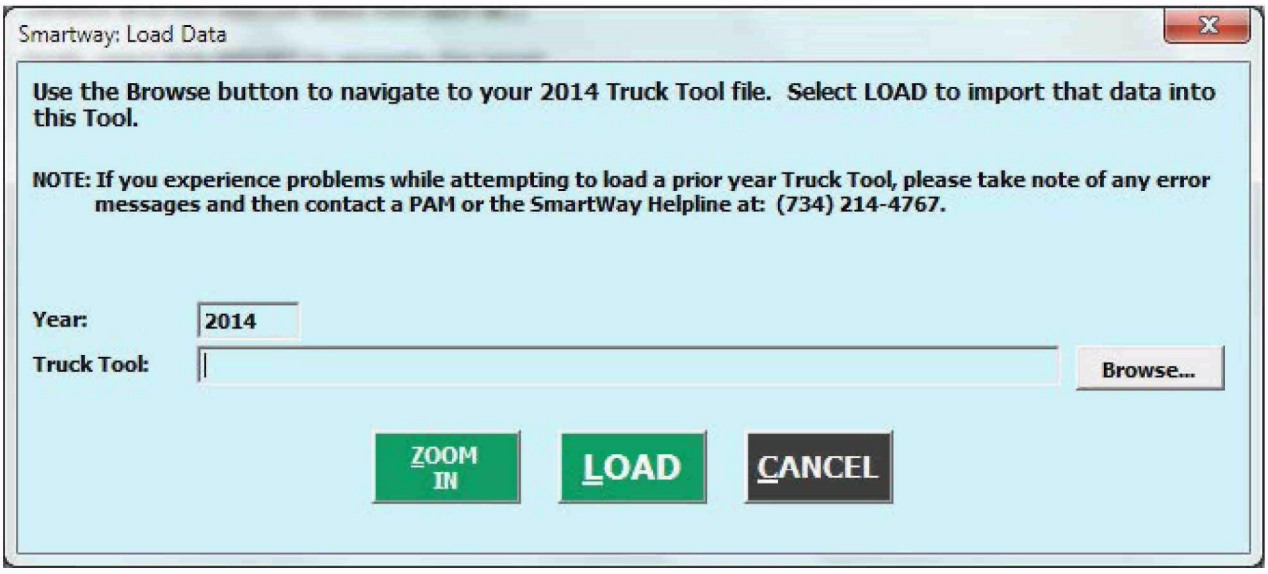


Figure 70: Data Load Screen for Year-to-Year Comparison Report

Once your prior year data loaded into the Truck Carrier 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 instead the comparison should aggregate all fleets (select "Company-Level"). Once specified, select the "RUN REPORT" button to view the line-item data entry comparisons. An example report is presented in **Figure 71.**

Comparison Report **Reporting Years: 2015 & 2014** **December 16, 2015**

Tool: Truck **Partner : All Things Christmas**

	Change %	Change Amount	2015	2014
Partner Name:			ABC Trucking, Inc.	ABC Trucking, Inc.
Working Contact:		X	Steven Johnson	Judy Williams
Phone		X	325-874-8574 / 555	654-654-6542
SCAC(s)			ABCD	ABCD
MCN			#5287485	#5287485
DOT			#3268954	#3268954
NSC				
Fleet Type			Dedicated	Dedicated
Ranking Category			Truckload - Dry Van	Truckload - Dry Van

Comparison Report **Reporting Years: 2015 & 2014** **December 16, 2015**

Tool: Truck **Partner : All Things Christmas**

	Change %	Change Amount	2015	2014
Body Types		X	DryVan (90%) / Reefer (10%)	DryVan (85%) / Reefer (15%)
MPG	-13.1%	-0.92	6.14	7.06
Miles Per Truck	-33.6%	-17,883	35,299	53,182
Average Payload (tons/truck)*	74.4%	6.6	15.5	8.9
Truck Cargo Volume (cu ft/truck)*	30.8%	537	2,280	1,743
Average Used Cargo Volume %*	3.2%	3%	92%	89%
% Highway or Rural Driving*	-13.4%	-11%	68%	78%
% Urban Driving (Under 25 mph)*	53.3%	5%	15%	10%
% Urban Driving (25 mph to 50 mph)*	33.4%	3%	12%	9%
% Urban Driving (Over 50 mph)*	30.9%	1%	4%	3%
Average Idle Hours (per truck per year)	181.9%	502	778	276
Number of Trucks	12.4%	13	118	105
Class 2b	20.0%	2	12	10
Class 3	200.0%	20	30	10
Class 4	-100.0%	-10	-	10
Class 5	-90.0%	-9	1	10
Class 6	150.0%	15	25	10
Class 7	-100.0%	-35	-	35
Class 8a	-100.0%	-10	-	10
Class 8b	400.0%	40	50	10
Total Annual Miles Driven	-25.4%	-1,418,840	4,165,278	5,584,118
Total Annual Revenue Miles	-26.7%	-1,366,679	3,754,268	5,120,947
Total Annual Empty Miles	-5.1%	-22,076	411,010	433,086
Fuel (Gallons or kWhr)	-14.2%	-112,038	678,850	790,888

