SmartWay®
Transport Partnership
U.S. Environmental Protection Agency

Barge Carrier Partner 2.0.13 Tool: Data Entry & Troubleshooting Guide 2013 Data Year - United States Version



EPA United States Environmental Protection Agency

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

EPA United States Environmental Protection Agency

Office of Transportation and Air Quality
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Part 3: DATA ENTRY GUIDE

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

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

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



WARNING!

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



NOTE – The Barge Tool is designed for vessels transporting freight by barge. Tug/tow vessel movements dedicated to other types of activity such as harbor services (e.g., ship docking) should be excluded from Tool inputs.

Downloading and Setting up the Tool

About Microsoft Excel

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

Downloading the SmartWay Barge Tool

The Tool can be downloaded from the SmartWay website at: www.epa.gov/smartway/forpartners/index.htm.

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

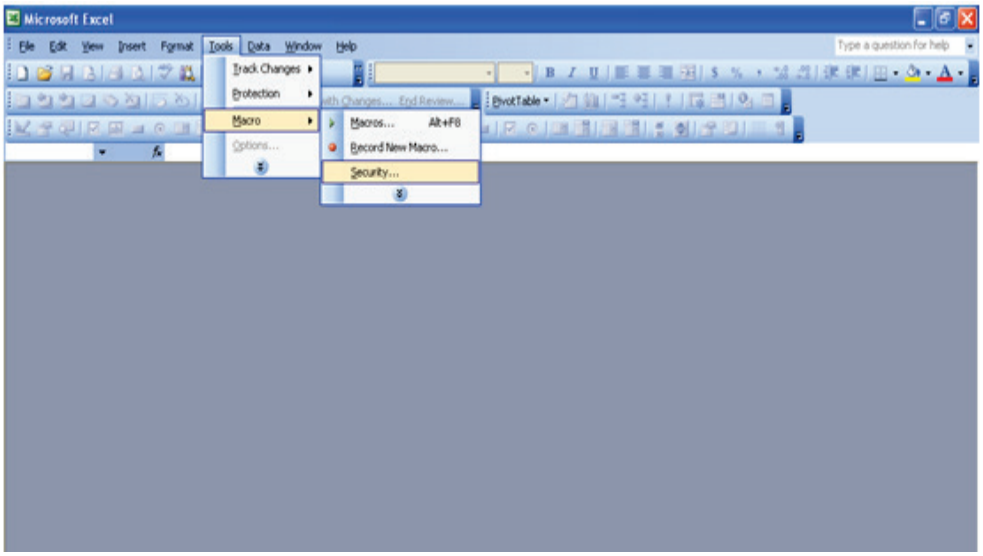
Security Settings for the SmartWay Tools

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

Security Settings for Excel 2003 Users

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

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



- When that window opens, select Medium.

Figure 1: Macro Drop-Down Menu

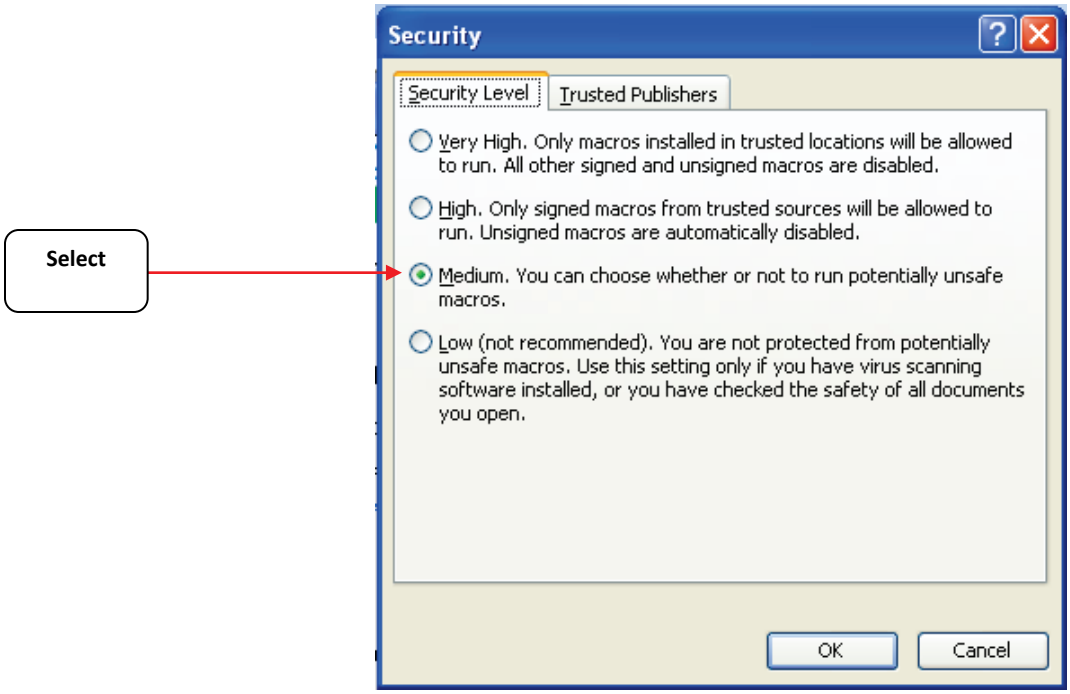


Figure 2: Security Dialog Box

To run the Tool:

1) Save the Tool to your computer in a folder on your hard drive; and,

2) Double-click on the file to open the Tool.

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

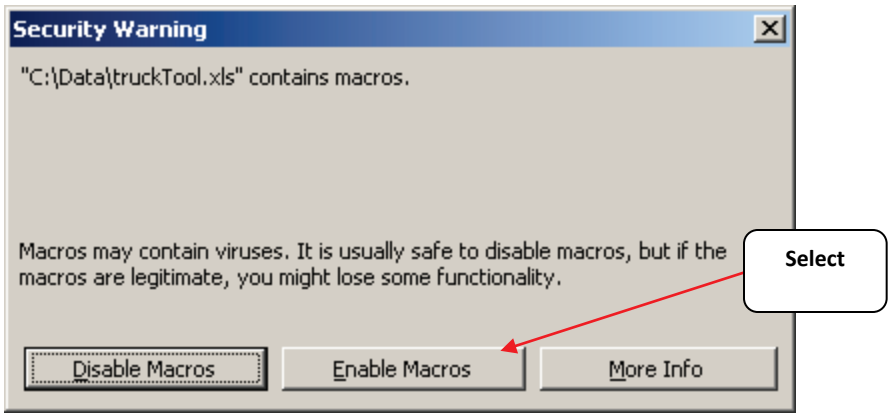


Figure 3: Security Warning Box

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

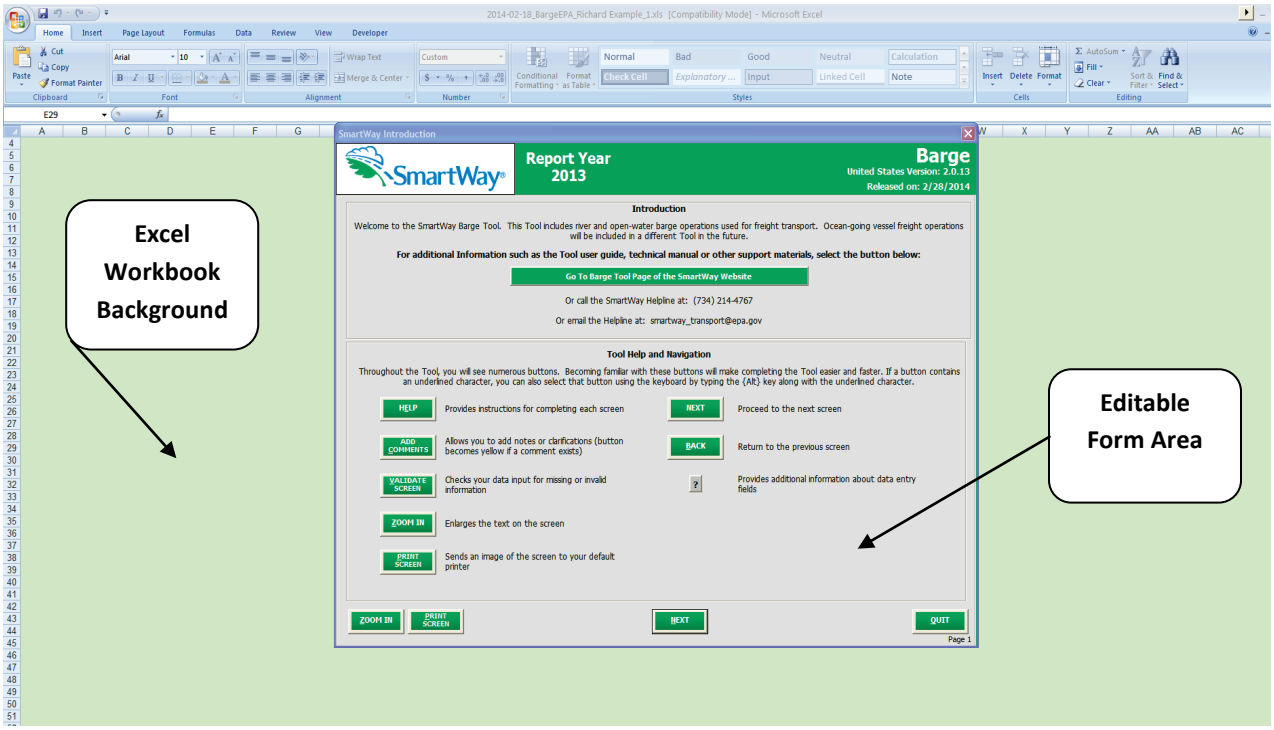


Figure 4: Barge Tool Welcome Screen

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

Security Settings for Excel 2007 Users

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

1) Save the Tool to your computer; and,

2) Open the file, and select the "Options…" button that appears after the Security Warning just below the menu bar (**Figure 5**). Detailed instructions are also provided on the screen itself.