Comparison Report **Reporting Years: 2015 & 2014** **December 16, 2015**

Tool: Truck **Partner : All Things Christmas**

	Change %	Change Amount	2015	2014
Gallons of Diesel Used, incl. Reefer	-21.6%	-170,563	620,325	790,888
Gallons of Biodiesel (B100 Equivalents)	N/A	4,583	4,583	-
Gallons of Gasoline Used, incl. Reefer	N/A	22,567	22,567	-
Gallons of Ethanol (E100 Equivalents)	N/A	1,955	1,955	-
Gallons of LPG Used, not incl. Reefer		-	-	-
Gallons of LNG Used, not incl. Reefer		-	0	0
Gallons of CNG Used, incl. Reefer	N/A	28,906	28,906	0
kWhrs of Electricity Used, not incl. Reefer	N/A	514	514	0
Gallons of Hybrid Fuel Used, incl. Reefer		-	0	0
CO2 Total Tons (Short)	-14.9%	-1,320	7,555	8,875
CO2 Grams per Mile (Total)	14.1%	204	1,645	1,442
CO2 Grams per Average Payload Ton-Mile (Total)	-34.6%	-56	106	162
CO2 Grams per Thousand Cubic Foot-Miles (Total)	-12.8%	-105	722	827
CO2 Grams per Thousand Utilized Cubic Foot-Miles (Total)	-16.7%	-156	779	935

* For partner or multiple fleet totals, average values are weighted by total truck miles.
**DGE

Figure 71: Example Year-to-Year Comparison Report

The example above indicates that a change in the Working Contact and phone number has occurred over a year, 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 cargo capacity volume
- average used cargo volume percent
- 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 or "DGE")
- miles per truck
- tons of CO_2
- grams CO_2 per mile
- grams CO_2 per ton-mile
- grams CO_2 per 1,000 cubic foot-miles
- grams CO_2 per utilized 1,000 cubic foot-miles

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

Submitting Data to SmartWay

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

Select the **Generate a (.xml) data file** button, which will open the following screen.

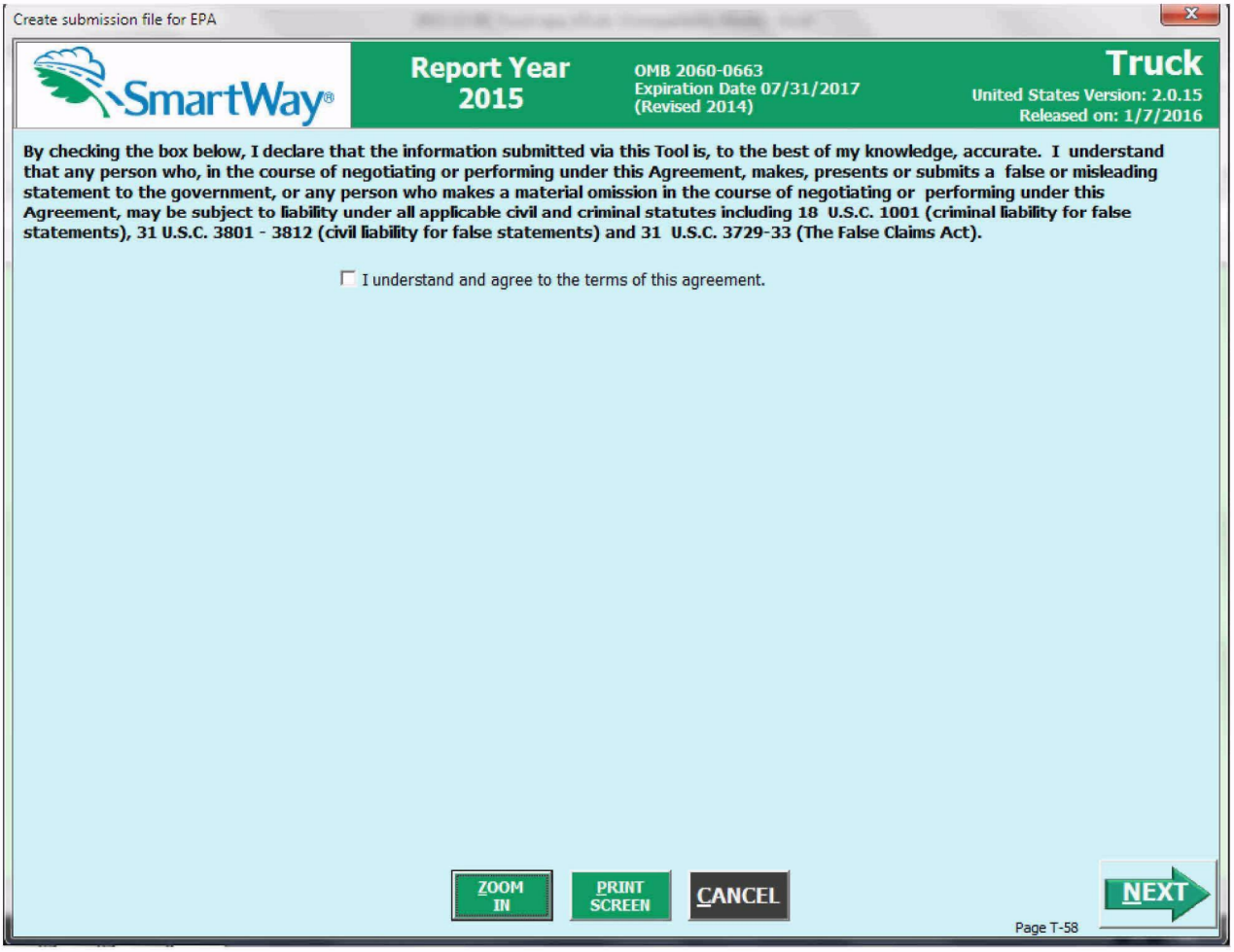


Figure 72: Creating Submission File for EPA

Select the checkbox to indicate you understand the terms of the SmartWay Partnership Agreement once again. Next, a question will appear asking if you are an existing SmartWay Partner (Y/N). If you are, a question will appear asking for your Annual Submission ID, which has been sent to you by your SmartWay PAM via email. If you cannot locate your submission ID you can select the **Email me my SmartWay ID** button to have your ID sent to you. Submission of the SmartWay ID is optional.

If you are not an existing SmartWay Partner you will be asked how your company initially heard about SmartWay, and possibly some follow-on questions (see **Figure 73** below).

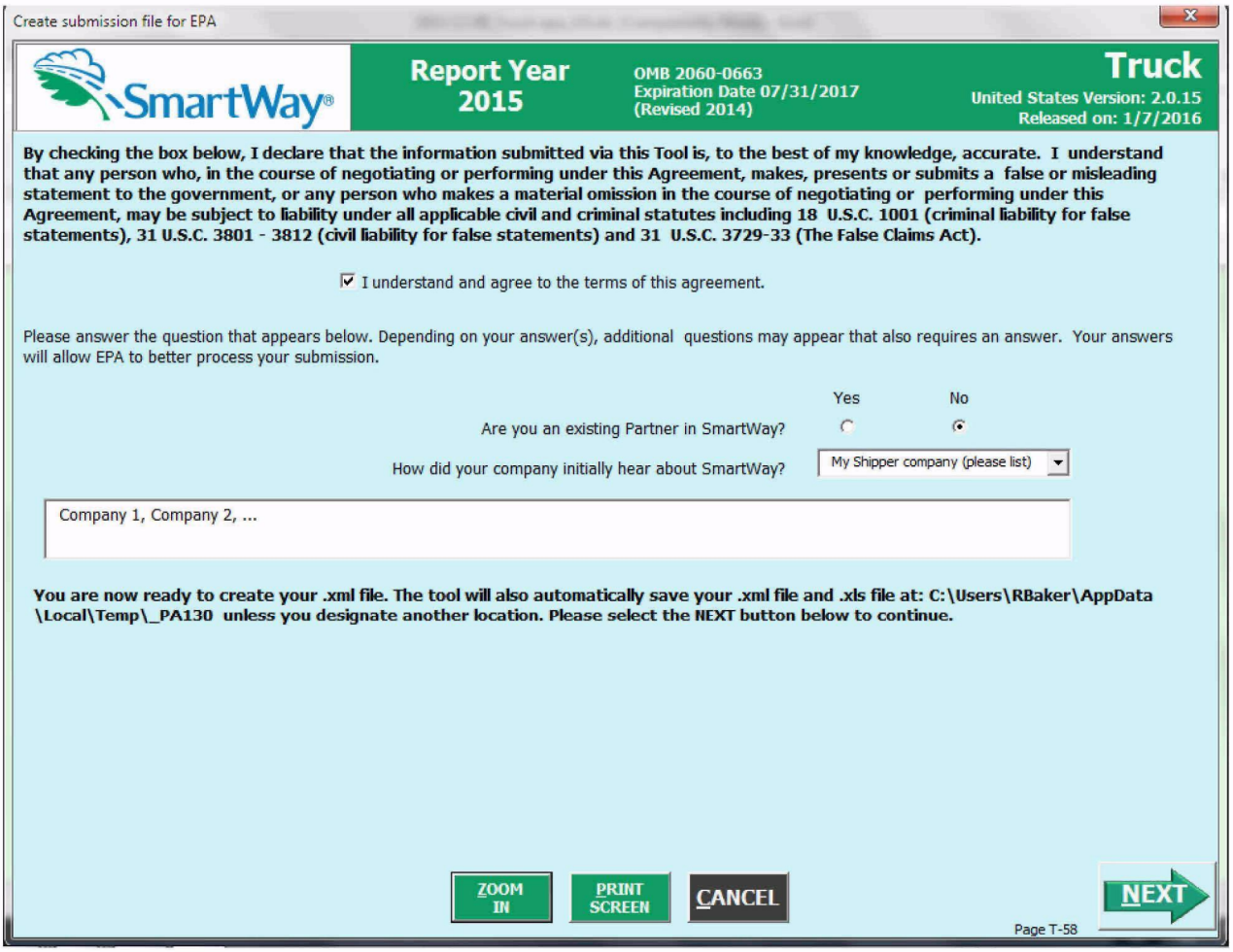


Figure 73: Completed Submission File Screen

When ready, select to create a file with the following naming convention:

Truck_PartnerName_ Year_ V0.xml [12]

For example, Truck_ABCompany_2015_V0.xml

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.

Next specify the folder where you would like to save the. xml file, and the following screen will appear.

[12] If you create the XML file multiple times the file name will increment each time (e.g., Truck_ABCompany_2014_V1.XML for the second iteration, etc.

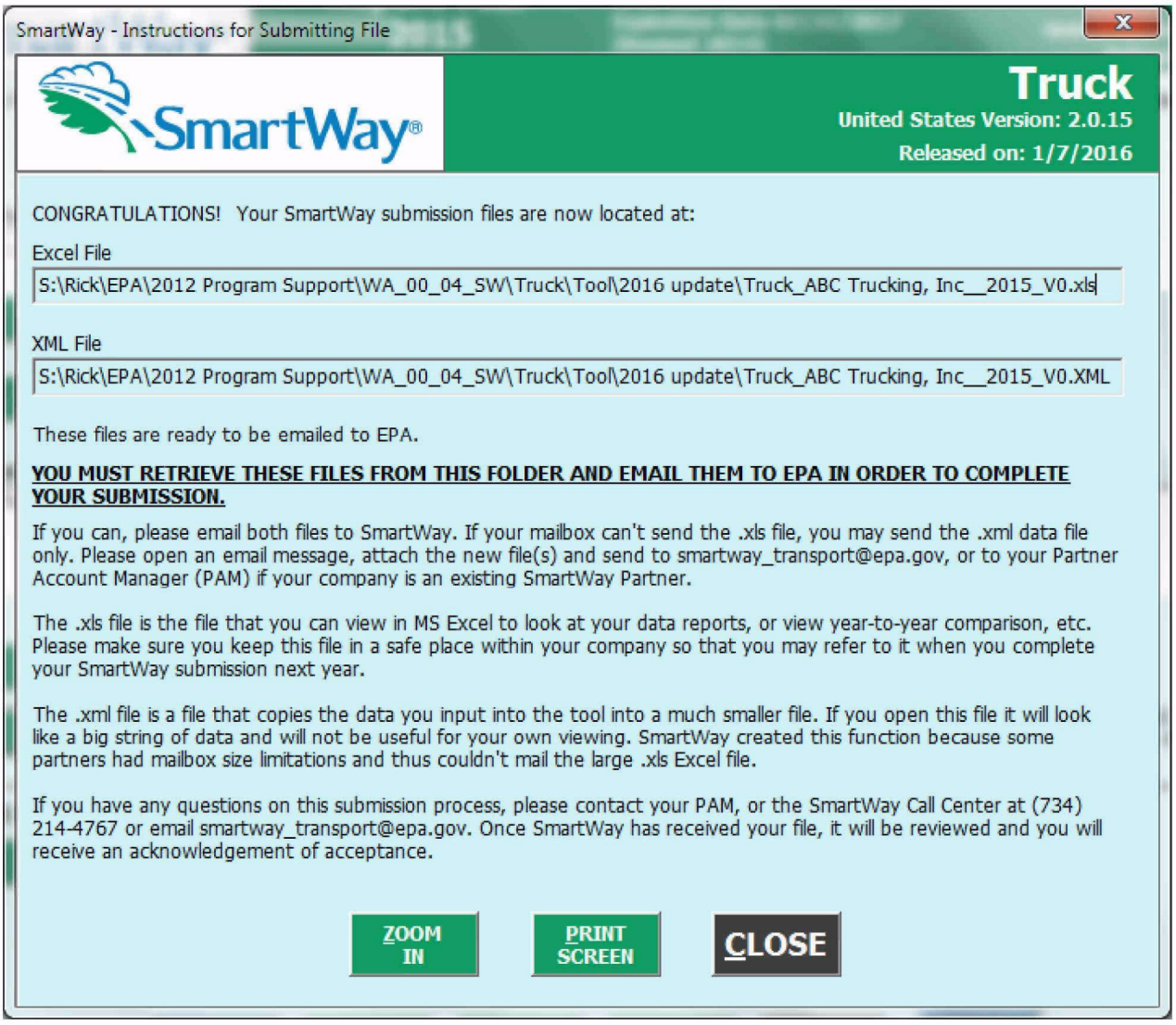


Figure 74: Instructions for Submitting xml Files to EPA

Follow these instructions for submitting your .xml and .xlsx files to SmartWay. Note that the .xml file is approximately 10 times smaller than the .xlsx file itself.