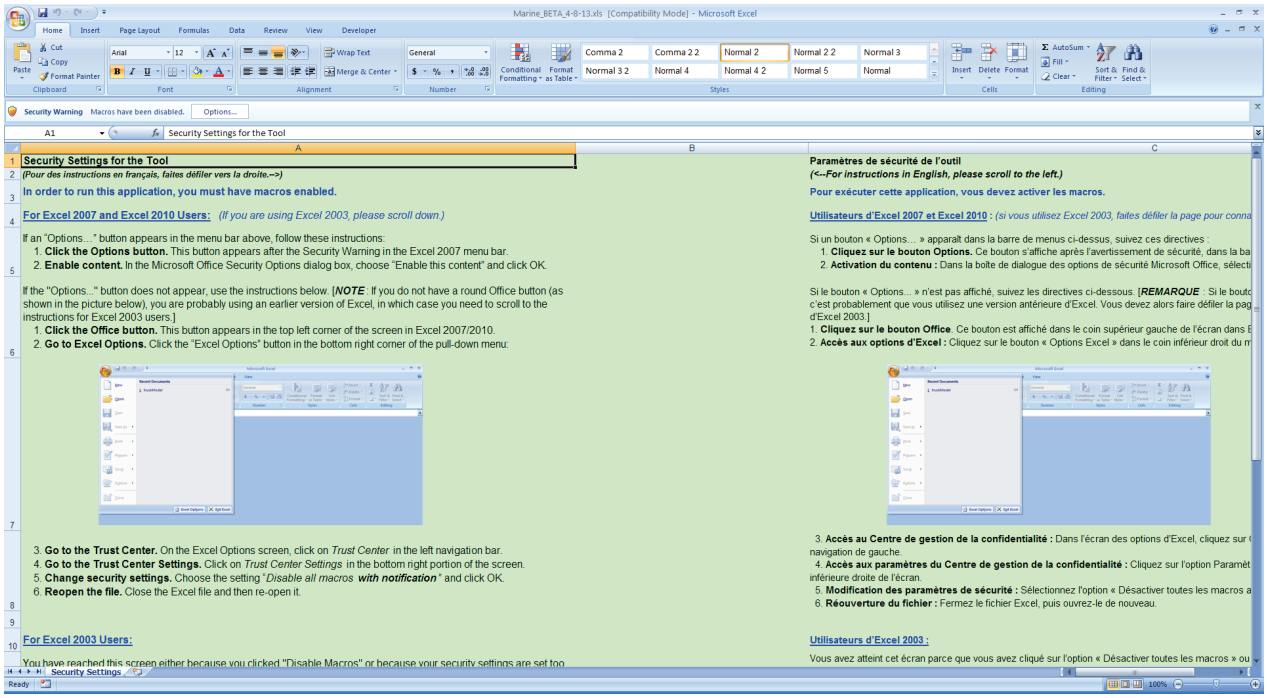


Figure 5: Security Warning Screen

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

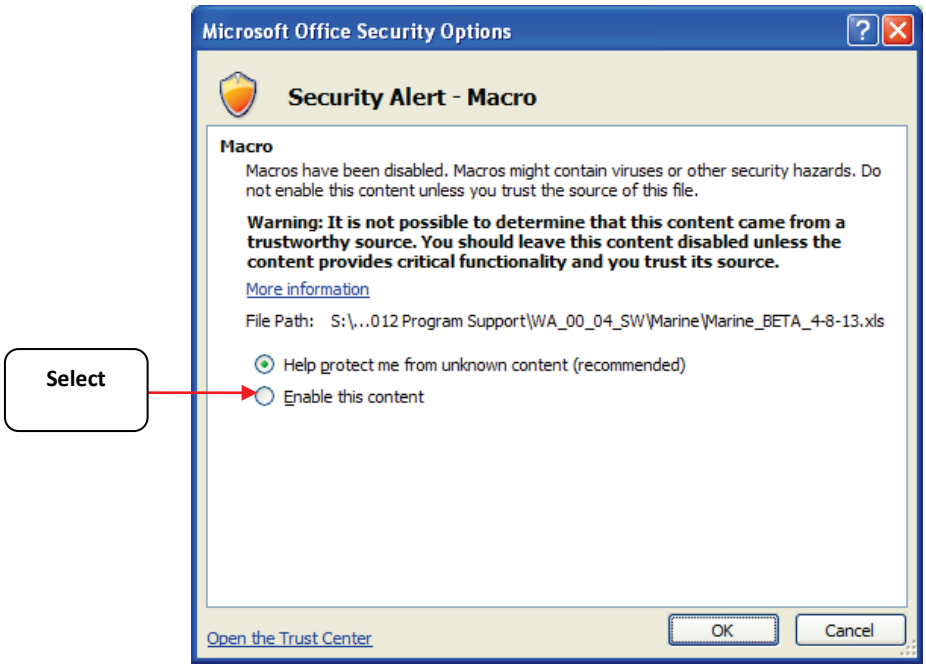


Figure 6: Security Options Dialogue Box

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

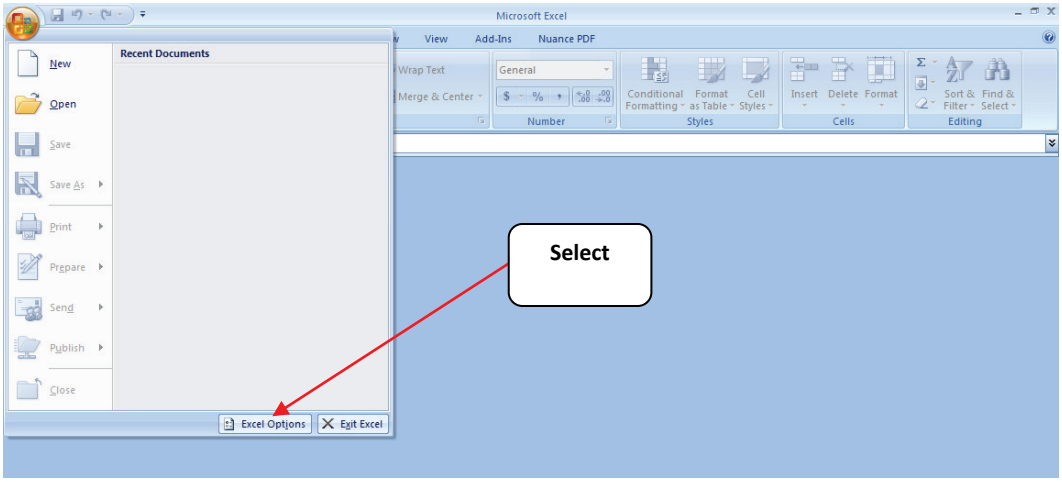


Figure 7: Excel Options Drop-Down Menu

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

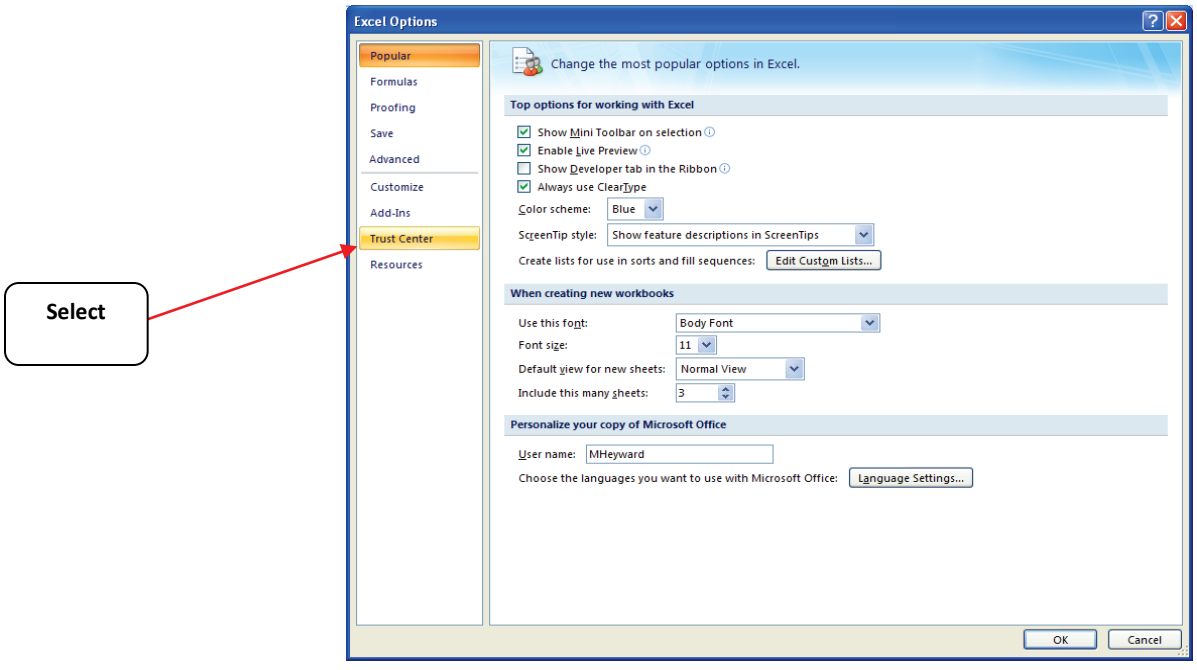


Figure 8: Excel Options Drop-Down Menu

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

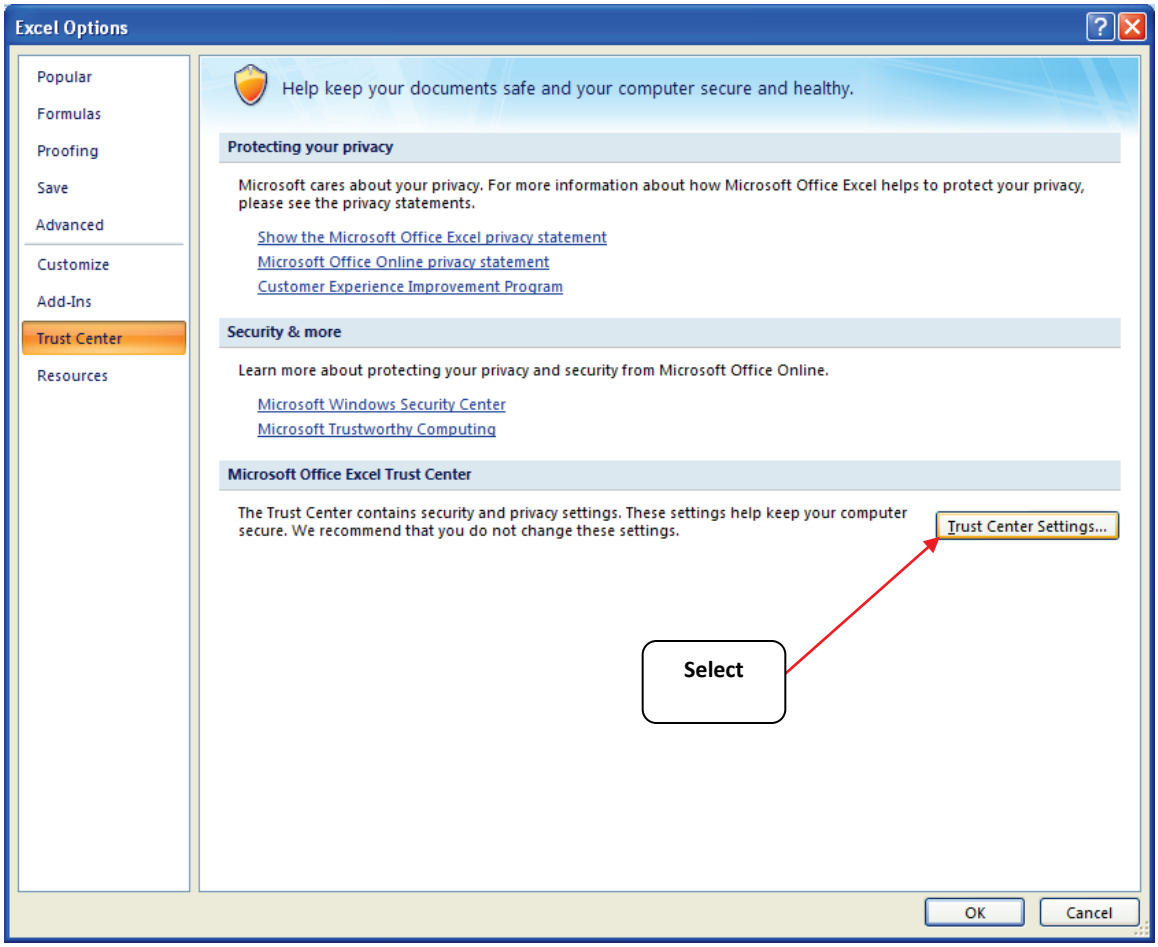


Figure 9: Trust Center Settings Screen

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

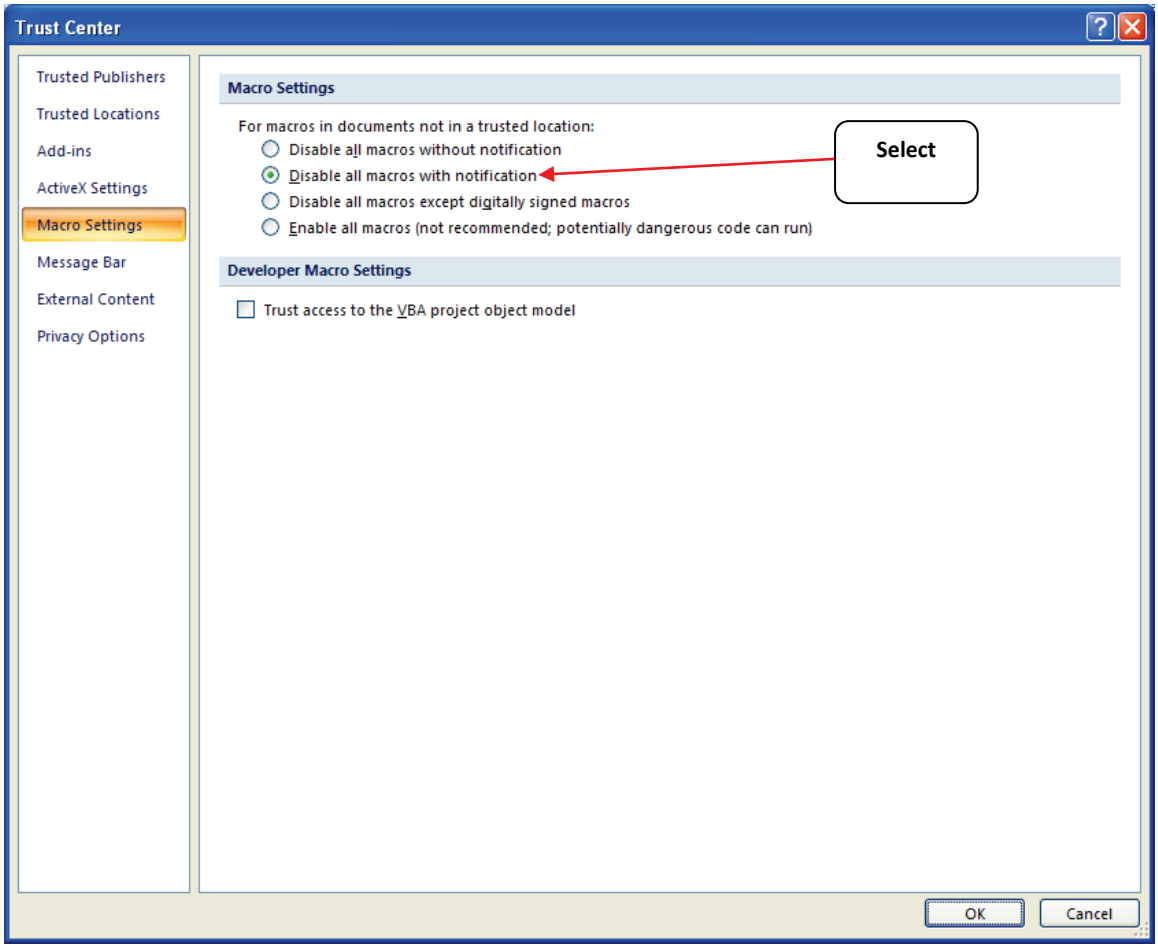


Figure 10: Macro Settings Screen

Security Settings for Excel 2010 Users

The default settings for Excel 2010 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.

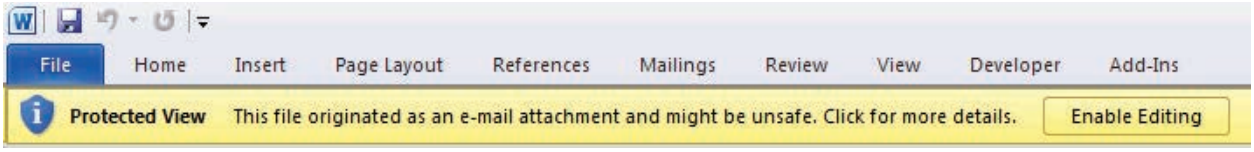


Figure 11: The Enable Editing Button

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.

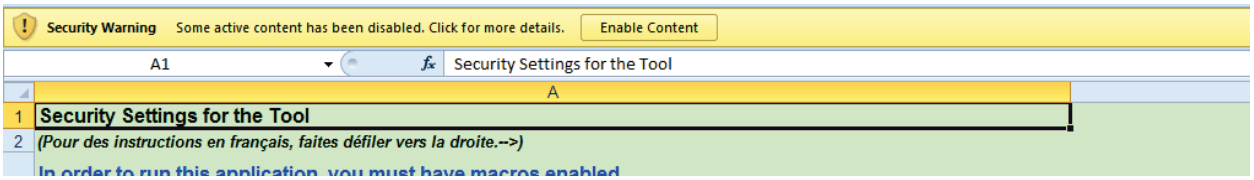


Figure 12: Security Warning Popup

If, at this point, the Tool does not open, review the "Software and Hardware Requirements" on page 7 of Part 1 of this series. 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 13**):

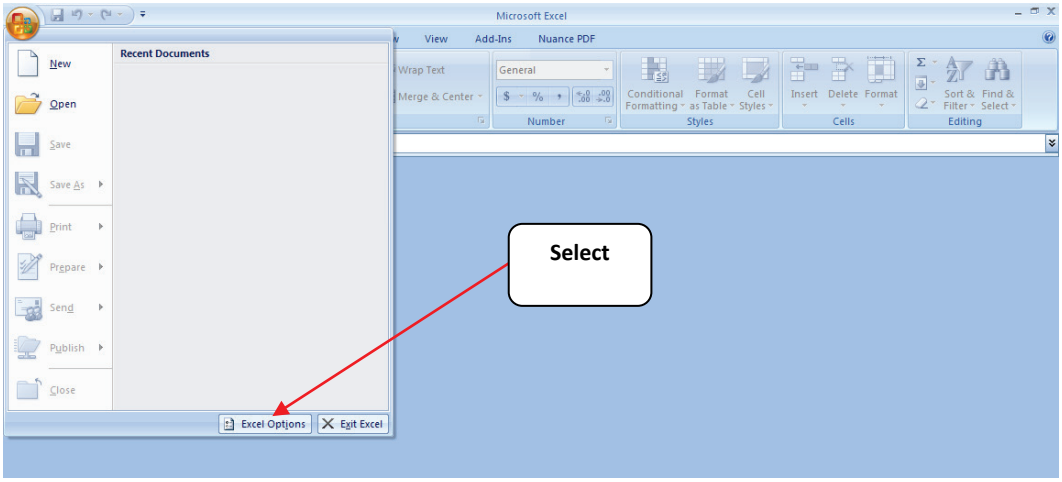


Figure 13: Excel 2010 Options Drop-Down Menu

On the Excel Options screen, select **Trust Center** in the left navigation bar (**Figure 14**):

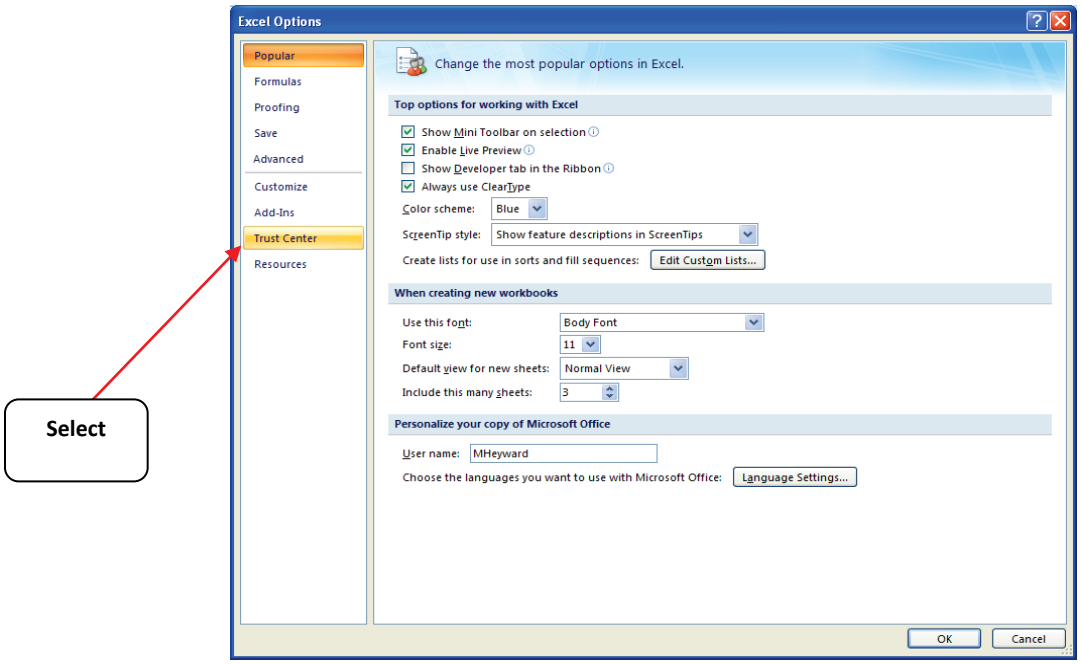


Figure 14: Excel 2010 Options Drop-Down Menu

When the Trust Center options display opens, select **Trust Center Settings** in the bottom right portion of the screen (**Figure15**):

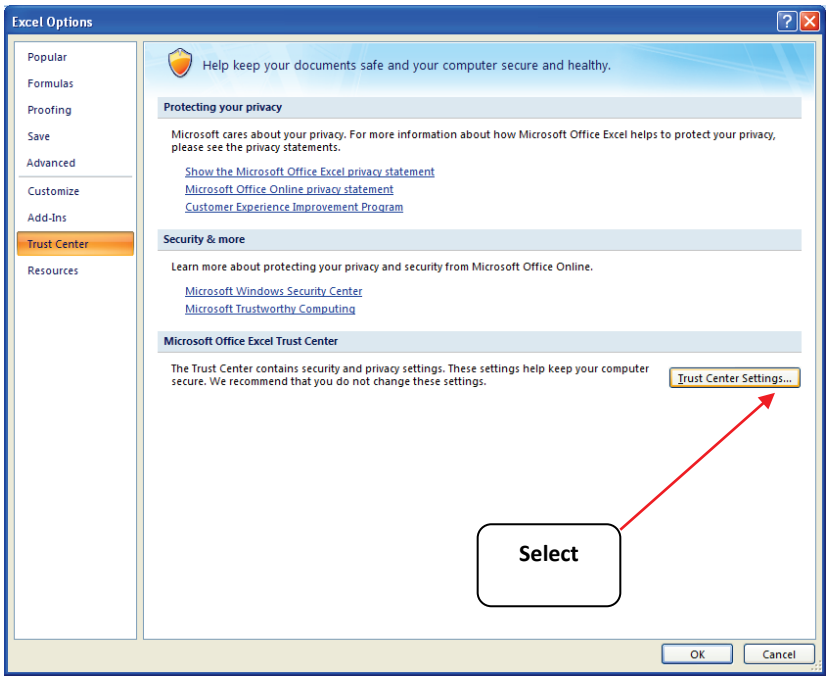


Figure 15: Trust Center Settings Screen

Choose the setting “Disable all macros with notification” (**Figure 16**) and select **OK**.

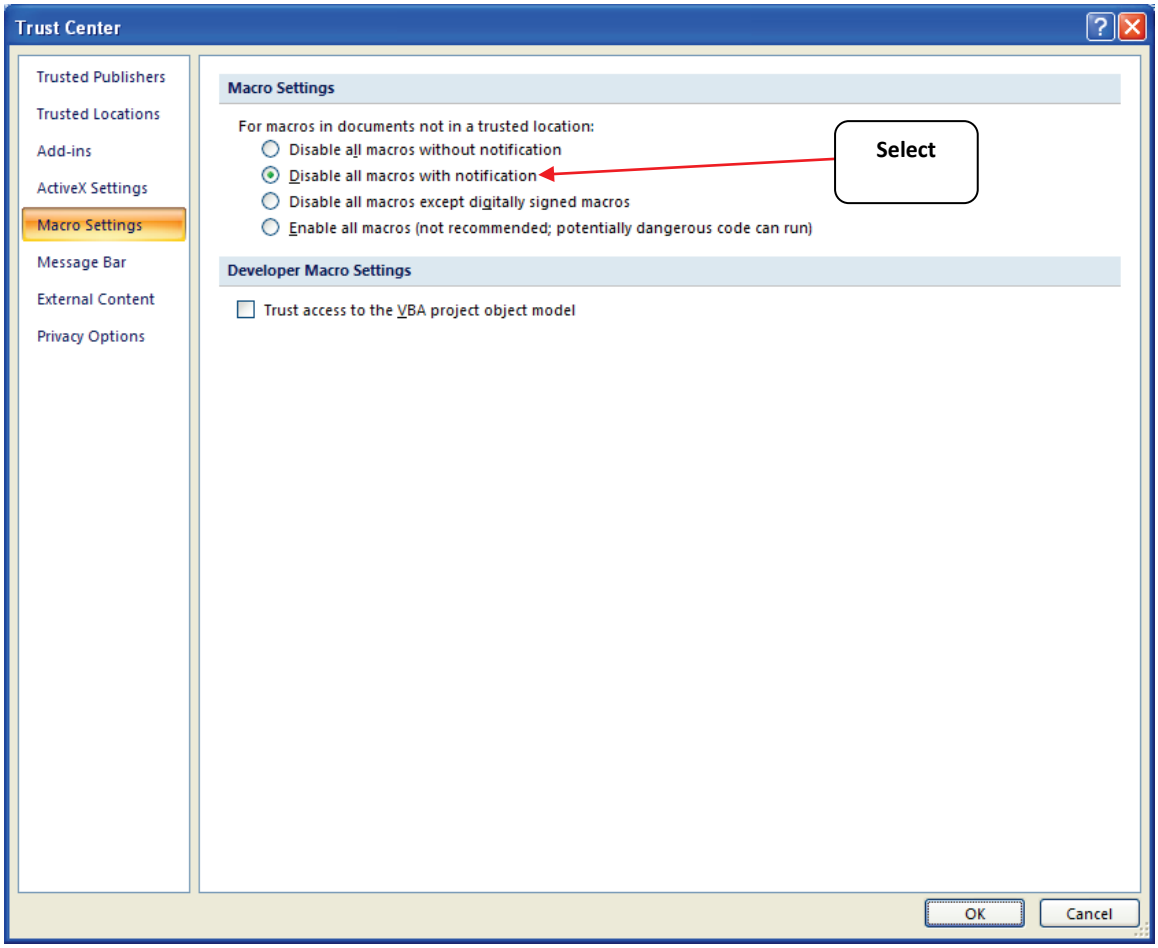


Figure 16: Macro Settings Screen

Basic Organization of the SmartWay Barge Tool

Understanding the Tool Format and Structure

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

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

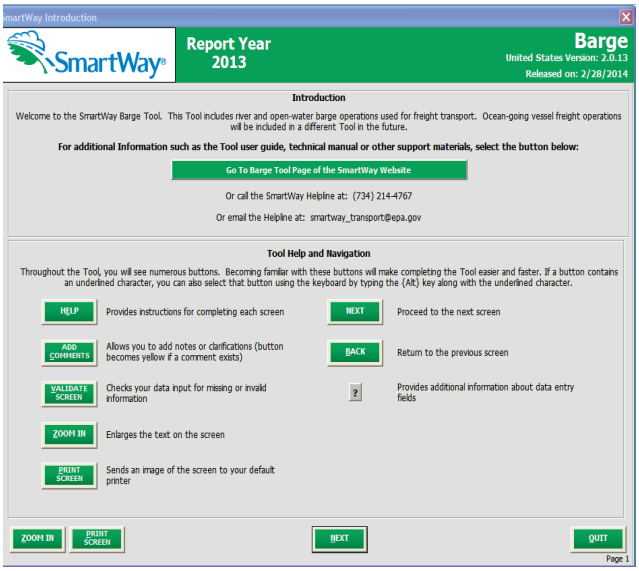


Figure 11: Opening Screen of Barge Tool

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

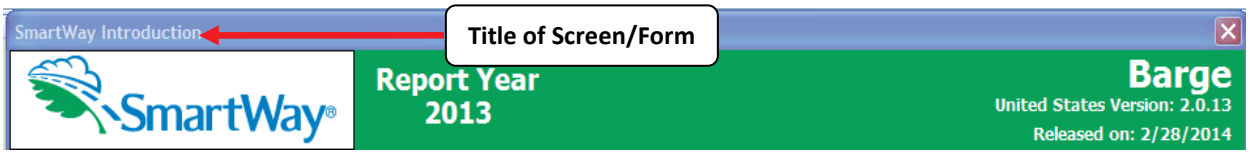


Figure 12: Screenshot of Title of Screen/Form

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



Figure 13: Screenshot of Button Link in the Tool

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

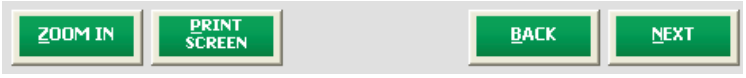


Figure 14: Screenshot of Selected Navigation Buttons in the Tool

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

Reviewing the Introductory Screens

Before you reach your data entry section of the Tool, you will move through three introductory pages that allow you to review the basics of participation in SmartWay for companies transporting freight via barge:

- **The "SmartWay Introduction" Screen**
- **The "SmartWay Partnership Annual Agreement" Screen**
- **The "Required Information" Screen**

The features of these three screens are described below.

The "SmartWay Introduction" Screen

The **SmartWay Introduction** screen is the first window that appears when the Tool is opened (**Figure 21**). This screen contains a button linking to the SmartWay website where you can view and download additional information about the Program, the Tool, and the technical basis for the calculations in the Tool.