Upon selecting CLOSE a screen will appear that allows you to close the Truck Carrier Tool or return to the **Home** screen.

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.

NOTE: DO NOT CHANGE THE NAME OF THE XML OR XLSX FILES.

NOTE: DO NOT DELETE YOUR EXCEL (XLSX) TOOL – SAVE THIS FILE FOR YOUR REFERENCE.

Troubleshooting the Tool

Although the SmartWay tools have been tested extensively, you may encounter errors. Intermittent errors have been encountered when opening the Tool from an e-mail rather than from a drive. In addition, note that you will not be able to open the Tool successfully directly from the SmartWay website, so save the Tool to your hard drive before opening. If you encounter an error during use of the Tool, 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 later version).

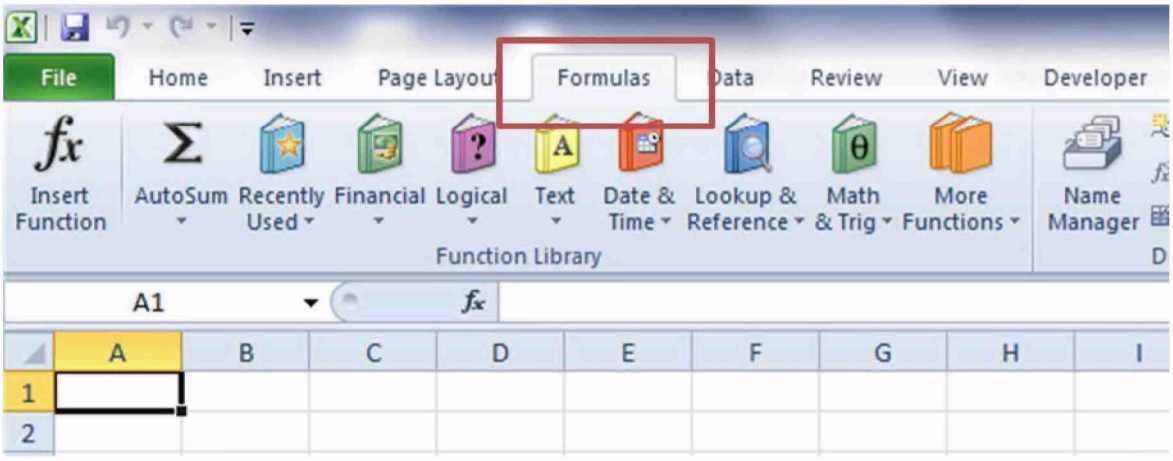
If you continue to encounter problems, make a screen capture of the error message, and save the Tool at that point. (You can make a screen capture by pressing the keys *Alt and Print Screen at the same time*, and then pasting the image into a document such as MS Word.) Then send the screenshot, along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

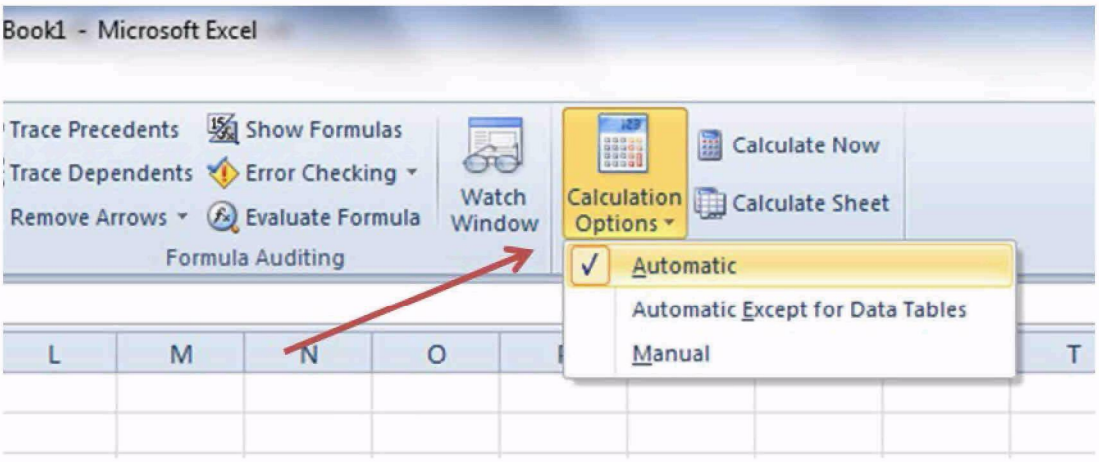
Proper Calculation Setting

By default, Microsoft Excel is set to automatically calculate formulas. If values within your Tool are not calculating automatically, then your Excel may be set to "Manual". Follow these instructions to change your Excel Calculation setting.

Office 2010

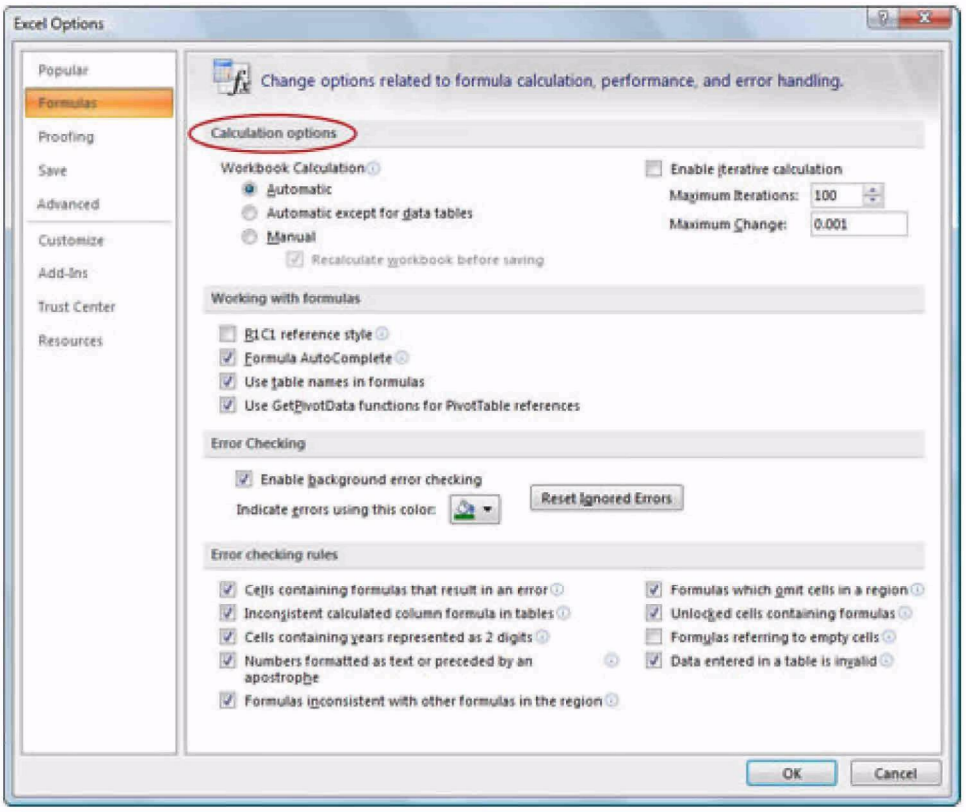
Choose the "Formulas" tab. Select the "Calculation Options" button in the "Calculation" section to view the drop-down list of options. Choose "Automatic" from the list of options to switch to automatic calculation.