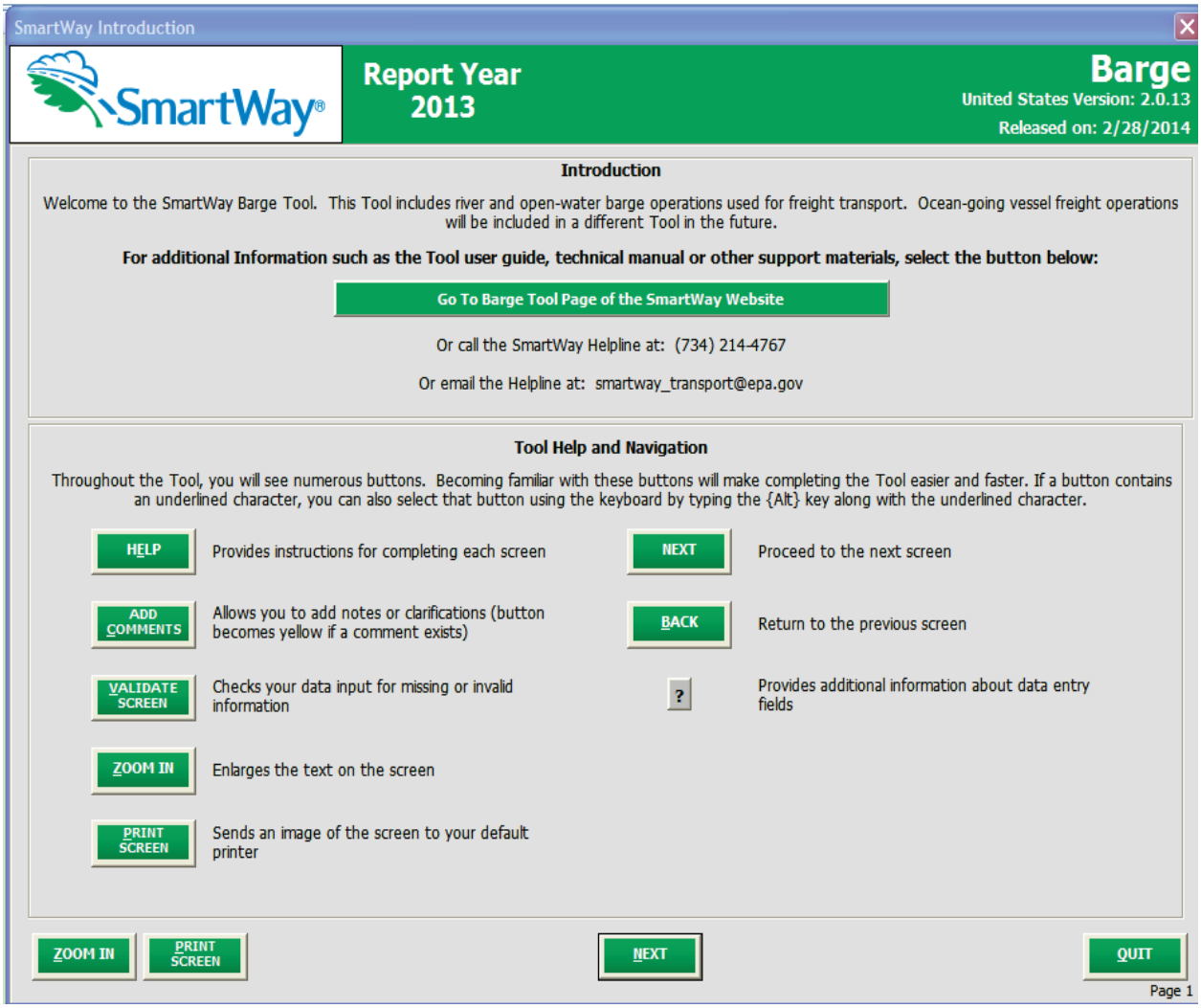


Figure 15: SmartWay Introduction Screen

The "SmartWay Partnership Annual Agreement" Screen

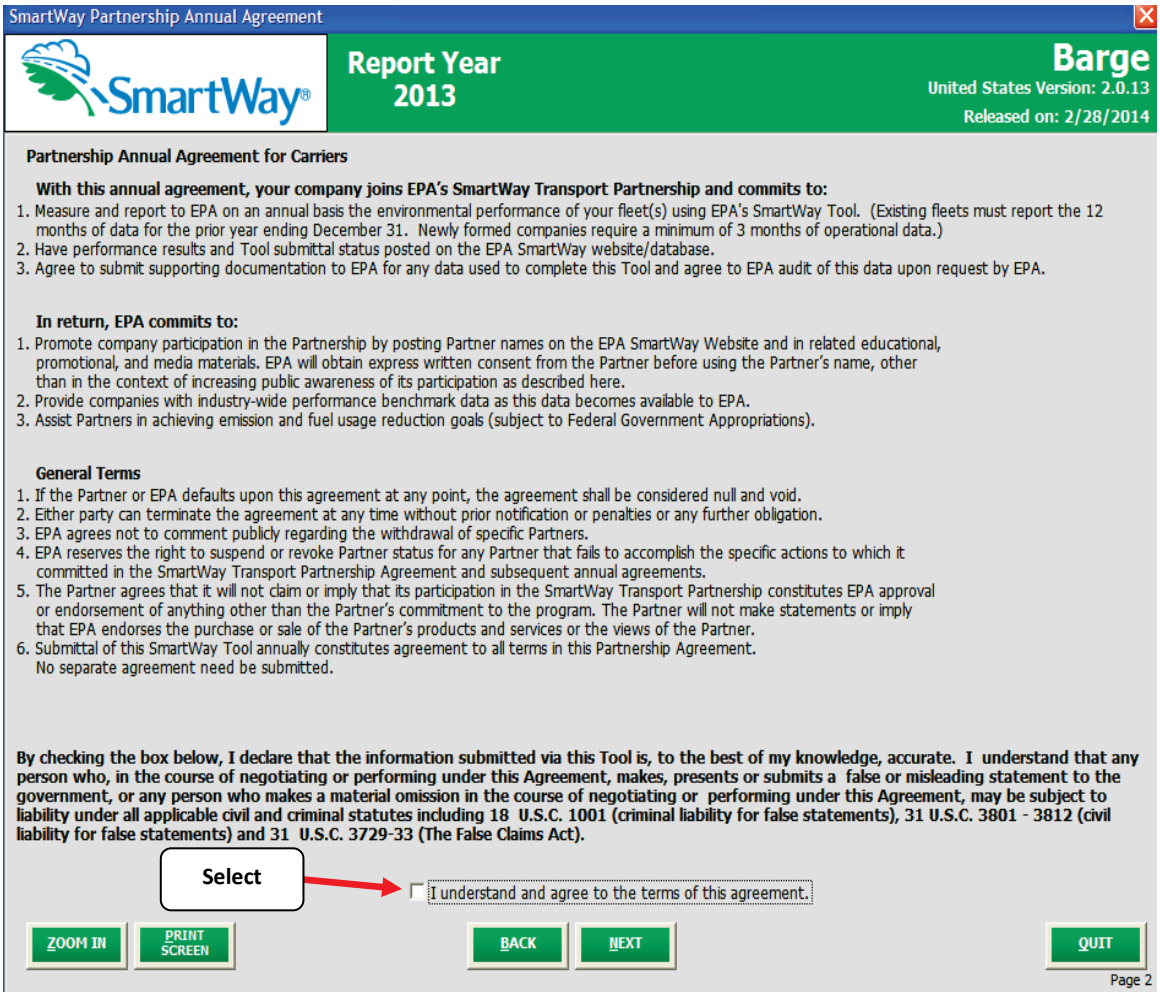


Figure 16: SmartWay Partner Agreement

After selecting the 

button on the **SmartWay Introduction** screen, the **SmartWay Partnership Annual Agreement** will appear. This screen replicates the agreement language found in Part 1 of this users guide series.

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

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

SmartWay Barge Tool submissions are due on an annual basis; therefore, when you submit your Tool each year, this will constitute your renewal of your Partnership Agreement. **Failure to send your annual**

Tool update will constitute a violation of the terms of the Agreement and will result in immediate removal of your company name/fleet from the SmartWay Partner List.

The "Required Information" Screen

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

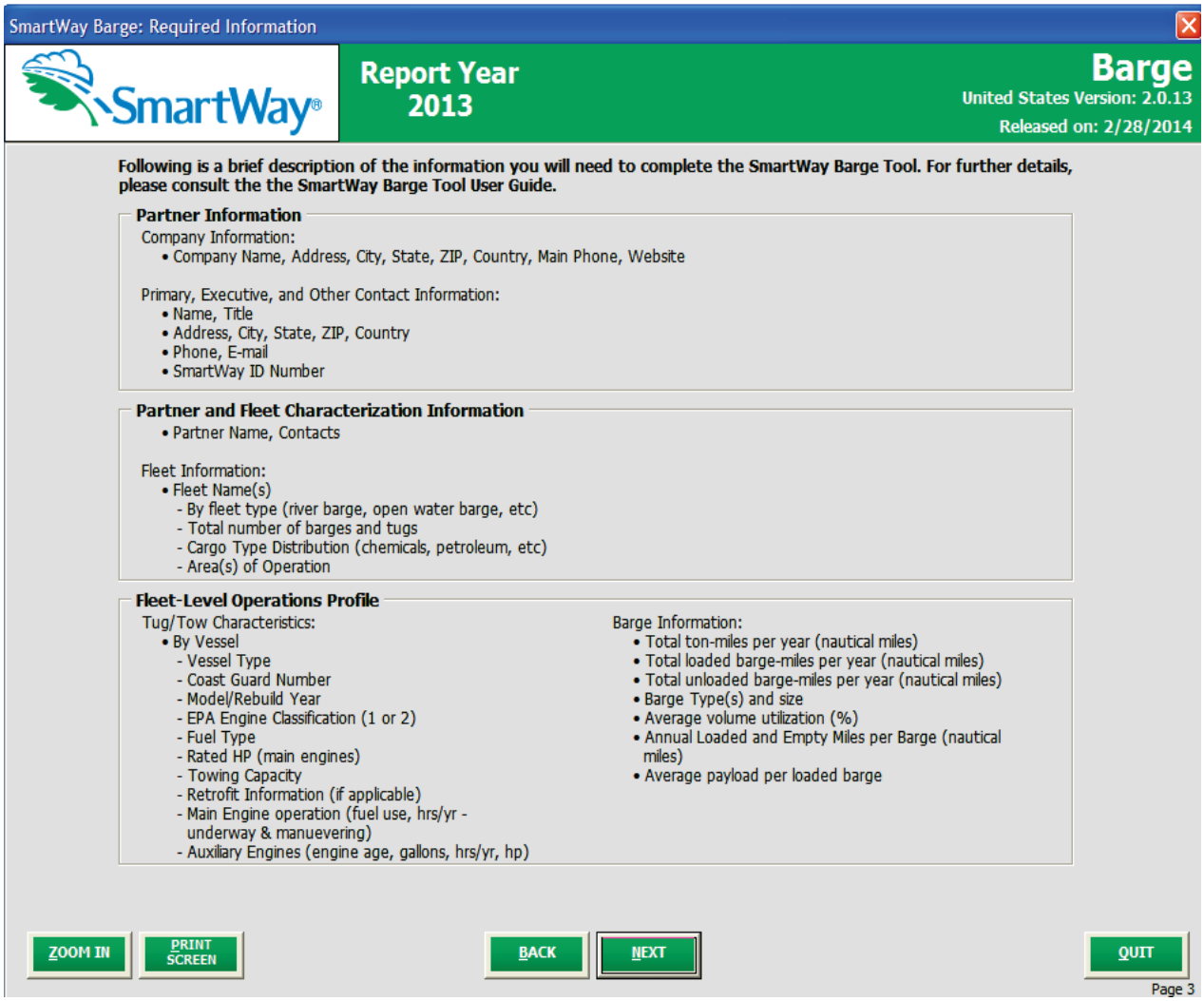


Figure 23: Summary of Required Information

Once you have navigated through the three introductory screens, you will be taken to the SmartWay Barge Tool **Home** screen.

Navigating the "Home" Screen

Figure 24 displays the layout of the **Home** screen.

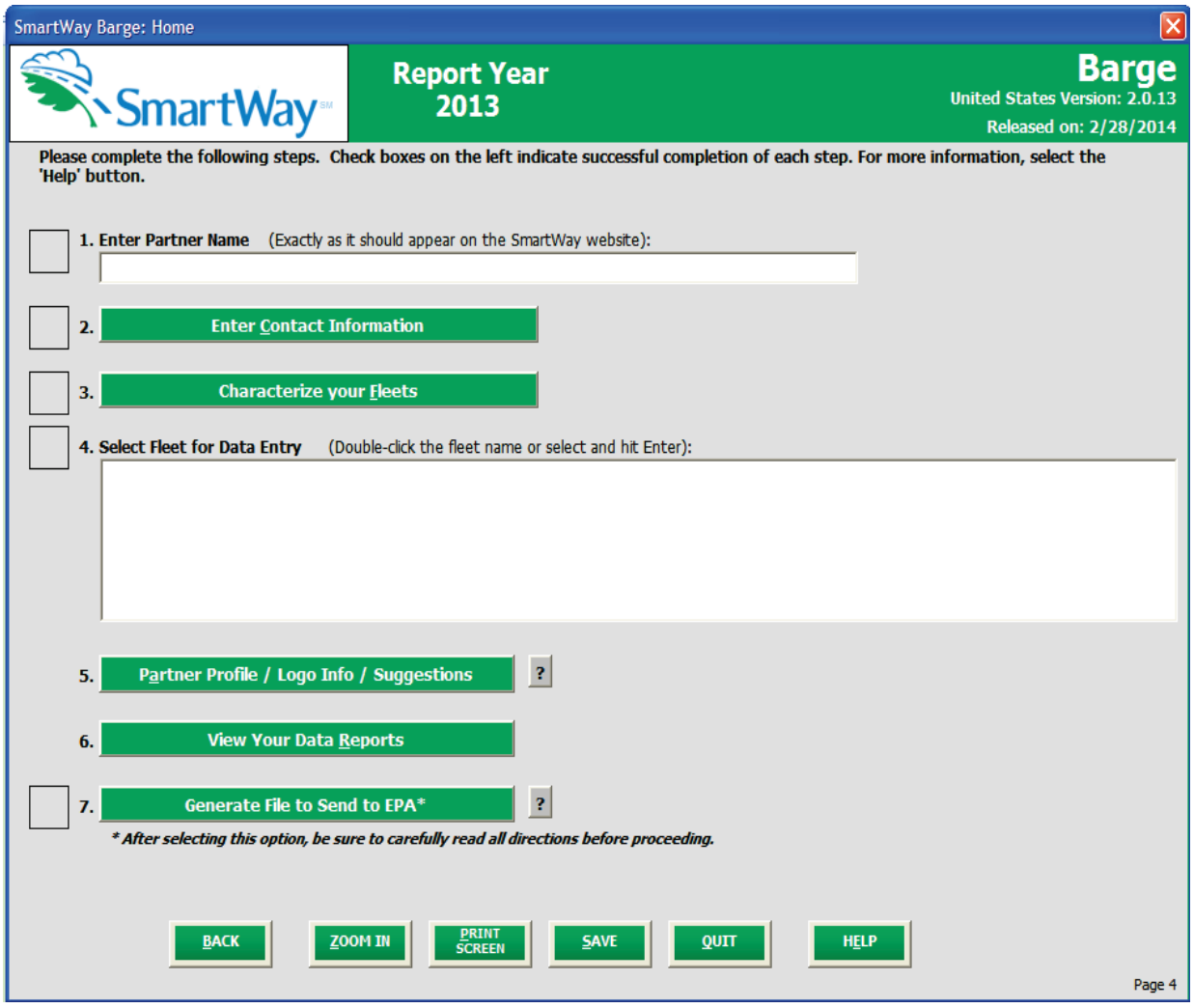


Figure 24: Main Tool Navigation or "Home" Screen

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

- Specify your Partner Name;
- Fill out company contact information;
- Characterize your fleet(s) and create your blank data entry forms;
- Enter the required data for each fleet;
- View results of your data entry;
- Provide additional optional information and obtain Logo information; and,
- Create final file to submit to EPA.

There are seven sections on the **Home** screen. With the exception of the first, each section links to additional screens or worksheets within the Tool which are described below:

- **Enter Partner Name (data field):** Specify your company's Partner Name, exactly as you want it to appear on the SmartWay website.
- **Enter Contact Information (button):** This button takes you to a screen that asks for general company contact information, a primary SmartWay point of contact, and an executive-level contact. Additional contacts may also be included.
- **Characterize your Fleets (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.
- **Select Field for 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.
- **(Optional) Partner Profile/Logo Info/Suggestions (button):** Here you can provide information about your company's environmental accomplishments, learn about SmartWay Logo terms and requirements, and give EPA feedback about the SmartWay program.
- **(Optional) View Your Data Reports (button)**: Here you can view final summaries of your data including all data inputs, fleet performance summaries, and a summary of comments you have entered.
- **Generate File to Send to EPA (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). 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.

Entering Your Data

With the exception of Section 1, clicking on the buttons or list items in Sections 2 through 7 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 must be completed in order, and comprise all the steps needed to complete your SmartWay Barge 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.

Saving Your Data

At any stage of the process above, you can save the data you have entered by selecting the 

button that appears at the bottom of all screens (including the **Home** screen). We recommend saving your data frequently if you are entering information for large numbers of fleets.

Validating Your Data

The SmartWay Carrier Tools include a variety of range checks and other validation rules designed to help identify potential data entry errors and/or unusual data values. In order to identify potential problems with your data entry and ensure the highest quality in your data submission, we highly recommend selecting the "Validate Screen" button at the bottom of each screen after completion of each data entry screen. The Tool will then identify any potential data problems on that screen for you to modify or to provide a text explanation. Please refer to the **Barge Tool Technical Documentation** available from the Barge Tool page of the SmartWay website, for details regarding the validation ranges used in the Tool.

[NOTE – THIS VERSION OF THE BARGE TOOL ONLY HAS LIMITED VALIDATION CHECKS AT THIS TIME. As more data is acquired through Partner submissions, additional validation rules and a variety of range checks will be included in future versions of the Barge Tool submissions.]

Reviewing Your Data

Each screen within the Tool has a 

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 

button, identify the report of interest using the Reports Menu, and print them out for review. The data reports provided by the Barge Tool are discussed further in this guide.

Entering Your Data

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

Section 1 Data Entry: Enter Partner Name

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 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 Barge 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.

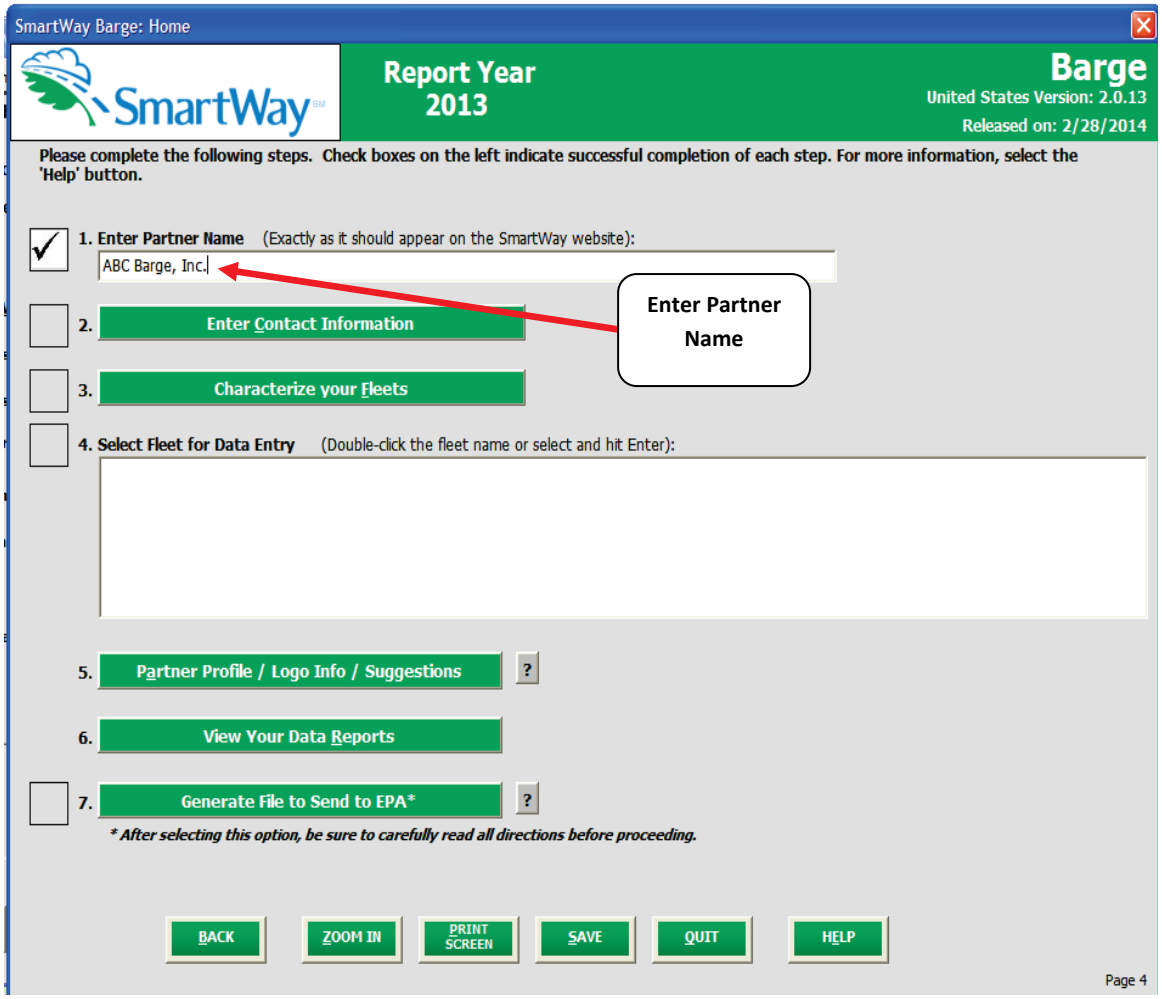


Figure 25: Enter Partner Name on Home Screen

Section 2 Data Entry: Enter Company and Contact Information

PLEASE REFER TO **WORKHEET #1: Company Contact Information** from Part 2 of this guidance to complete this section of the Barge Tool.

From the **Home** screen, select the button that says "Enter Contact Information".

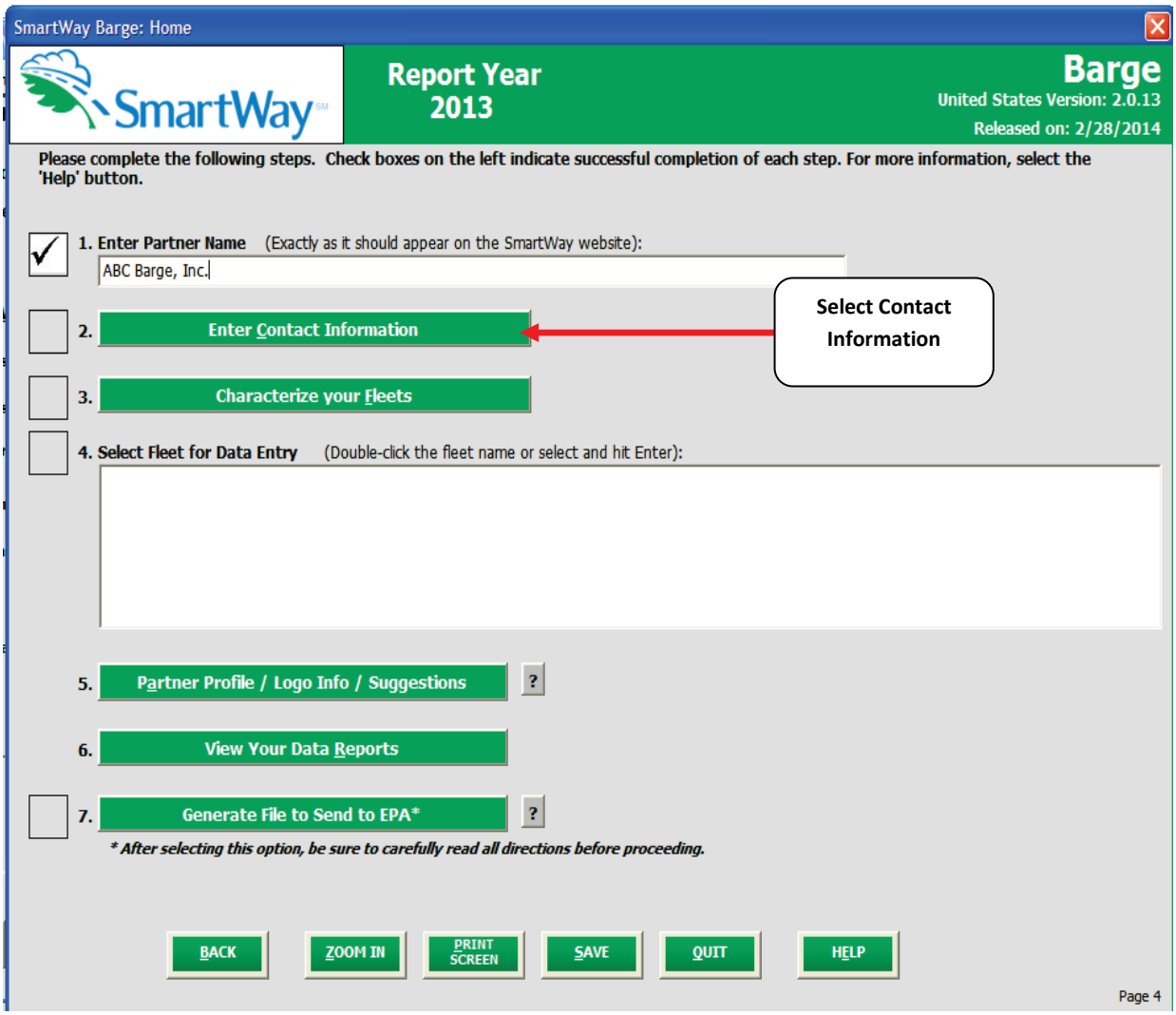


Figure 26: Enter Contact Information Button on Home Screen

You will then be taken to the **Contact Information** Screen. The Partner Name entered on the **Home** screen will appear automatically at the top (see arrow in **Figure 27**). On this screen you establish the following details about your company:

1. **Partner Information** includes details about the company location, phone numbers, and web address.
2. **The Primary Contact** is the person assigned to work directly with EPA regarding timely and accurate Tool submission, and is responsible for assembling 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 Primary Contacts may need to add SmartWay/EPA to their preferred list of trusted sources.)