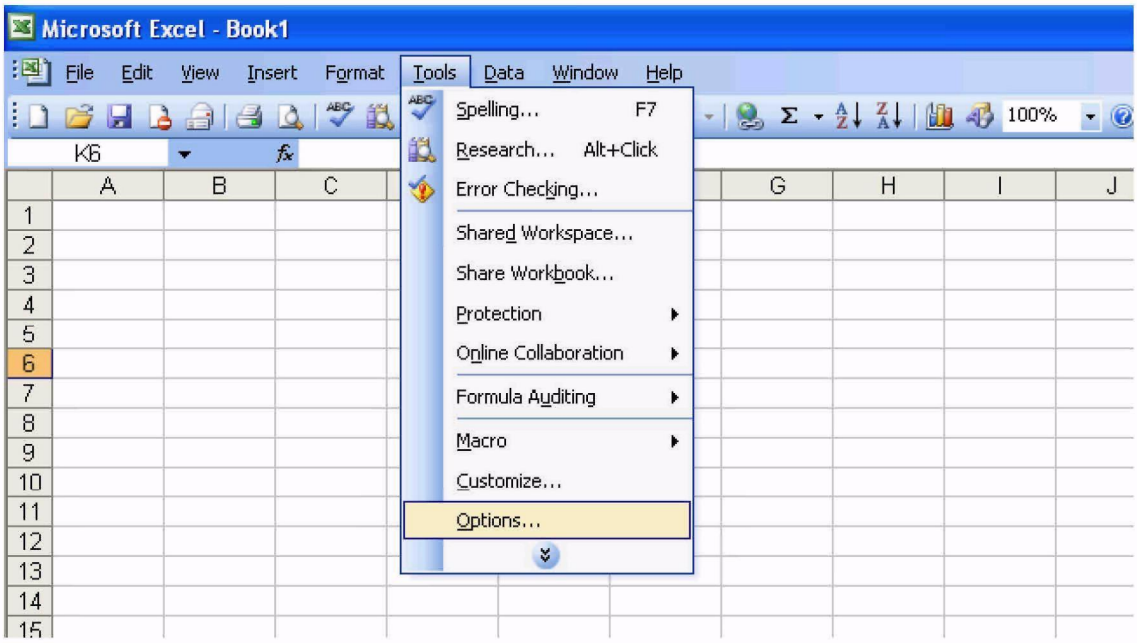
Office 2007

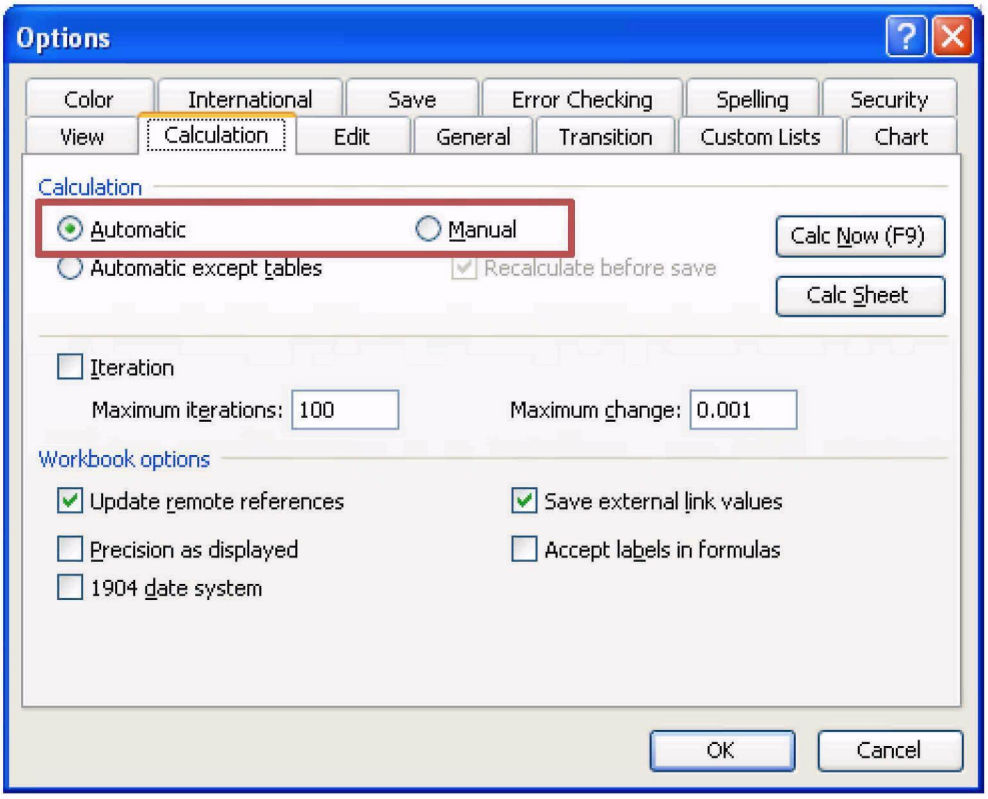
Select the Office button at the top left. Then select the Excel Options button and the Excel Options dialog box will appear. Select the Formulas tab and the Formulas options will appear in the right pane. Select the "Automatic" radio button in the Calculation options section.



Office 2003

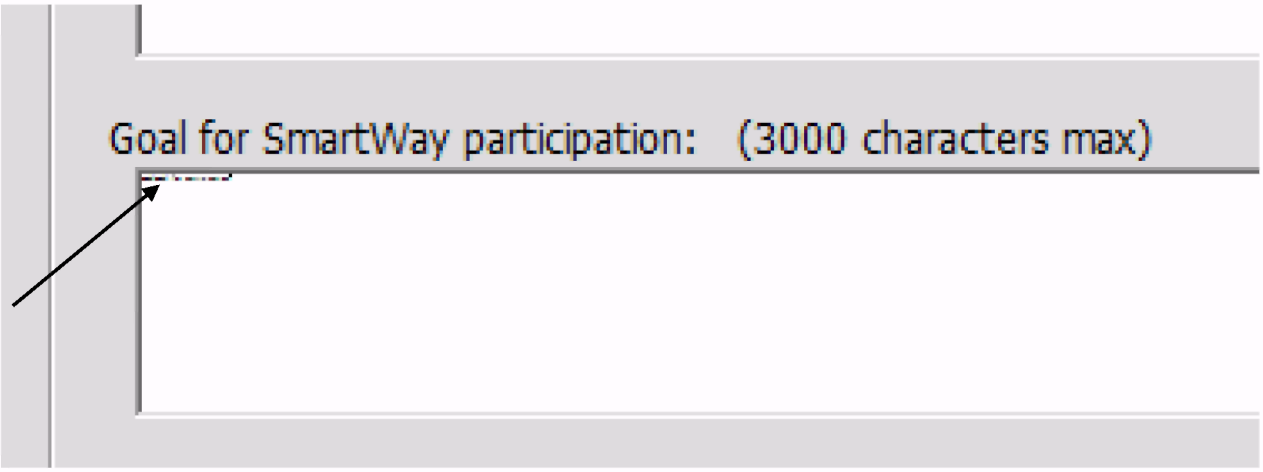
From the tools menu, select “Options”. When the Options dialog box is displayed, select the “Calculation” tab. Under the Calculation section, select the “Automatic” radio button and then select “OK”.





Office 2013 Text Display

Users of MS Office 2013 may encounter problems displaying text entries. The example below shows how the information typed into the "Goal for SmartWay participation" text box is barely visible. This is due to a bug in the MS Office system itself.



EPA has corrected the display problem in certain locations within the Tool, but if you encounter this problem we recommend opening a different word processor such as MS Word, typing the desired entry in the word processor, then cutting and pasting the entry back into the text box within the Tool. This should allow you to view your entry properly within the Tool.

Appendix A—Recommended Data Sources for Activity Data

Table A-1 summarizes **the standard Data Source categories** available for selection for each data type.

Table A-1: Data Source Detail Selection Options

Data Type	Data Source	Data Source Detail
Total Miles Driven	As reported to IFTA Form 441 for tax reporting (interstate) – for Class 7, 8a and 8b trucks only	Collected via fleet-wide GPS reporting software
		Collected via odometer readings
		Collected via maintenance records
		Collected via driver trip sheets
		Collected via standard mileage routes, e.g. PC Miler, Household Goods Guide
	As reported to individual states for tax reporting (intrastate)	Collected via fleet-wide GPS reporting software
		Collected via odometer readings
		Collected via maintenance records
		Collected via driver trip sheets
		Collected via standard mileage routes, e.g. PC Miler, Household Goods Guide
	Determined using software	Dispatching Software*
		Transportation Management System (TMS)*
	Vehicle-based data collection	Determined via Electronic Control Module (ECM) data recorder/logger*
Revenue Miles Driven	As used in Federal tax reporting	Collected via electronic Transportation Management System (TMS)
		Collected via GPS-enabled TMS
		Collected via manual input into company database with driver trips sheets
		Collected via non-electronic company records
	Financial data	Accounting/billing software*
		Tax reports/IRS and State*

Data Type	Data Source	Data Source Detail
Revenue Miles Driven (cont'd)	Determined using software	Dispatching Software*
		Transportation Management System (TMS)*
	Based on total mileage	Equal to total miles
		Total miles less empty miles
		Calculated as a percentage of total miles*
Empty Miles Driven	Collected automatically / electronically / manually	Collected via electronic Transportation Management System (TMS)
		Collected via GPS-enabled TMS
		Collected via manual input into company database
		Collected via non-electronic company records
		Collected via odometer readings
		Collected via driver trip sheets
	Financial Data	Accounting/billing software*
		Tax reports/IRS and State*
	Determined using software	Dispatching Software*
		Transportation Management System (TMS)*
	Based on total mileage	Total miles less revenue miles
		Calculated as a percentage of total miles*
Gallons of Fuel Used^	As reported to IFTA Form 441 for tax reporting (interstate) – for Class 7, 8a and 8b trucks only	Collected via electronic fuel receipt
		Collected via paper fuel receipt
		Collected via driver trip sheets
		Collected via electronic expenditure data
		Collected via paper expenditure data
	As reported to individual state for tax reporting (intrastate)	Collected via electronic fuel receipt
		Collected via paper fuel receipt

Data Type	Data Source	Data Source Detail
Gallons of Fuel Used (cont'd)		Collected via driver trip sheets
		Collected via electronic expenditure data
		Collected via paper expenditure data
	Determined using software	Dispatching Software*
		Transportation Management System (TMS)*
	Vehicle-based data collection	Determined via Electronic Control Module (ECM) data recorder/logger*
	Based on MPG estimates*	User-provided
Average Payload	Bills of Lading – electronic records (preferred)	Based on actual miles traveled by specific payloads*
		Trip-weighted (total payload weights / total trips)*
	Bills of Lading – manual records	Based on actual miles traveled by specific payloads*
		Trip-weighted (total payload weights / total trips)*
	Ranges provided by calculator	N/A (calculator)
Average Volume	Determined using company records*	User-provided
	Defaults from calculator	N/A (calculator)
Capacity Utilization	Collected automatically / electronically / manually	Collected through load volume information
	Determined using software	Dispatching Software*
		Transportation Management System (TMS)*
Road Type / Speed Categories	Collected automatically / electronically	Driver trip sheets*
		Governed speed*
		Determined via GPS
		Determined via Electronic Control Module (ECM) data recorder/logger*
		Driver trip sheets*

Data Type	Data Source	Data Source Detail
	Transportation Management System (TMS)	Governed speed*
		Determined via GPS
		Determined via Electronic Control Module (ECM) data recorder/logger*
Average Annual Idle Hours per Truck	Vehicle-based data collection	Determined via Electronic Control Module (ECM) data recorder/logger*
	Driver trip reports*	User-provided
	Idle reduction strategy	Company "No Idle" policy in place*
		Local/State idle regulation in place*
	Determined using software	Dispatching Software*
		Transportation Management System (TMS)*

* User must provide additional description regarding data collection system and calculation method.

^ For electric vehicles, in lieu of gallons, use kWhrs. Common data sources for kWhrs include metering at charging dock, vehicle data acquisition units, and smart-meter applications.