3. **The Executive Contact** is the company executive who is responsible for agreeing to the requirements in the SmartWay Partnership Annual Agreement, overseeing the Primary Contact (as appropriate), and ensuring 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.
4. **Other Contacts** include any other company representatives that have a role in your participation in SmartWay. These may include representatives from other business units, media/public relations, staff, or anyone who has responsibility for specific fleets beyond the person listed as the Primary Contact. This is especially important as you will be identifying individual fleets in the Tool and will be assigning contacts to each fleet separately.

NOTE: The Primary and Executive Contact information is mandatory and these must be different people. Duplicate contacts are not allowed to ensure EPA has access to at least two people for Tool submission follow-up.

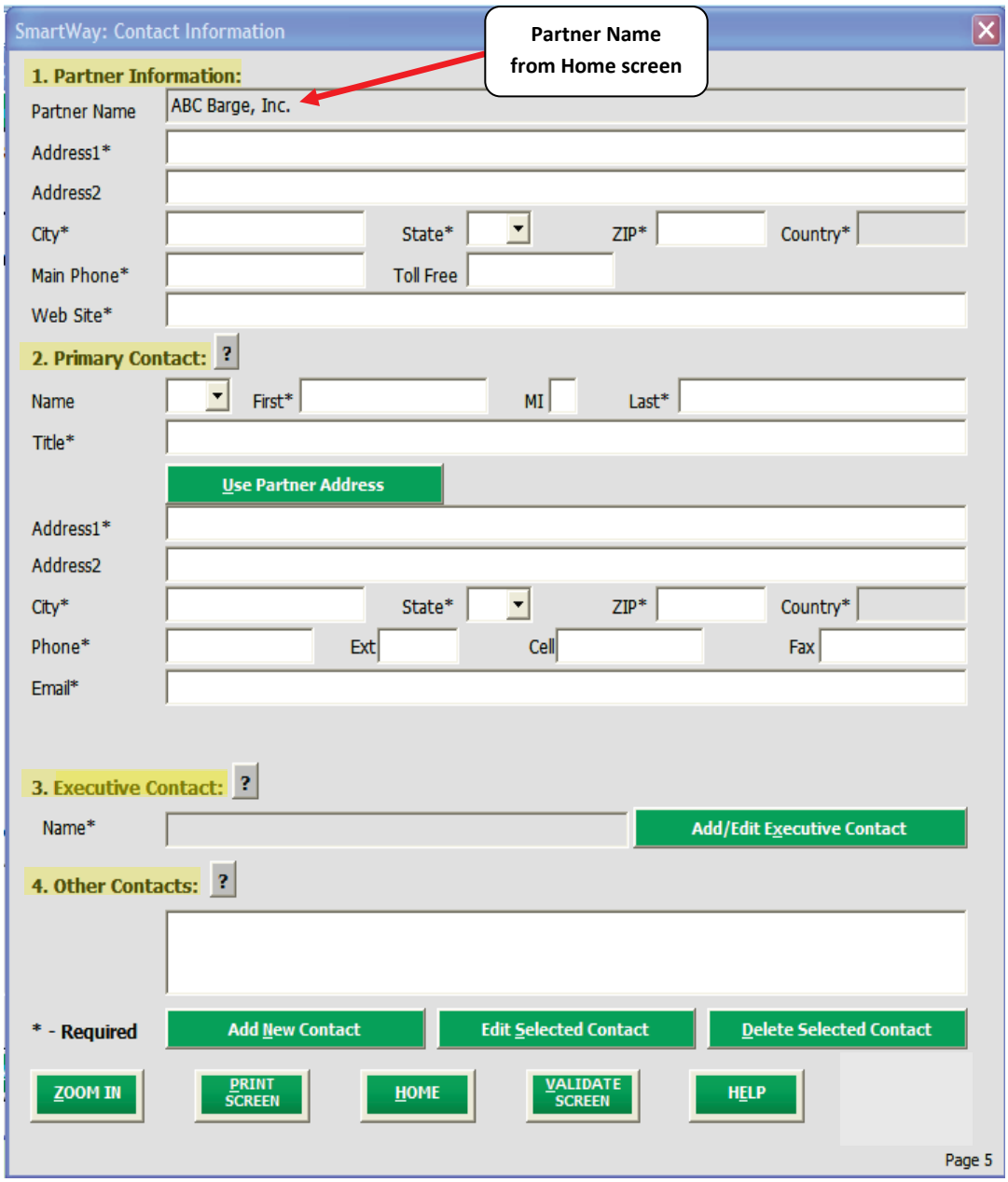


Figure 27: Blank Contact Information Screen

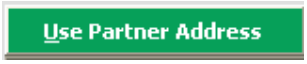
Each field marked with an asterisk must be filled out. You will not be able to submit the Tool to SmartWay without this information.

Steps for Entering Contact Information:

- **Enter the Partner Information** in section #1.

- **Enter the Primary Contact** information in section #2.

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

  If the **Primary Contact** shares the same address as the company, you may select the 

button to auto –populate the address section of this record.

- **Enter the Executive Contact** information in section #3 by selecting the 

button to the right; enter the required data.

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

- **Enter Other Contacts** (if applicable) in section #4 by selecting the 

button. A new contact field will appear, labeled **Other Contact Information** (not pictured).

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

  NOTE: In some cases, companies with multiple 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. Also, anyone who is the **Primary Contact** for a particular fleet/division (who is not either the **Primary** or **Executive Contact**) will need to be entered as an **Other Contact**. This will be important in Step 3 (**Fleet Characterization**).

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

button.

You can remove an existing contact by highlighting the contact and then selecting the 

button .

NOTE: You must supply *at least two unique contacts* on the Contact screen and the Primary Contact and the Executive Contact must not be the same person, to ensure EPA has access to at least two people for Tool submission follow-up.

To make sure you have filled out all required contact information, select 

at the bottom of the screen. If any information is missing, a dialogue box will appear informing you what additional information is required.

When finished select the 

button to return to the **Home** screen and go to Section 3.

Section 3 Data Entry: Characterize your Fleets

PLEASE REFER TO **WORKHEET #2: Fleet Characterization** of Part 2 of this guidance to complete this section of the Barge Tool.

Next, on the **Home** screen select Characterize your Fleets to display the **Fleet Characterization** screens. This is the section where you will define the various components of your fleets.

The **Fleet Characterization** screen is shown below:

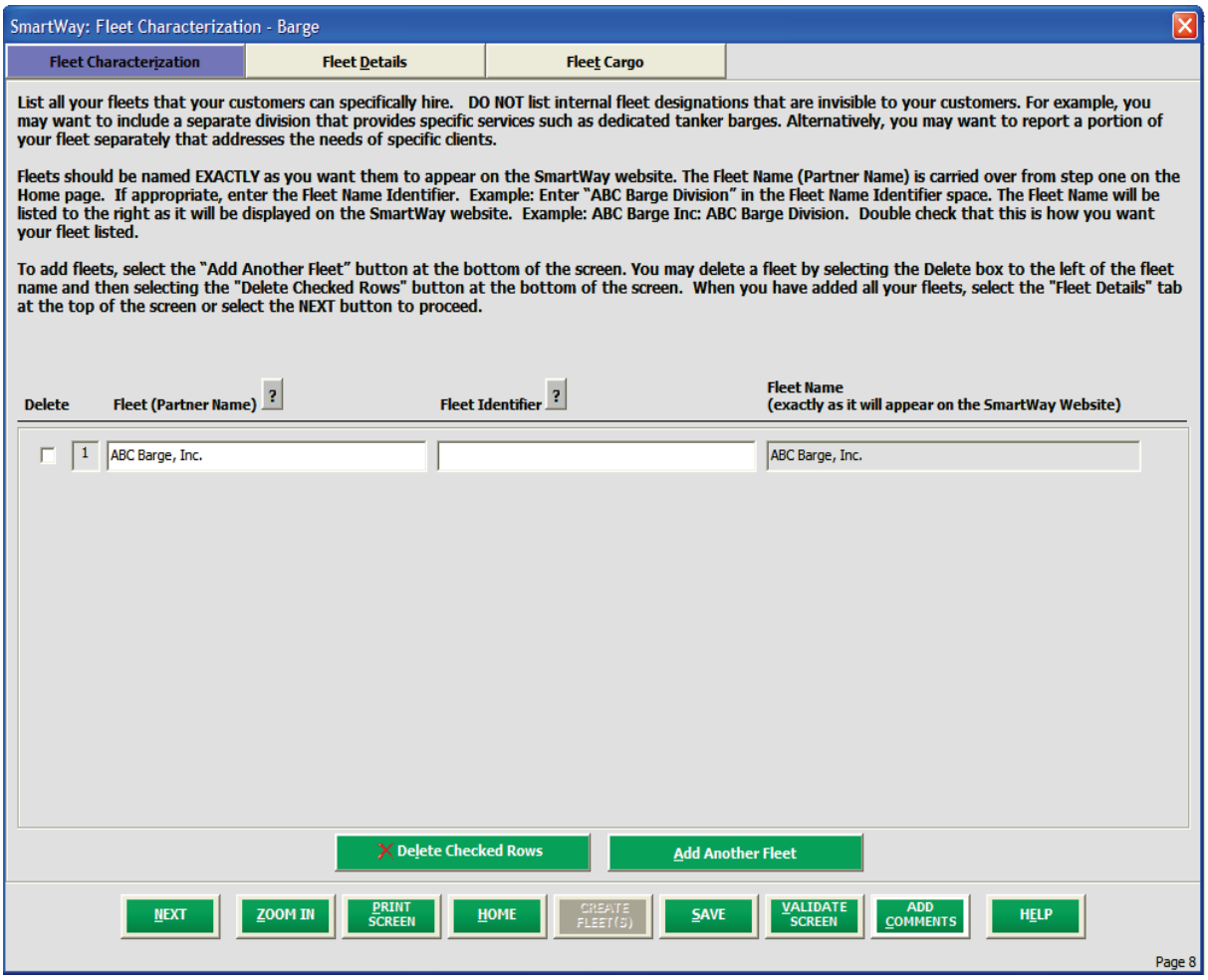


Figure 28: Blank Fleet Characterization Screen

Steps for Completing Fleet Characterization Screen:

For each fleet, you will need to specify:

- **Partner Name:** On the SmartWay website, each of your Fleet Names will begin with the name of your company. This fleet "prefix" will be whatever you enter in the **Partner Name** field on the **Fleet Characterization** screen. By default, this field is automatically populated with the first 50

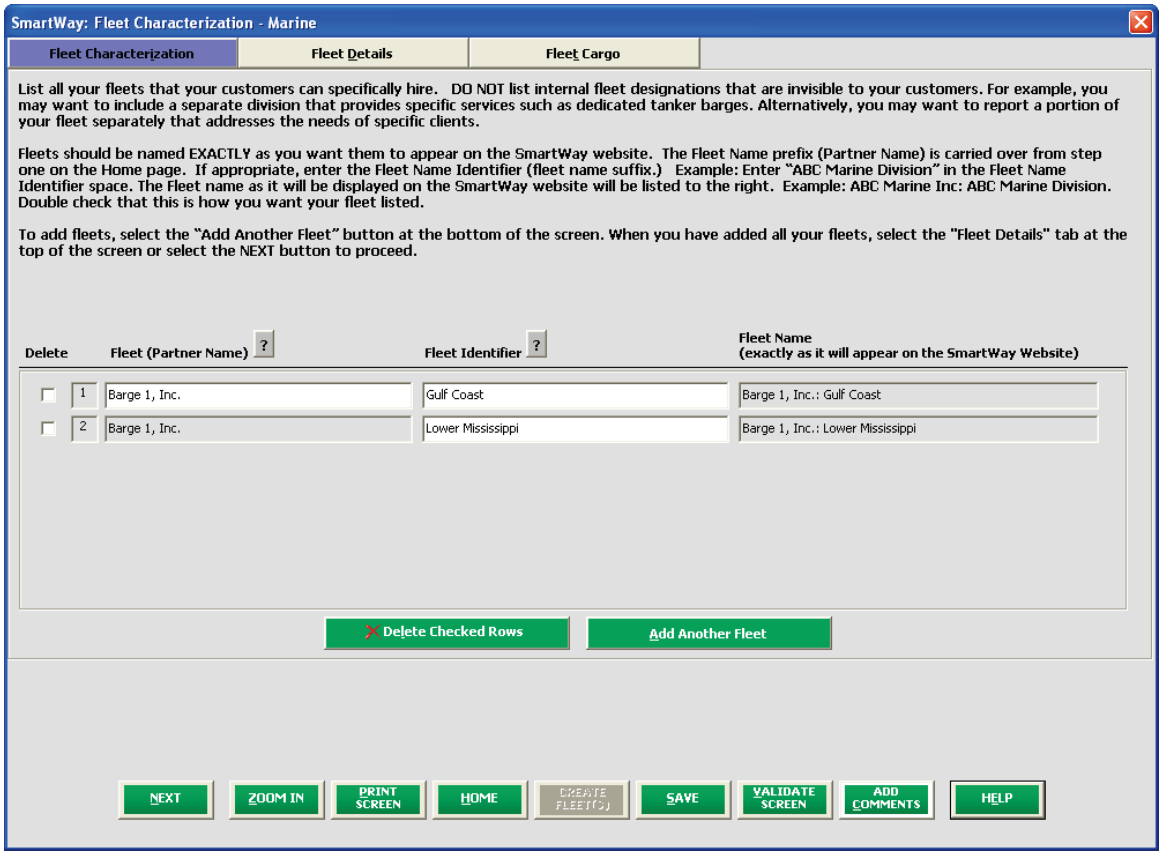
characters of the **Partner Name** that is entered on the **Home** screen. You should specify the name so that it appears EXACTLY as it you want it to show within each Fleet Name. (For example, if your company's name includes "Inc." or "Ltd.", you may choose not to include that in your Fleet Names.) Please pay special attention to proper capitalization, abbreviations, and punctuation.

- **Fleet Identifier:** Specify each Fleet Identifier exactly as you want it displayed on the SmartWay website, including proper capitalization, any abbreviations, and punctuation. Remember that it will automatically be combined with the **Partner Name** field.

Adding Fleets

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

Once you have confirmed or modified the **Partner Name** and specified the **Fleet Identifier**, the full **SmartWay Website Fleet Name** will be displayed on the screen to the right, exactly how they will be displayed on the SmartWay website.



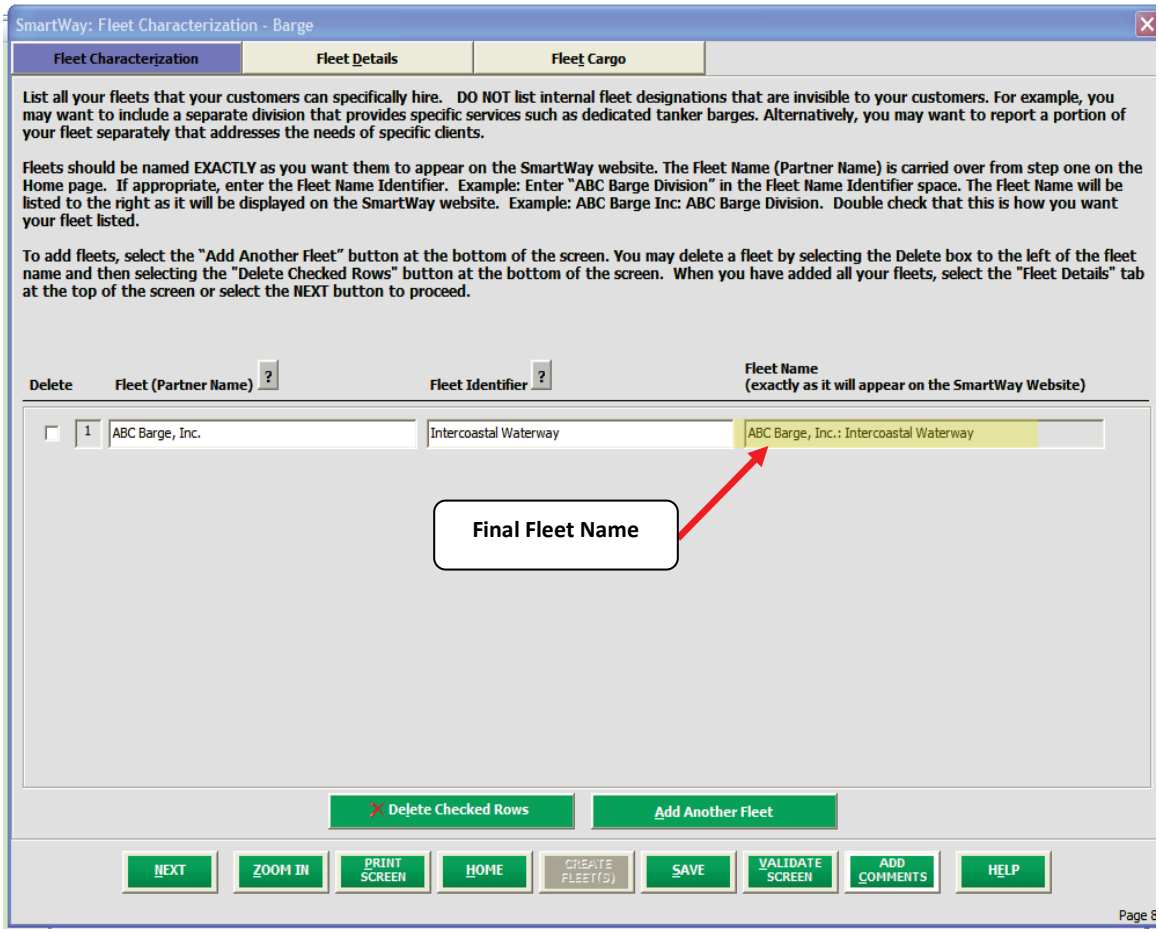


Figure 29: Example Fleet Name Definition

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

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 **Fleet Characterization** 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 (see below). 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.

Steps for Completing Fleet Details Screen

Once you have completed naming your fleet(s) on the **Fleet Characterization** screen, select the NEXT button, or click on the **Fleet Details** tab at the top of the screen to proceed. The **Fleet Details** screen will then appear with a row named for each fleet you identified on the previous screen.

For each fleet specify the type of fleet (open-water barge or river barge), the total number of barges, the total number of tugs, and the Fleet Contact for each. The Fleet Contact should be one of the contacts you already identified in the **Contact Information** section as the contact for each fleet. If a fleet has a contact for the fleet that is not already listed in the Contacts worksheet, you will need to go back to the Contact Information screen to add the required contact information.

Make sure to report ALL vessels included in your fleet, including those used for hub operations. In addition, make sure the number of barges is greater than the number of tugs. See **Figure 30** for an example.

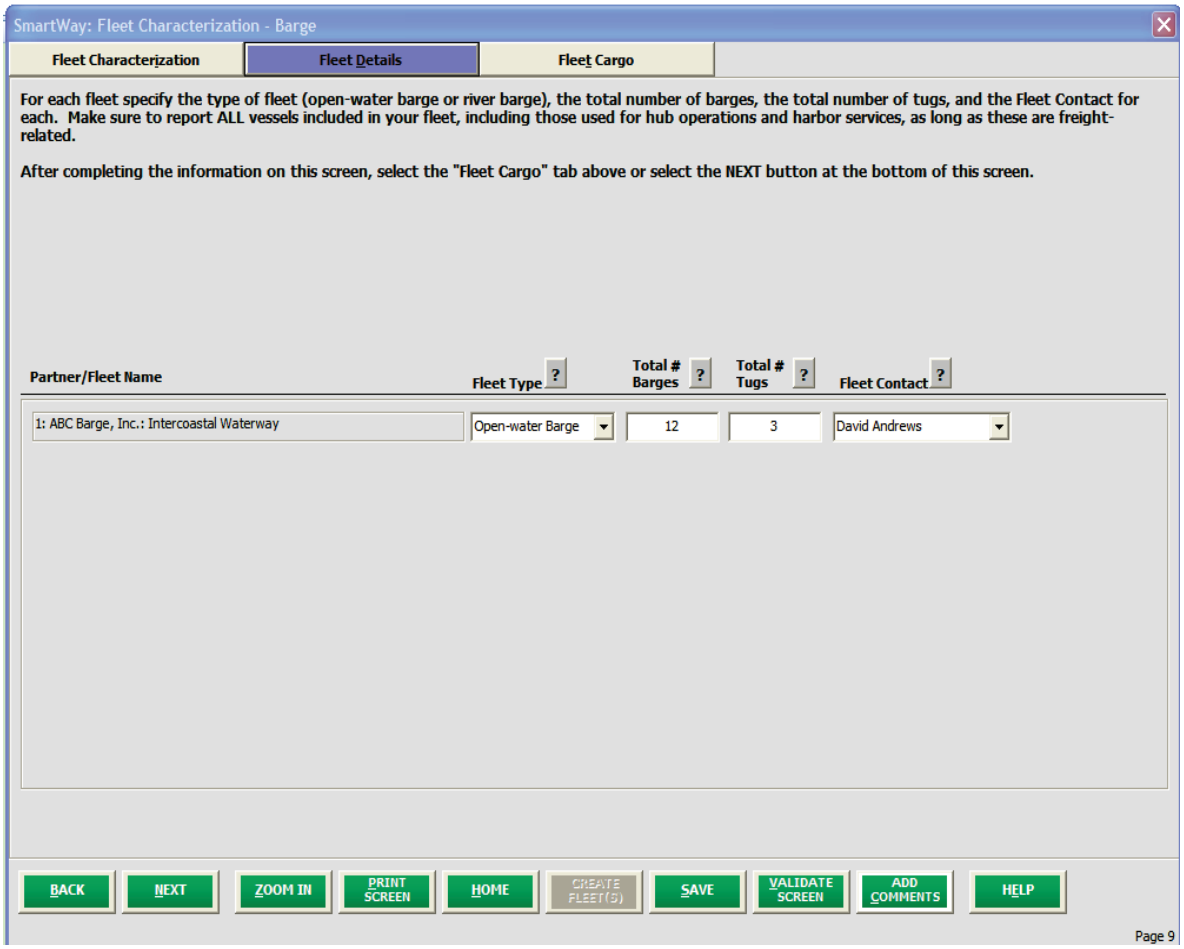


Figure 30: Example Fleet Details Screen Data Entry

After completing the information on this screen, select the **Fleet Cargo** tab above or select the 

button at the bottom of the screen.

Steps for Completing Fleet Cargo Screen

For each fleet, enter the amount of cargo shipped per year by commodity category, in short tons. Containers may be entered in TEUs by selecting TEUs from the *"Units for containers"* drop-down box. A total summation is included on the far right for your reference. If any cargo falls in the "other" category, you will be asked to add a description regarding the type of material shipped. See **Figure 31** for an example data entry screen.

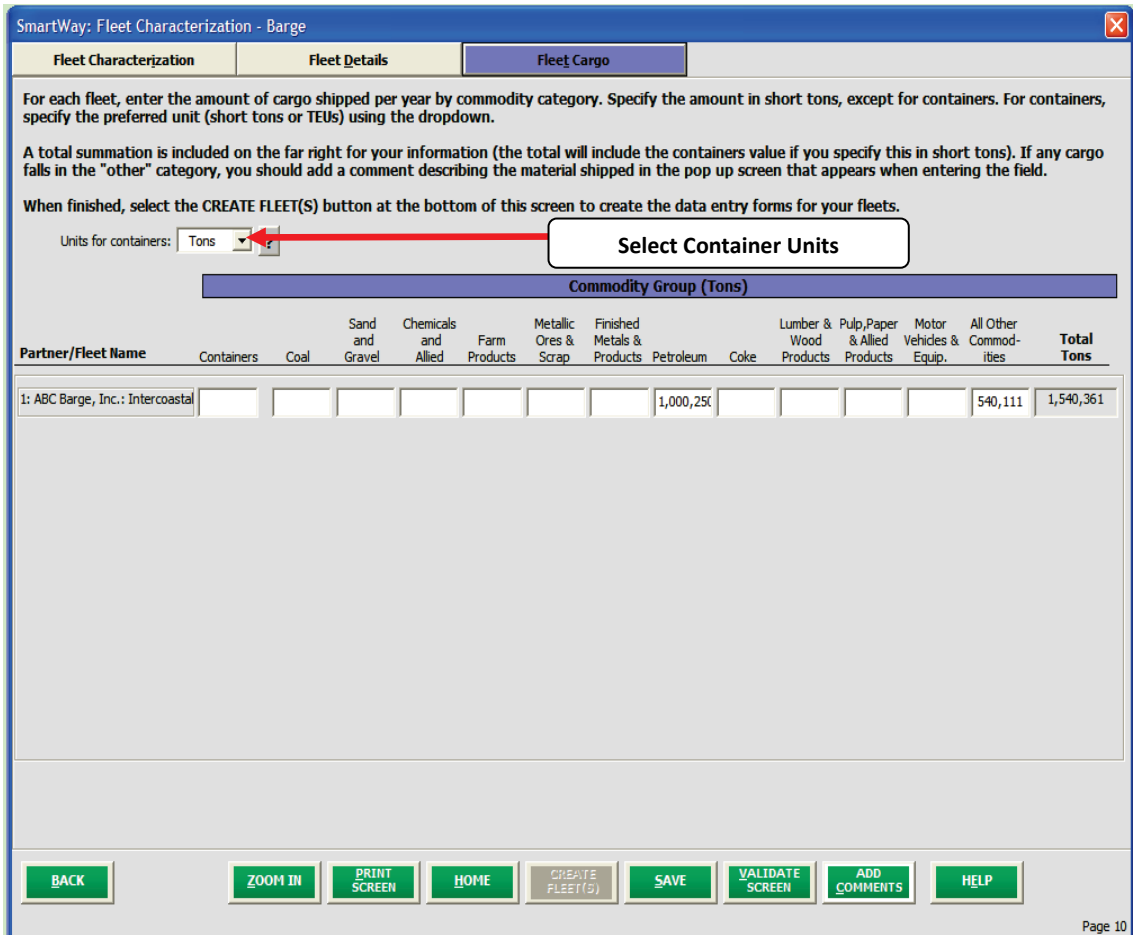


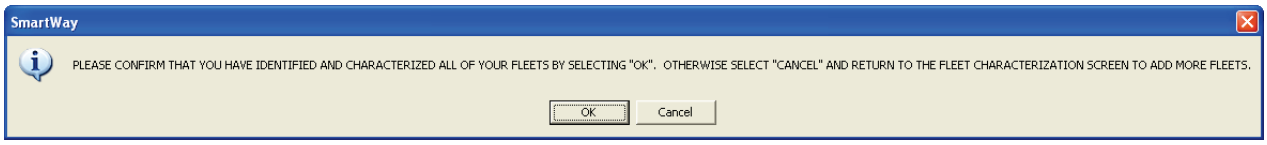
Figure 31: Example Fleet Cargo Screen Data Entry

When finished, select the 

button at the bottom of this screen to create the data entry forms for your fleets. When you select this button, the system will create blank data entry forms for each fleet you have characterized.

NOTE: After selecting the 

button you will be asked to confirm that you have identified all of your fleets (see below). Select OK to proceed or CANCEL to add more fleets.



Selecting HOME will take you back to the **Home** screen (see **Figure 32**).

Adding Comments/Notes

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

Please note the ADD COMMENTS buttons located at the bottom of the screens. These allow you to enter notes about the collection process, your assumptions and methods, data, or other information. These details could prove useful for your reviewer when you or someone else fills out the Tool next year. If comments have been added for a particular screen, the ADD COMMENTS button will be highlighted in yellow on your screen and will now read VIEW/EDIT COMMENTS to indicate to your reviewer that there are comments to be read.

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

Reviewing Fleet Status

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

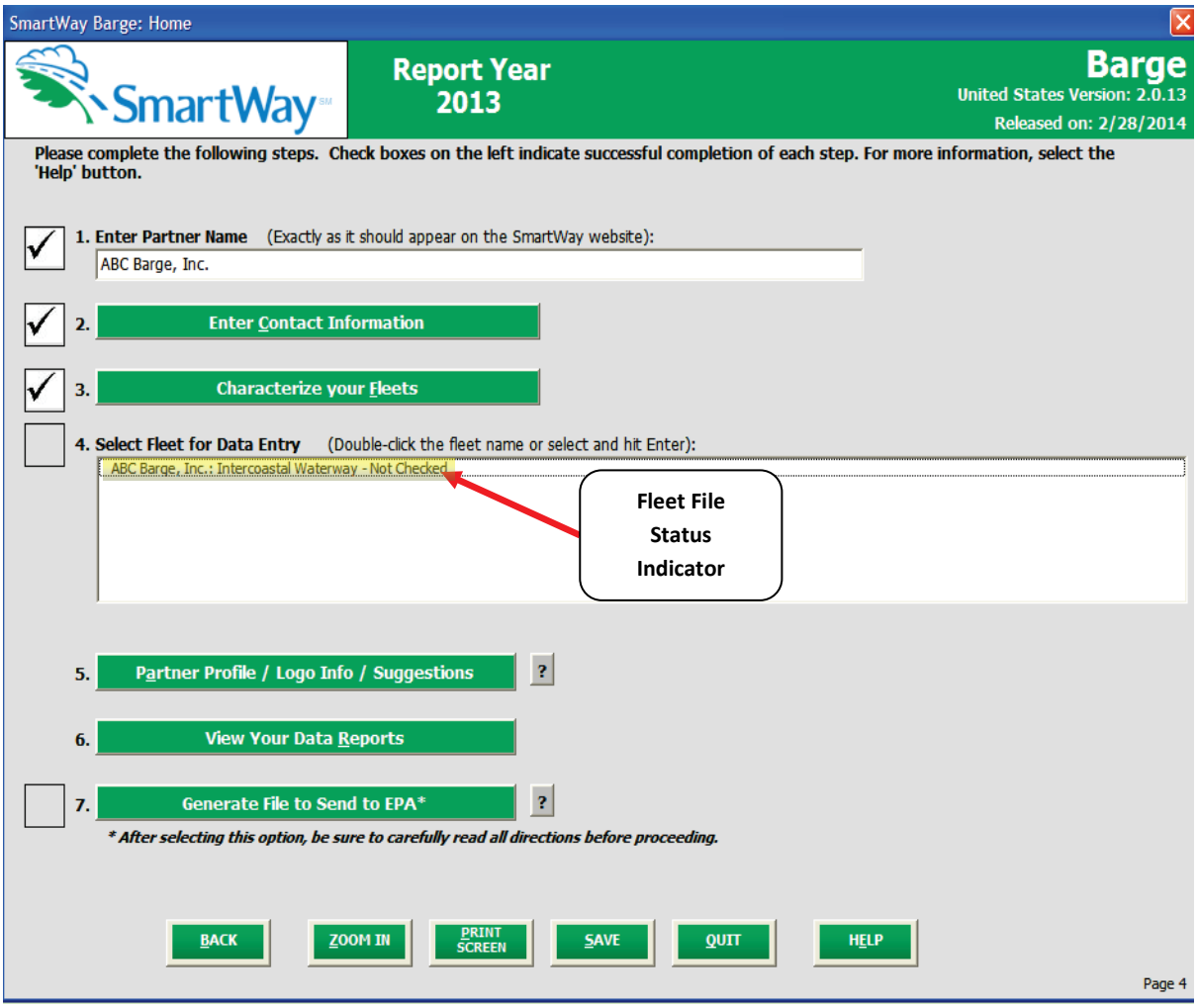


Figure 32: Home Screen – Fleet Status Prior to Activity and Fuel Data Entry

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

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

In addition to the status indicators above, you may see an "Error" qualifier. **Errors** will prevent you from generating the **Internal Metrics Reports** and must be addressed before you can submit your Tool to EPA.

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**.

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

Steps for Completing Geographic Operation Areas Screen

At this stage, you will be entering information about each fleet separately. For each fleet you will first fill out the **Geographic Operation Areas** screen, shown below in **Figure 33**.

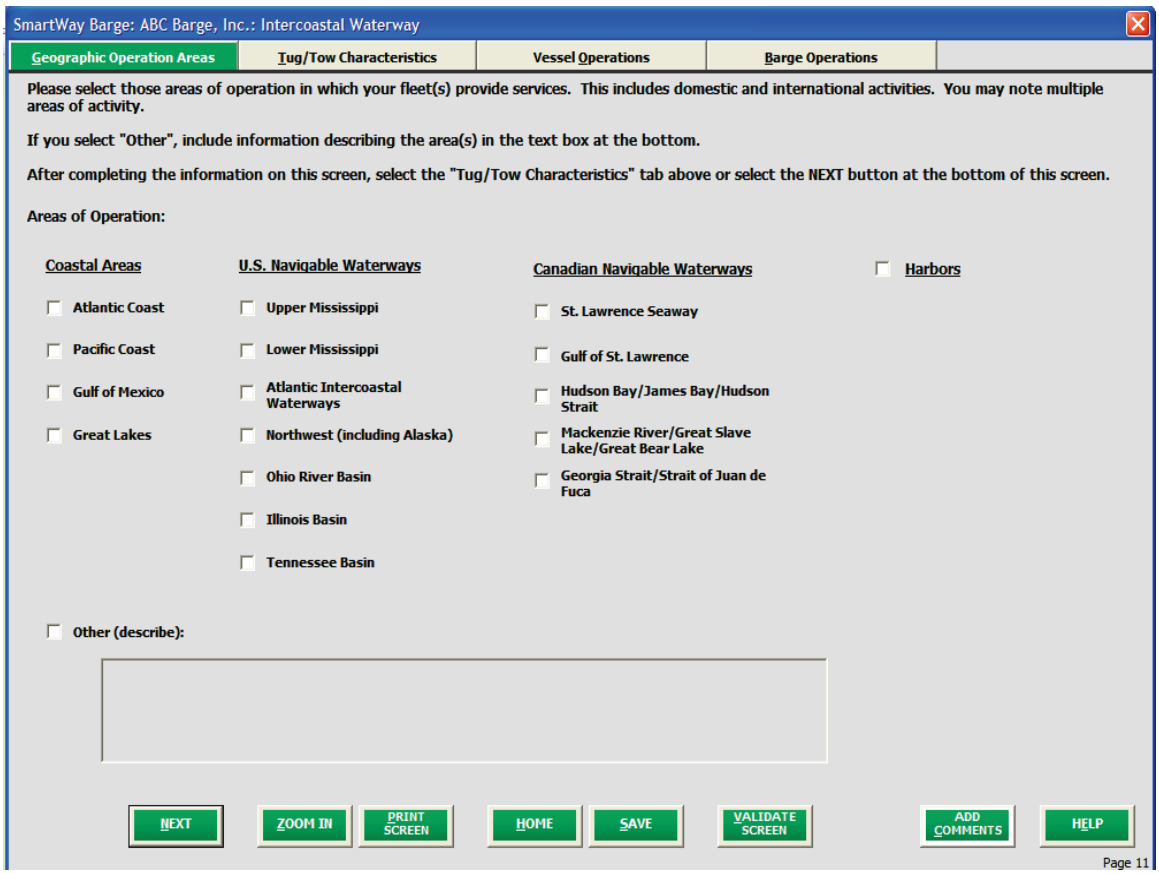


Figure 33: Geographic Operation Areas Screen

Please select those areas of operation in which your fleet(s) provide services. This includes domestic and international activities. You may note multiple areas of activity by selecting multiple boxes. If you select **Other**, Include information describing the area(s) in the text box at the bottom.

You can select the 

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

Once your **Geographic Operation Areas** data has been validated as complete and correct, select the 

button or select the **Tug/Tow Characteristics** tab at the top of the screen to proceed.



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

Steps for Completing Tug/Tow Characteristics Screen

PLEASE REFER TO **WORKHEET #3** in Part 2 of this guidance to complete this section of the Barge Tool.

On this screen provide the vessel-specific information requested in order to uniquely characterize each entry. Blank rows will be created for each vessel identified on the **Fleet Details** screen. All fields require an entry except **Coast Guard Number** and **Retrofit Info**.

After entering the **Vessel Name**, select the **Vessel Type** representative of the most common type of service. Vessel Type options include:

- Linehaul - involved in movement of barges over long distances, in contrast to tugs primarily used in harbor activities. Linehaul tugs tend to operate for extended periods at a consistent speed and load.
- Locking – used to transit larger river locks.
- Canal - comply with limitations associated with canal water depths, height restrictions relative to bridges or tunnels, and length and width constraints of the locks that move vessels from one water level to another.
- Harbor - smaller tugs that operate in and around port areas, moving barges to and from local terminals, and moving fuel barges to larger ocean going vessels. Vessel speed and load for harbor tug operations vary significantly.
- Coastwise - operate between coastal ports but may not be certified for deep water operations.
- Other

If you select "Other", you must also provide a description of the vessel type in the popup screen.

The Barge Tool assumes each vessel utilizes one or two propulsion engines. If there are two engines, these are assumed to be of the same model/rebuild year and power rating. After specifying the number of propulsion engines enter the associated model/rebuild year.[1] Make sure to specify the units used for reporting power (HP or kW) using the drop-down above the table.

For fuel types are available in the Barge Tool including low and ultra low sulfur marine diesel (500 ppm and 15 ppm sulfur, respectively), biodiesel, and LNG. If Biodiesel is selected you must also specify the blend percentage (e.g., B20 for 20% biodiesel).

[1] If an engine has been certified to an EPA Tier level in advance of the standard introduction year, you may specify the advanced year. For example, if a 2013 engine is actually certified to Tier 3 standards, select 2014 as the model year.

Next, specify the EPA Engine Category - Category 1 for engines less than 7 liters per cylinder, and Category 2 for engines 7 to 39 liters per cylinder. (Note the Barge Tool assumes there are no Category 3 engines transporting barge freight.)

For the Total Rated **Propulsion Power** field, enter the maximum rated power of the main engine(s). For example if there are two 2,000 HP engines then enter 4,000 in this field. The total maximum rating of the propulsion system is needed to calculate kilowatt-hours, which is then applied to the appropriate factors to estimate emissions.

See **Figure 34** for an example input screen.

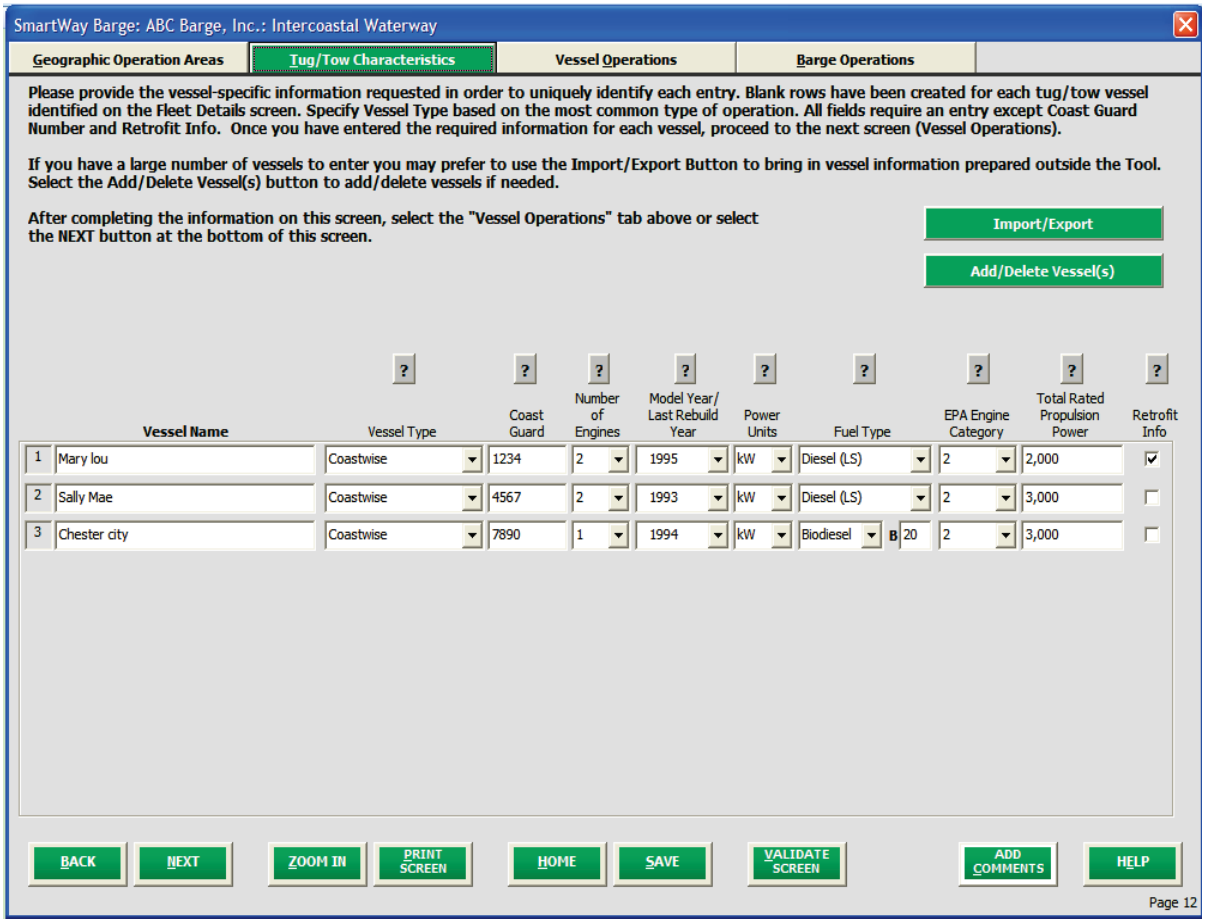


Figure 34: Tug/Tow Characteristics Screen

If you have a large number of vessels in your fleet, and you prefer to compile your vessel information offline using your in-house datasets, you may use the Import/Export button on this screen. Detailed instructions regarding the use of this function are available in the **Guide to Importing Vessel Data Using the Data Import/Export Function**, which can be downloaded from the SmartWay website.

If you need to add or delete a vessel from your fleet, you may do so from this screen using the Add/Delete Vessel(s) button on this screen. Clicking this button opens a hidden section on this screen that allows you to choose the number of tugs to add and/or select which row to delete from your current fleet (**See Figure 35**).

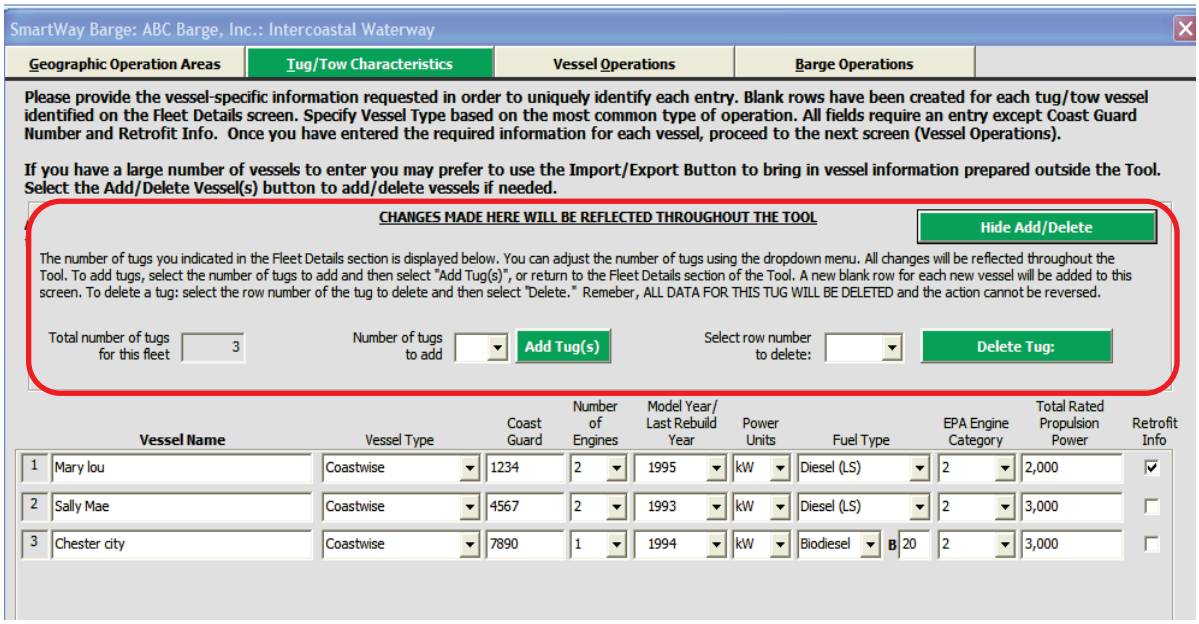


Figure 35: Add/Delete Tug Section (Optional)

To add a tug(s), enter the number of tugs to add then select the Add Tug(s) button. Blank rows will be added to the bottom of the screen for each tug added. To delete vessels from the fleet, enter the row number for the vessel you wish to delete and select the Delete Tug: button. The Tool only allows one row of data to be deleted at a time. When finished, you may choose to hide this section again by selecting the Hide Add/Delete button.

If an engine has been retrofit with an emissions control technology, select the box on the far right to select from a list of standard retrofit options. The list of retrofit options available are:

1) Fuel Injection Engine Improvements
2) Selective Catalytic Reduction (SCR)
3) Common rail
4) Diesel Electric
5) Humid Air Motor (HAM)
6) Hybrid Engines
7) Diesel Oxidation Catalyst
8) Lean NOx Catalyst, and
9) Other.

If “Other” is selected, enter the percent reduction for each pollutant, NOx and PM, and provide an explanation for each.

See **Figures 36 through 38** for example **Retrofit Information** screens.

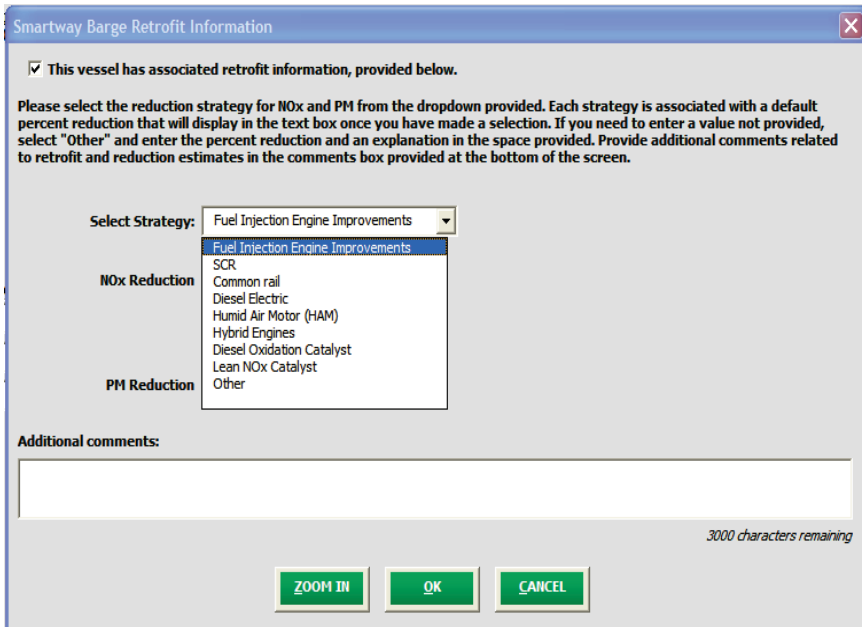


Figure 36: Retrofit Information Screen

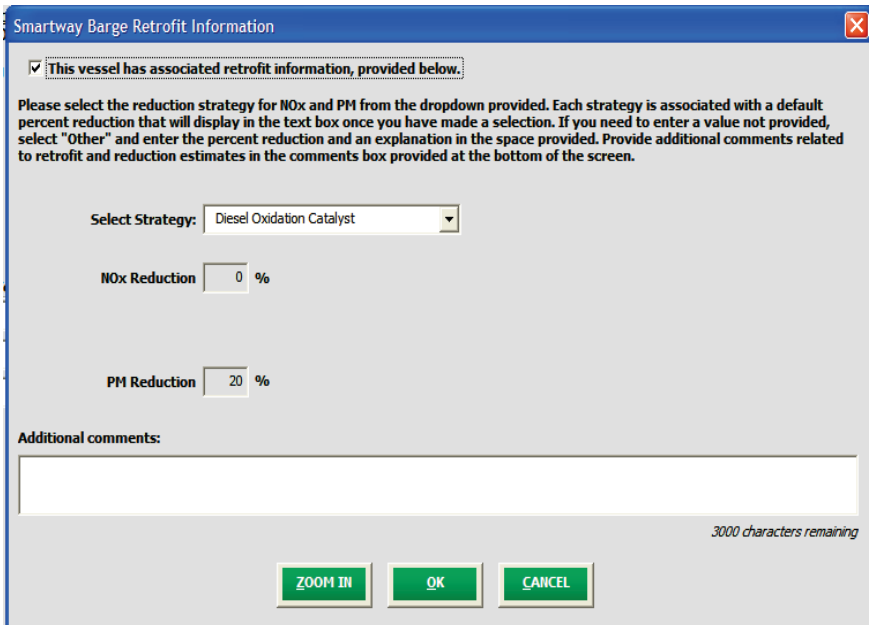


Figure 37: Retrofit Information Screen

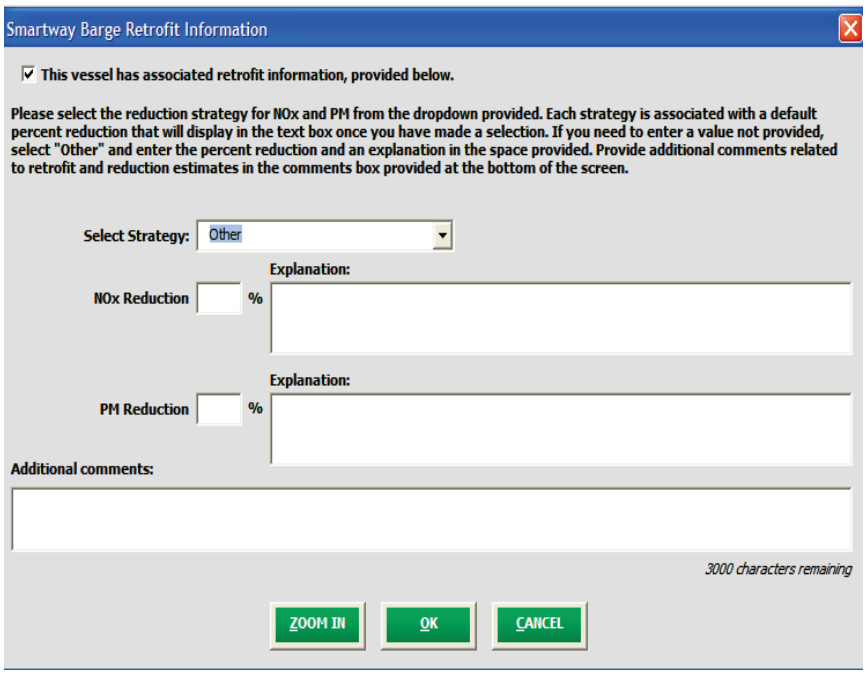


Figure 38: Retrofit Information Screen

Once your **Tug/Tow Characteristics** data have been validated as complete and correct, select the NEXT button or select the **Vessel Operations** tab at the top of the screen to proceed.

Steps for Completing the Vessel Operations Screen

PLEASE REFER TO **WORKHEET #4** in Part 2 of this guidance to complete this section of the Barge Tool.

On this screen please provide the vessel-specific operation information requested, including fuel consumption (specifying either gallons or tons), towing capacity[2], and engine activity differentiating hours of underway versus maneuvering operation for propulsion engines and total hours of auxiliary engine use during the reporting year.[3] Provide total fuel used across all engines (propulsion and auxiliary), specifying your reporting units (gallons or tons). Finally, enter the source for this data in the text box at the top of the screen. [4]

[2] Enter towing capacity in terms of the maximum possible tonnage of cargo transported per trip. This information is used to validate your estimates for total ton-miles hauled later in the Tool. Do not enter capacity in Bollard Tons - this value will vary depending upon a number of factors including vessel speed and barge configuration, and will not correspond directly to maximum tonnage transported.

[3] Note that emissions associated with the use of shorepower are not included in this version of the Barge Tool.

[4] Auxiliary engines are assumed to use the same fuel as propulsion engines with the exception of LNG propulsion engines. In this case auxiliary engines are assumed to use ultra-low sulfur diesel, and diesel fuel totals must be provided for these engines separately on the auxiliary engine popup screen.

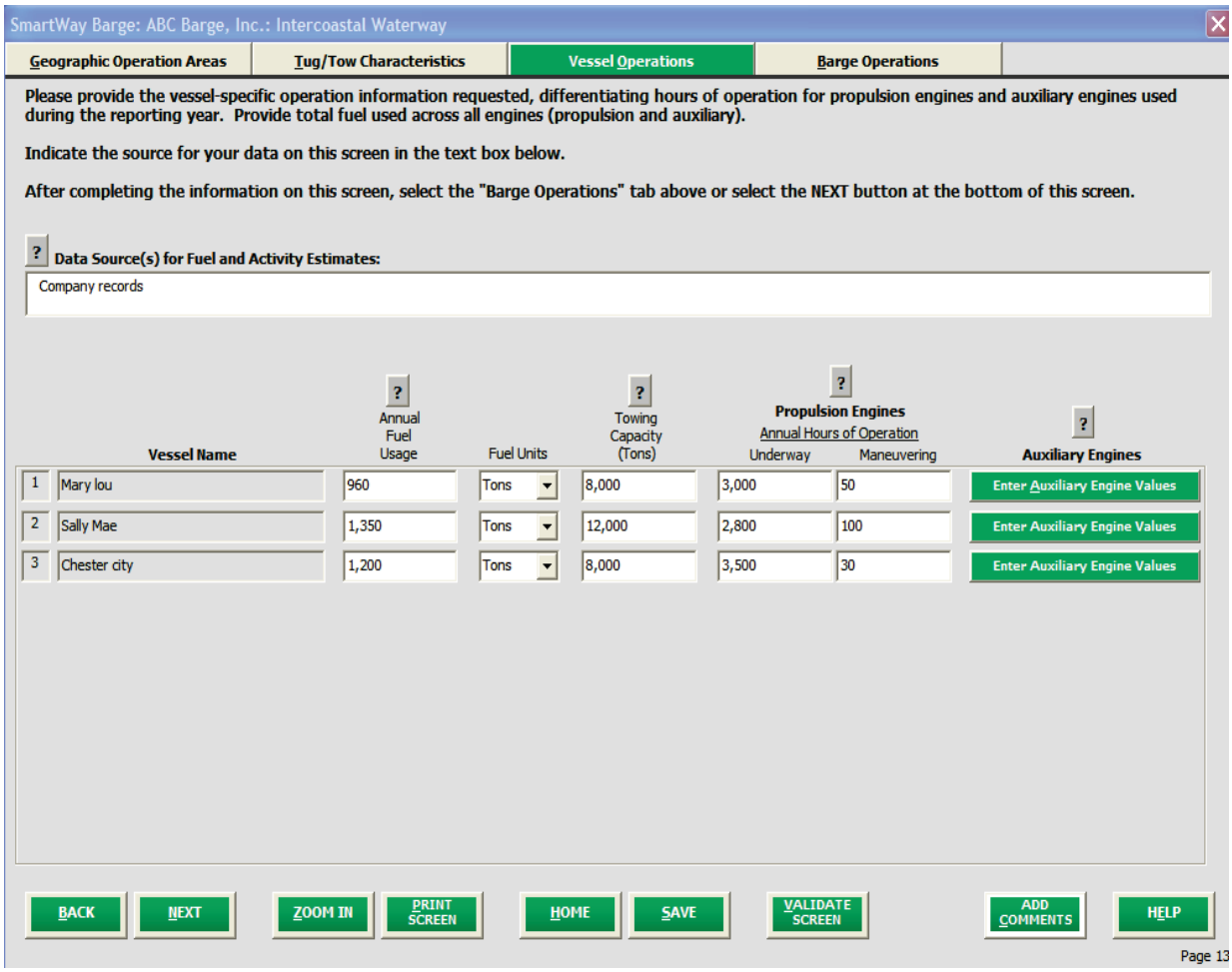


Figure 39: Vessel Operations Screen

If the vessel in question uses auxiliary engines, enter data for these engines by clicking the Enter Auxiliary Engine Values button at the end of each data row. Clicking this button opens the auxiliary engine information window (see **Figure 40**). Up to eight auxiliary engines may be defined in this window. Select the manufacture or rebuild model year for each auxiliary engine and enter the associated annual hours of use and total rated power (in kilowatts or hp) for each auxiliary engine. If the vessel is powered by LNG, also enter the total annual diesel fuel consumption for all auxiliary engines in gallons at the top of the screen.

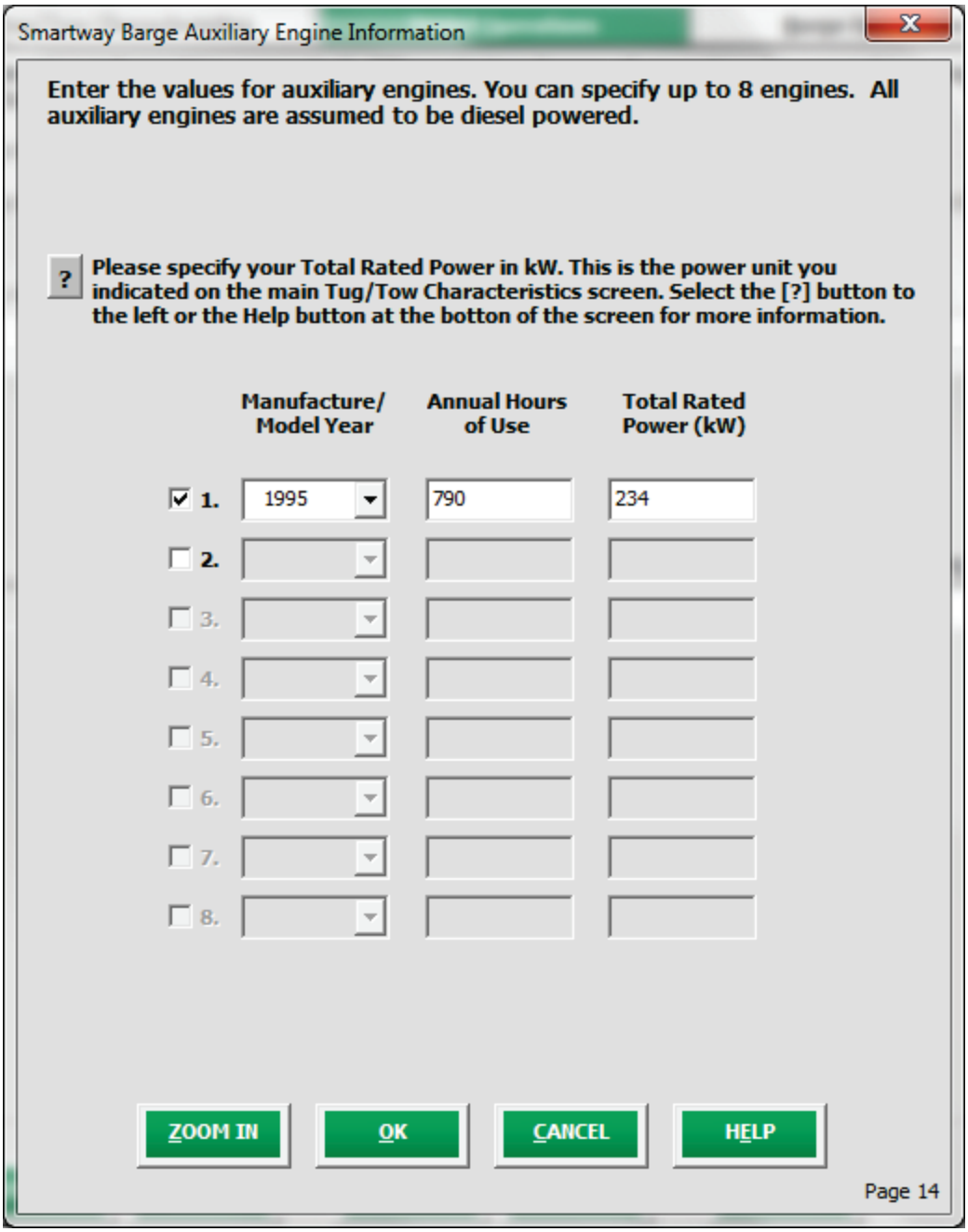


Figure 40: Auxiliary Engine Information Screen

NOTE: Use this screen to enter <u>all</u> auxiliary engine data, including any auxiliaries used on barges (e.g., for pumps).

When finished entering data for auxiliary engines, select the OK button to save the data and return to the **Vessel Operations** screen.

Once your **Vessel Operations** data have been validated as complete and correct, select the NEXT button or select the **Barge Operations** tab at the top of the screen to proceed.

Steps for Completing the Barge Operations Screen

PLEASE REFER TO **WORKHEET #5** in Part 2 of this guidance to complete this section of the Barge Tool.

On this screen please provide the barge activity information for each barge type/size combination that you operate in your fleet. Use the scroll bar on the right to see additional type/size combinations. (If a barge is less than 150 feet in length, please assign it to the 150 foot category.) The available barge types include:

- Hopper - Designed to carry materials, like rocks, sand, oil, and garbage for dumping into the ocean, a river or lake for land reclamation. The bottom of these barges can open allowing them to dump their cargo when they arrived at the spot where the materials are to be released.
- Covered Cargo - Includes some form of covering to protect dry bulk cargo from wind and precipitation; reducing the loss of cargo during shipment.
- Tank - Equipped with several sealed tanks used to transport liquids and gas such as crude oil, refined fuels, industrial chemicals, and natural gas.
- Deck - Has a flat deck able to load large and heavy equipment that would not fit in any other types of barge.
- Container - Designed to move shipping containers in shallow waters where small containerships may not be able to transit.
- Other.

The total number of barges indicated on this screen must equal the number you specified in the **Fleet Characterization** section of the Tool. The **Calculated Total** section of the Tool at the lower right will indicate when your entered barge numbers match the values in the **Fleet Characterization** section. The boxes in **Figure 41** below present calculated numbers and do not require you to enter information. The first box shows the total number of barges you entered in the **Fleet Characterization** section of the Tool (it is automatically populated). The next box shows the total number of barges you have entered on this screen (in the **Number of Barges** column. This is also automatically populated). The final box at the bottom will show the calculated difference between the previous two values, if there is any. If the values match, the bottom box will be empty and the label will simply read "Match".



NOTE: The Barge Tool is intended for system-wide input and reporting of barge activity. However, a given cargo delivery may involve different activity profiles such as light-loading on multiple barges upriver due to shallow depths, and consolidation to a smaller number of barges for the downriver portion of the trip. In this instance, users should estimate “trip average” values for the number of barges used, volume utilization and average payload, along with total miles travelled per barge over both legs of the trip, in order to report this data. In the future SmartWay will investigate

alternative methods for disaggregating data entry and reporting in order to more precisely account for operational variations such as these.

After specifying the number of barges, enter the Average Volume Utilization for each barge type/size combination as a percentage. For deck barges estimate the percent of available surface area utilized.

Next enter the average annual loaded and empty miles per barge. **NOTE: All miles entered in the Barge Tool refer to nautical miles, not statute miles.** Then enter your best estimate for average payload per loaded barge trip, in short tons).

Finally, enter the total ton-miles, loaded and unloaded barge miles for your fleet as a whole in the **Total Fleet Activity** section on the upper right. **NOTE: DO NOT ESTIMATE TON-MILES BY SIMPLY MULTIPLYING TOTAL MILES BY TOTAL TONS** - this calculation effectively assumes your entire tonnage is transported by EACH AND EVERY vessel, and will clearly overstate your ton-miles. In order to calculate your fleet's total ton-miles, multiply your average loaded payload per barge by your average annual loaded miles per barge and then by the total number of barges. To check your data, divide total ton-miles by total miles. The result is your fleet-average payload. If this number is not reasonable, check your calculations. See **Figure 41** for an example input screen.

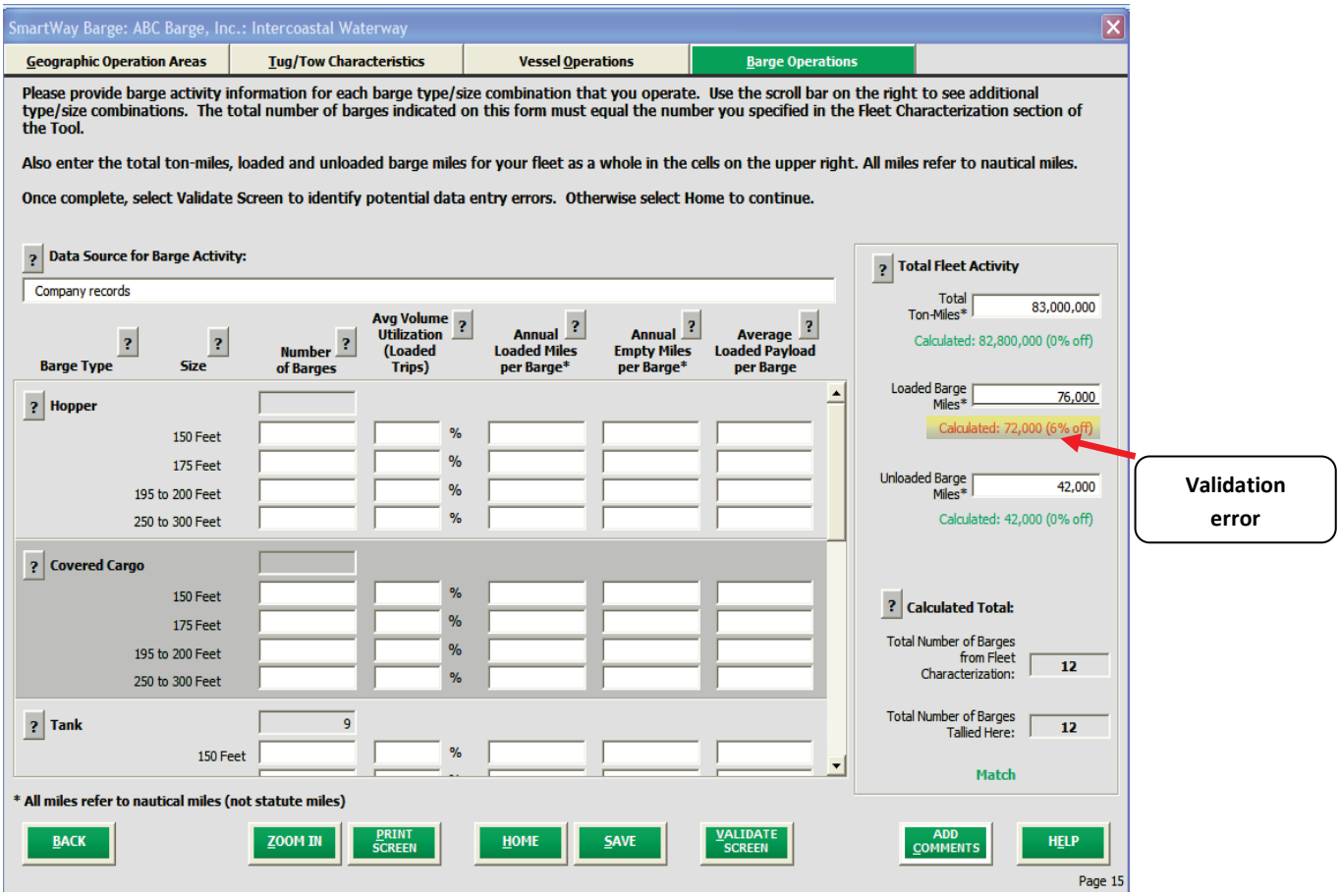


Figure 41: Barge Operations Screen

The **Total Fleet Activity** section show above displays the results of a validation check performed by the Tool to ensure that that the values entered for **Total Ton-Miles**, **Total Loaded Barge-Miles**, and **Total Unloaded Barge-Miles** are within 5% of the values calculated from the individual data entry rows. If the values differ by more than 5% (as is the case for **Loaded Barge-Miles** above), the difference will be highlighted in red. Users must resolve any highlighted discrepancies before finalizing their Tool.

Once data entry is complete, describe the data sources used to develop your barge activity information at the top of the screen, then select **Validate Screen** to identify potential data entry errors. Otherwise select **Home** to continue.

Viewing Your Fleet Status

Once you have returned to the **Home** screen, notice that the fleet for which you provided data now identifies its status as "Complete." You may now highlight the next fleet if you have another one to complete. Fill out unfinished fleets in the same manner as the previous fleet.

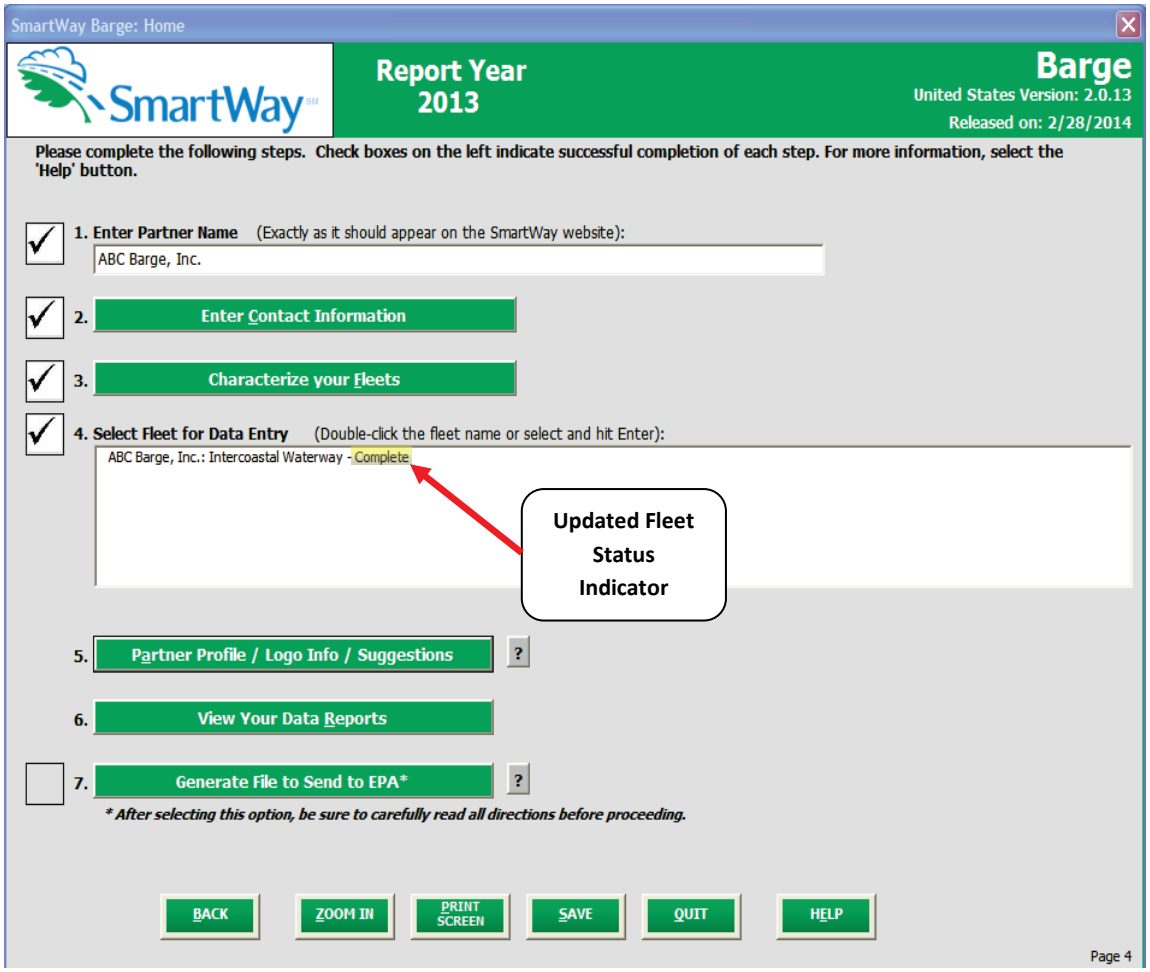


Figure 42: Home Screen after Data Entry for First Fleet

Partner Profile / Logo Info / Suggestions

After completing Steps 1 – 4 on the **Home** screen, you may provide EPA with additional information regarding your company, potential use of the SmartWay Logo, and general feedback regarding the SmartWay Program. ***This information is optional and is not required in order to submit your Barge Tool data to EPA.***

Selecting the Partner Profile / Logo Info / Suggestions button on the **Home** screen will open the **Additional Information** screen (see **Figure 43**).

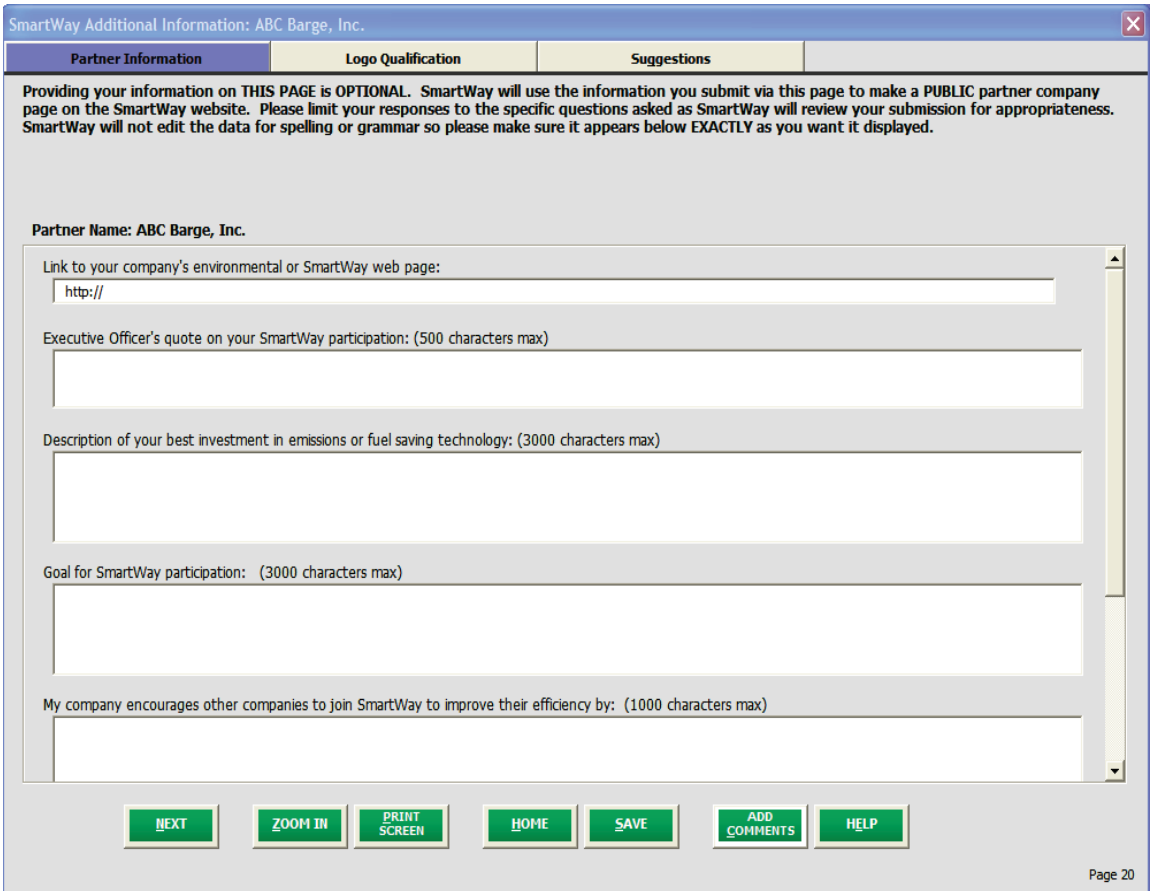


Figure 43: Additional Information Screen

Use this page to provide information you would like to share publicly. Information should be entered in the text boxes displayed. Use the scroll bar to the right to display additional questions. SmartWay will use this information to create a **SmartWay Partner Profile** page for your company on the SmartWay website. You do not need to complete every question. SmartWay will NOT edit for spelling or grammar, so make sure the text is exactly as you wish it to appear. If your company contains public relations functions, you may want them to review this information before submittal, however, keep your SmartWay due date in mind. SmartWay WILL review this data for appropriate content. Information provided should be informational in nature, and speak to the question.

Figure 44 shows the **Logo Qualification** screen. The SmartWay Partner Logo is provided at the company level to Partners in good standing in the SmartWay program. To be in good standing you must submit your SmartWay materials by the appropriate due date. Due dates are posted on the EPA website at epa.gov/smartway. Use this screen to provide information regarding your qualification for, and planned use of, the Partner Logo. Additional information on Logo qualification and use can be found by selecting the SmartWay Partner Logo Information button.

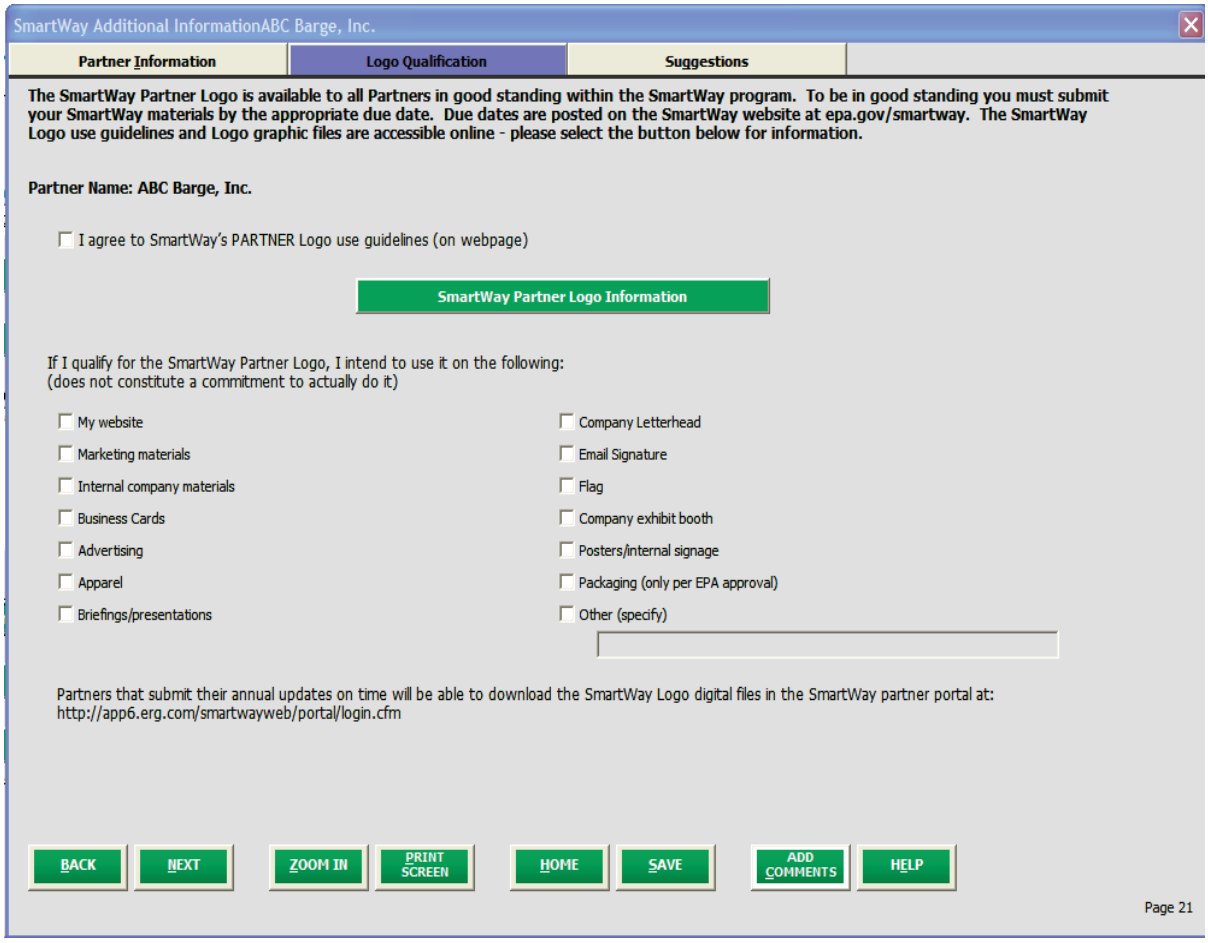


Figure 44: Logo Qualification Screen

Figure 45 displays the **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.

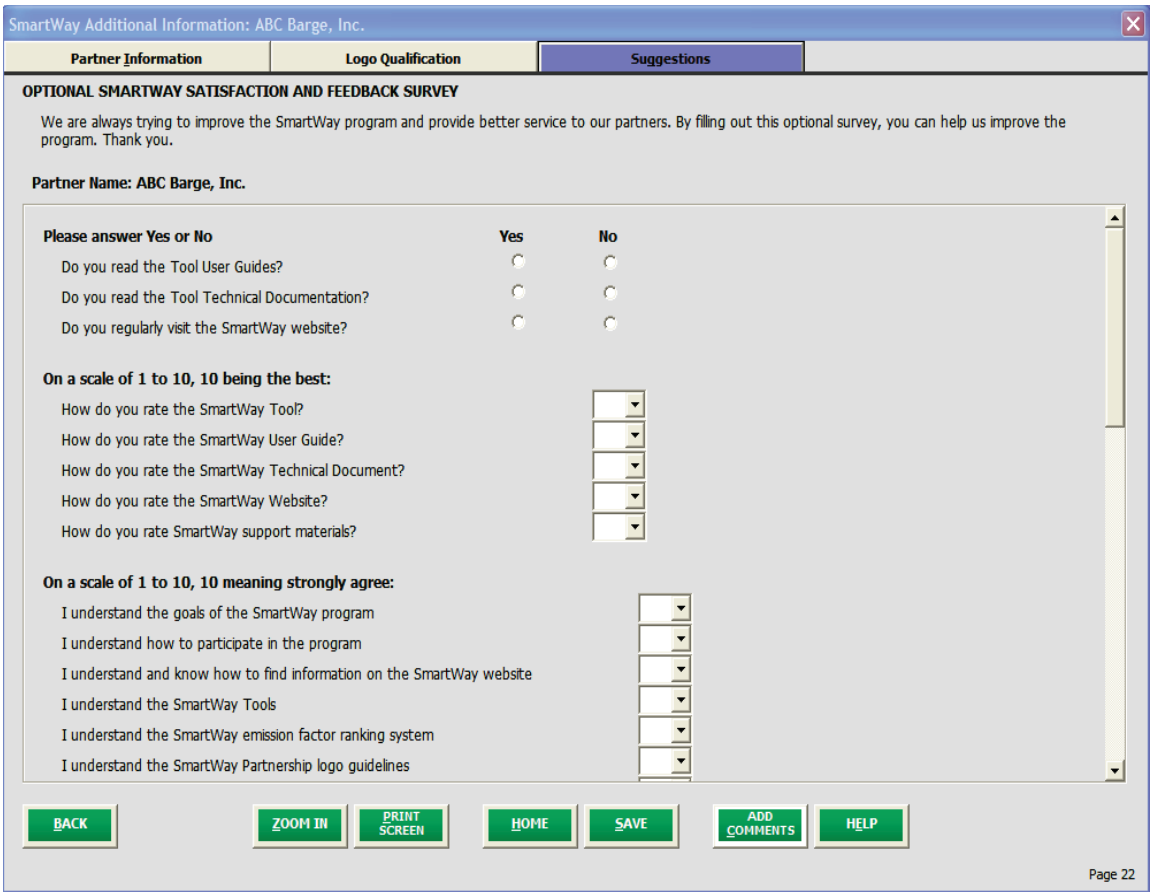


Figure 45: Suggestions Screen

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

Viewing Reports

Once you are ready to continue, select View Your Data Reports from the **Home** screen which will take you to the following screen:

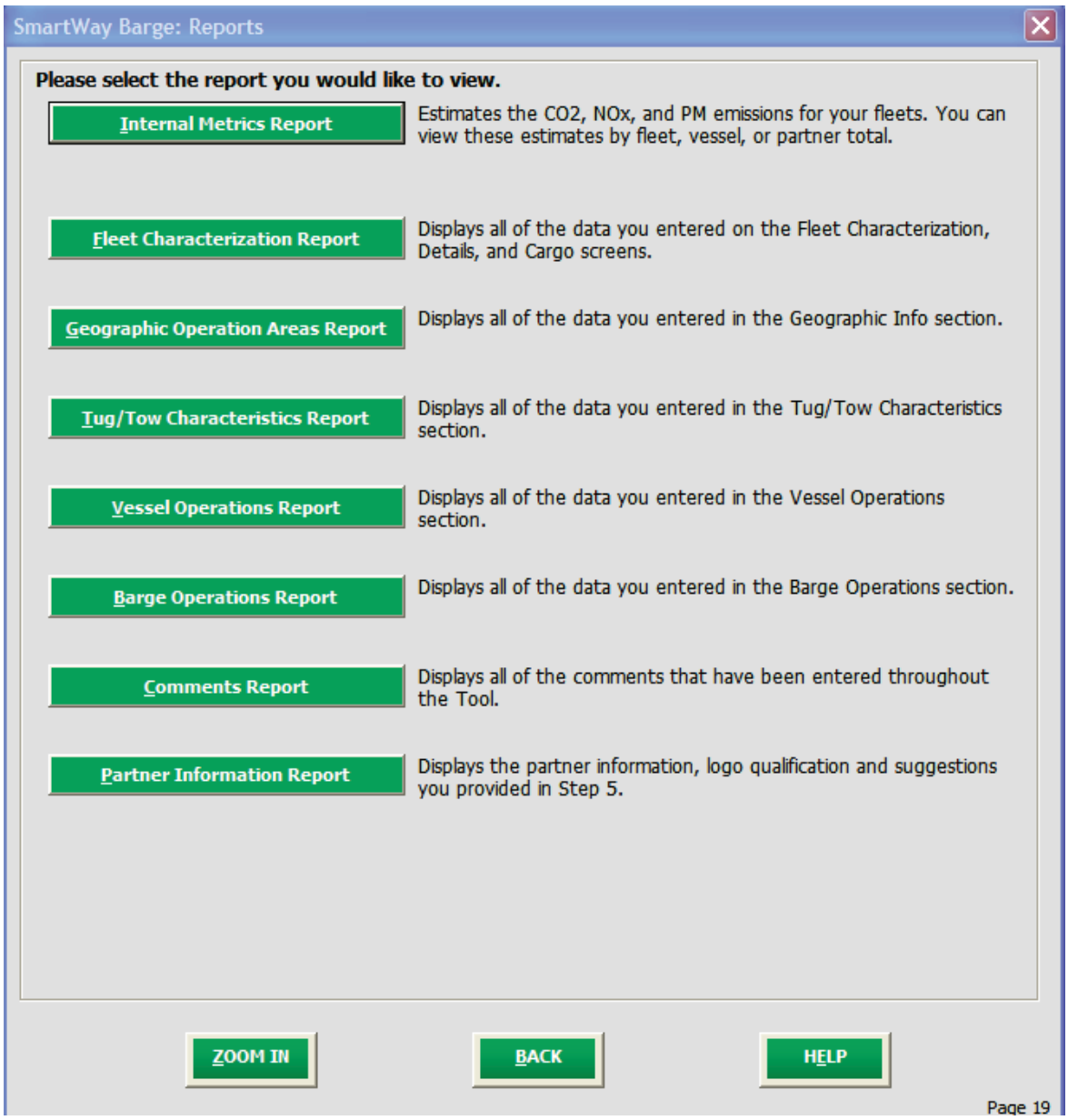


Figure 46: View Fleet Reports Screen

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 **Fleet Characterization, Vessel Operations, and Barge Operations Reports.**

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

Select the 

button to review the performance of your fleet(s) in terms of grams per ton-mile, grams per barge-mile, and grams per 1,000 cubic foot-miles (for total and utilized volume), by pollutant type. Different display options are available for Company-level and Fleet-level performance.

Submitting Data to SmartWay

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

Select the Generate File to Send to EPA* button, which will open the following screen.

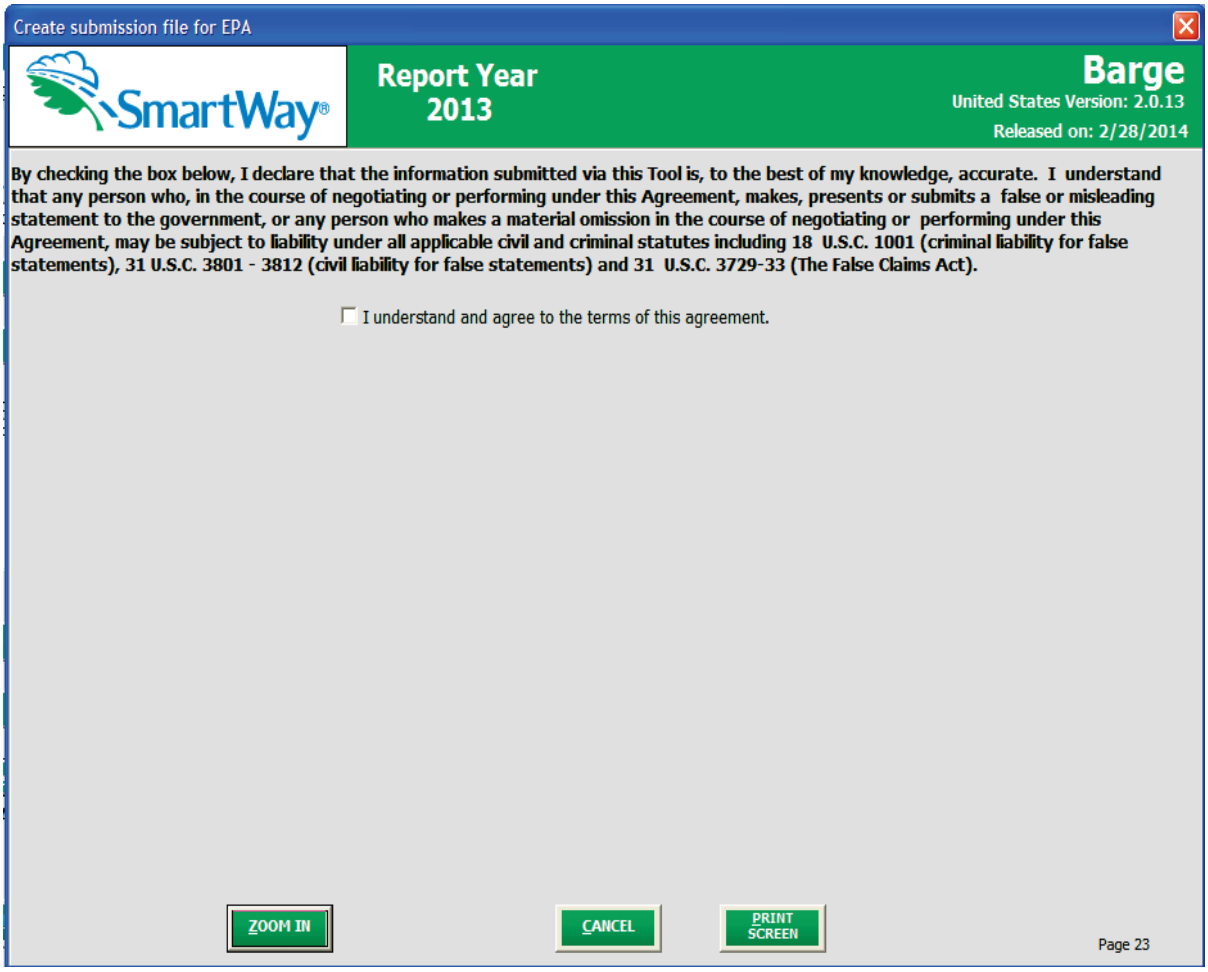


Figure 47: Creating Submission File for EPA

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 if you submitted your data the previous reporting year. If so, you must then enter 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.

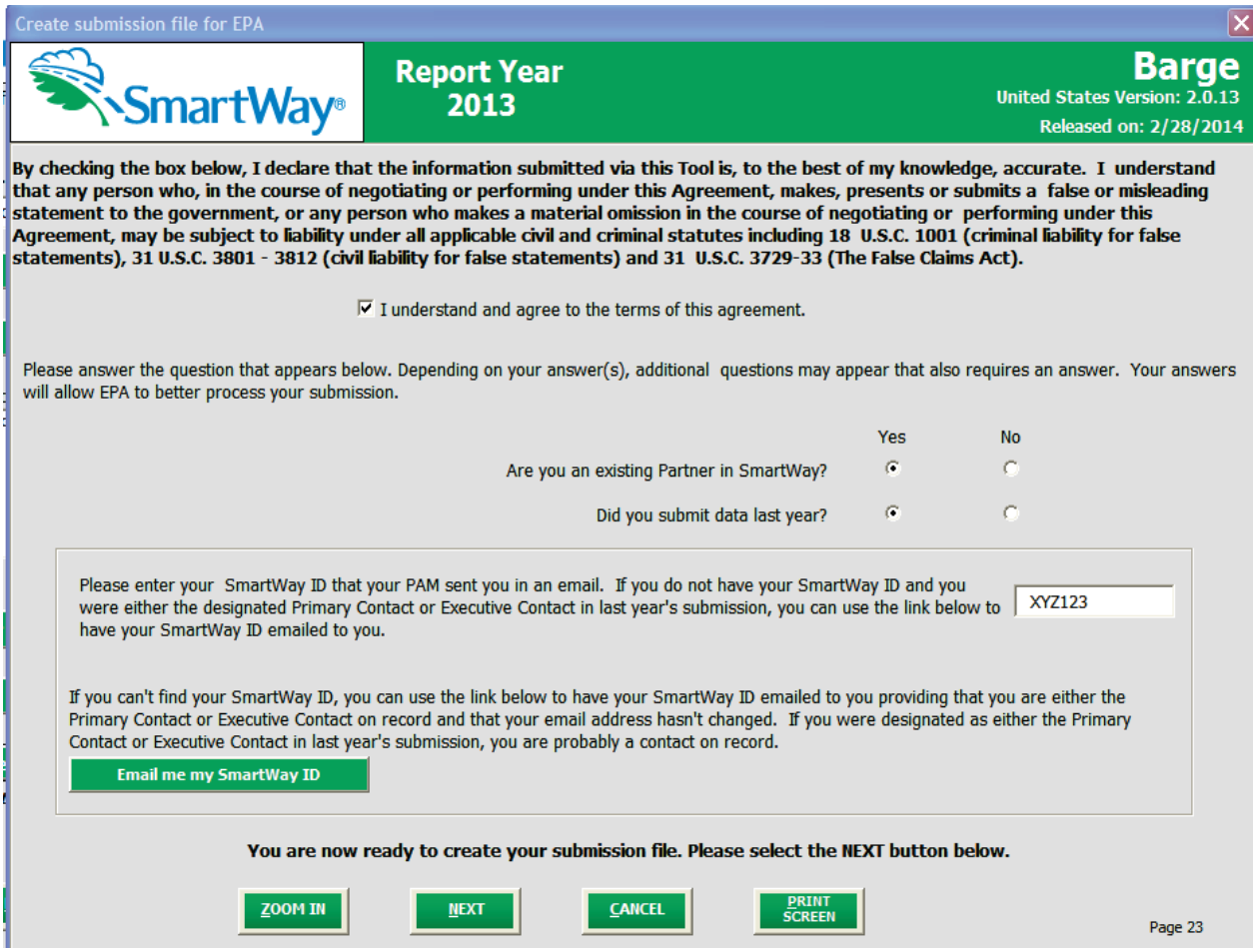


Figure 48: Completed Submission File Screen

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

Barge_PartnerName_ Year_ V0.xml [5]

For example, Barge_ABC Barge, Inc_ 2013 _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.

[5] If you create the XML file multiple times the file name will increment each time (e.g., Barge_ABC Barge, Inc_2013_V1.XML for the second iteration, etc.

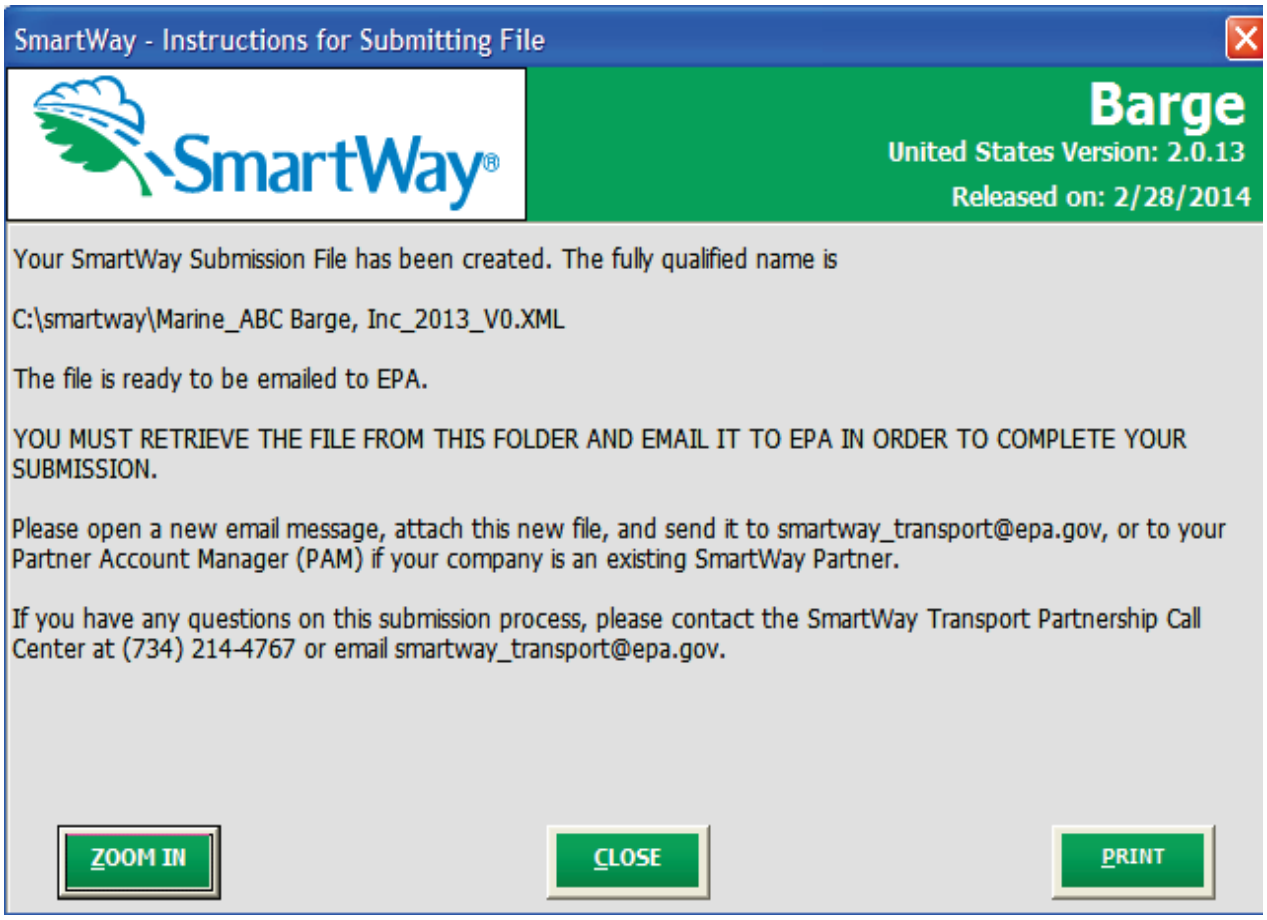


Figure 49: Instructions for Submitting xml File to EPA

Follow these instructions for submitting your .xml file to SmartWay. Note that the .xml file is approximately 10 times smaller than the .xls file itself. Upon selecting **NEXT,** a screen will appear that allows you to close the Barge 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 FILE.

NOTE: DO NOT DELETE YOUR EXCEL (XLS) 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 directly from the SmartWay website, or from an e-mail, rather than from a drive, or when multiple Excel files or other applications are open simultaneously. If you encounter an error during use of the Tool, please try restarting the Tool directly from a disk drive, with all other Excel files and applications closed. In addition, make sure that your computer is using a system and application version validated for use with the SmartWay Tools (Windows XP or later operating system, and Excel Office 2003, 2007, 2010 or 2013).

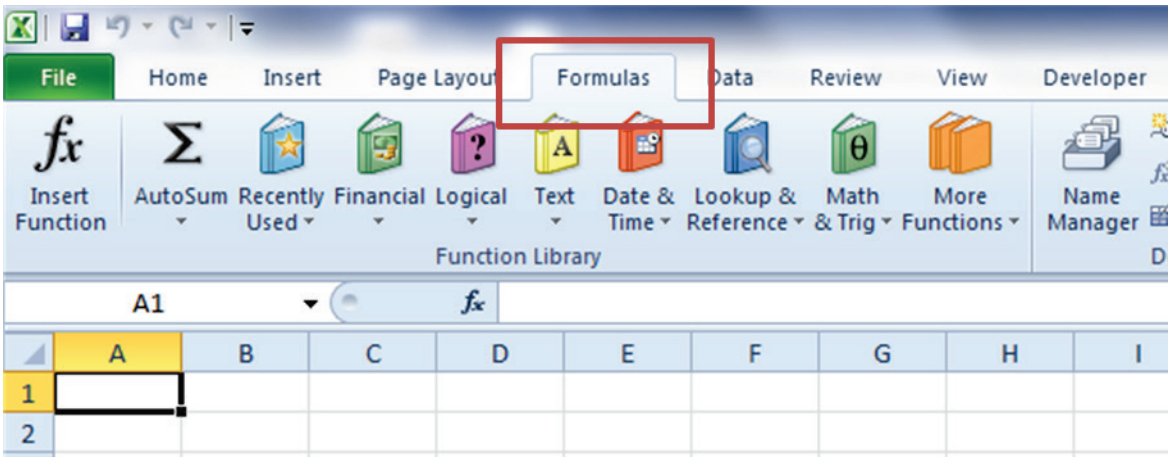
If you continue to encounter problems, please make a screen capture of the error message, and save the Tool at that point. (You can make a screen capture by pressing *Alt-Print Screen*, and then pasting the image into a document such as MS Word.) Then send the screenshot, along with the saved Tool to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

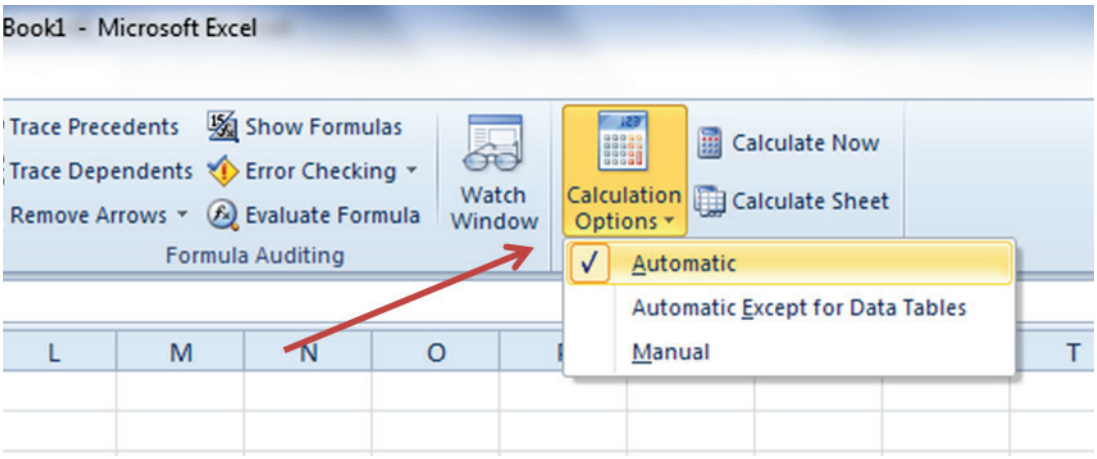
Proper Calculation Setting

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

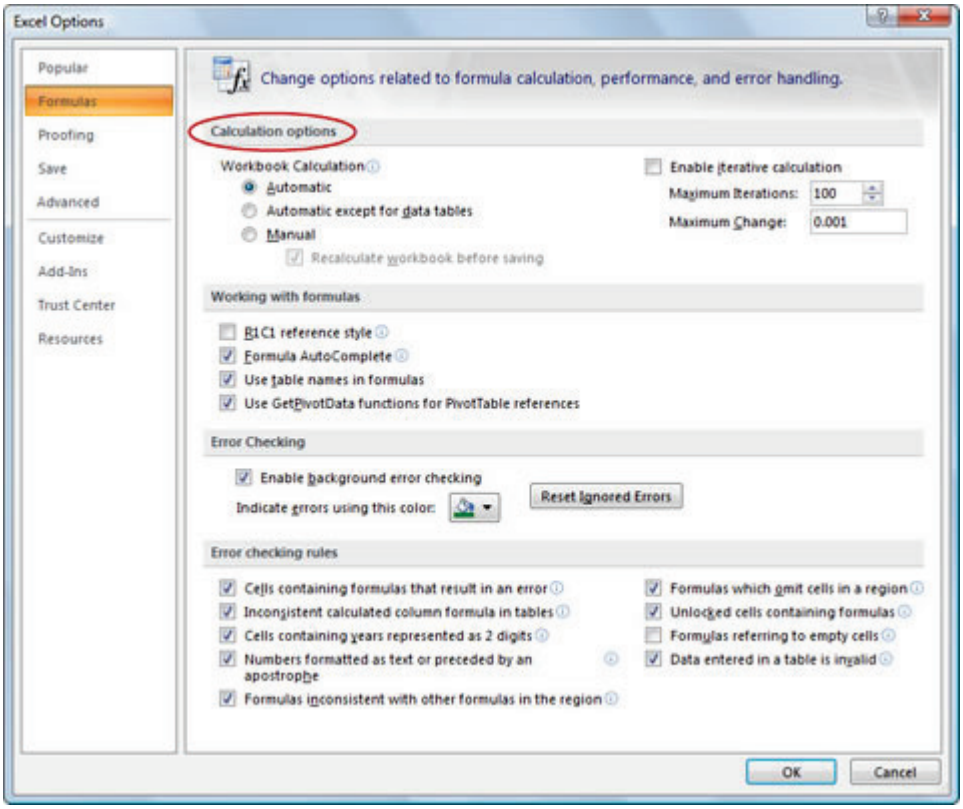
Choose the "Formulas" tab. Select the "Calculation Options" button in the "Calculation" section to view the drop-down list of options. Choose "Automatic" from the list of options to switch to automatic calculation.





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”.

