Rail Carrier Partner 2.0.15 Tool: Data Collection Overview and Workbook
2015 Data Year - United States Version

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

Introduction to Part 2: DATA COLLECTION OVERVIEW AND WORKBOOK

This guide is **Part 2 of a three-part series** to help trucking companies participate in the SmartWay Transport Partnership.

In this guide you will learn about:

1. The general organization of the SmartWay Rail Carrier Tool, and
2. Data needs for each section of the Tool.

You will also have the opportunity to collect your data using our data collection worksheets in preparation for the data entry step (Part 3).

Please review this guide carefully BEFORE attempting to use the Tool or enter data. Understanding the data requirements and gathering all data in advance will save considerable time and frustration while completing your Tool submission.

If you wish to explore the Rail Tool in preparation for joining the program, please review Part 3: Data Entry Guide and return to this workbook to prepare for gathering your data.

In the event that you have a question about any of the data collection activities, you can contact SmartWay Email Support at smartway_transport@epa.gov and a member of our SmartWay Partner Support Team will assist you.

WARNING!

Completing the Rail Tool requires a considerable amount of information about your company and the fleets that are joining SmartWay. There are multiple 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 any time, **we STRONGLY ENCOURAGE** you to review Part 1 to understand key information about joining the Partnership. Then, 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.

Overview of Data Collection Requirements

The SmartWay Rail Tool is the data collection and calculation system for rail carriers that join the SmartWay Transport Partnership. There are four *required* sections of the SmartWay Rail Tool that require data about your company's operations:

1. **Specify Official Partner Name**
2. **Enter Company Contact Information**
3. **Characterize Your Fleets**
4. **Enter Activity and Fuel Information for Each of Your Fleets**

This guide will explore the data required for completing these four sections. Part 3 of the three-part user guide series explains more about the structure of the Tool and the data entry process; this guide will focus primarily on what you need to do to prepare for completing the Tool.

Section 1: Specify Official Partner Name

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

Section 2: Enter Company Contact Information

SmartWay needs complete contact information for correspondence, web posting, press releases, and awards and recognition (where applicable). The SmartWay Tool asks for:

- **General company information** such as location, web address, phone number, etc.

- **A Working Contact**[1] for any questions about your company's participation and Tool submissions

- **An Executive Contact**[2] for participation in awards and recognition events

- **Additional contacts (optional):** Additional contacts may include anyone who is not the Working contact but may be involved with SmartWay (e.g., press/media contact, fleet manager, etc.).

Note that you MUST have at least two contacts listed in the contact information section of the Tool, and the Working and Executive Contacts must be different. SmartWay recommends developing an internal

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[1] 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 company 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 emails from SmartWay/EPA are not blocked, new Working contacts may need to add SmartWay/EPA to their preferred list of trusted sources.)

[2] The Executive Contact is the company executive who is responsible for agreeing to the requirements in the SmartWay Partnership 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.

succession plan to make sure that your Tool submission schedule is maintained, in the event that a Working Contact is reassigned, or leaves the company for any reason.

Please use Worksheet #1 in this guide to prepare for filling out the Contact Information Screen in the Rail Tool.

Section 3: Characterize Your Fleets

The SmartWay Rail Tool allows you to characterize your operations at the fleet level. In the Rail Tool, a fleet is defined as any business unit that a customer has discretion to hire.

- If you are a small company (e.g., Class 3) you will only have one fleet
- If you are a large rail company (e.g., Class 1), you may have several fleets

NOTE: You may enter multiple fleets into a single Tool submission.

SmartWay highly recommends developing your list of fleets offline using a company organization chart or perhaps a customer interface webpage. The best strategy is to have a clear idea of how to define your fleets before filling out the Tool.

Your company's name and your fleet name(s) will be listed on the SmartWay website to indicate your participation in the SmartWay Transport Partnership. Your shipper and logistics customers can also use the SmartWay Online Database to search for your company by the name you submit in the Tool.

> **Therefore, it is <u>critical</u> that you identify your company and fleet(s) in the Tool as you would have them appear on the SmartWay website.**

The data requirements for the "**Characterize Your Fleets**" section are described below.

Please use the Worksheet #2 provided in this guide to prepare for filling out the Characterize Fleets section in the Rail Tool.

NOTE: You may wish to print multiple copies of Worksheet #2 if you have multiple fleets.

Data Requirements for "Fleet Characterization" Screen

For each fleet, you will need to specify:

- **<u>Partner Name:</u>** On the SmartWay website, each of your fleet names will begin with the name of your company. This fleet name 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 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.

- **<u>Fleet Identifier:</u>** 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.

- **<u>Class:</u>** Enter the Class of the associated rail fleet (1, 2, or 3).

- **<u>Fleet Contact:</u>** This contact should be one of the contacts you already identified in the **Contact Information** section as the contact for each fleet. **NOTE:** A drop-down menu in the tool will

supply this information; if there is a contact for the fleet that is not already listed in the Contacts worksheet, you will need to go back to that screen to add the required contact information.

Section 4: Enter Activity and Fuel Information for Each of Your Fleets

Once you have identified and characterized your fleets, you will be asked to provide additional information for EACH fleet separately. Much of this information will be directly available for Class 1 rail carriers from their most recent R-1 report data.

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

Data Requirements for "Power Units" Screen

Please use the Worksheet #3 provided in this guide to prepare for filling out the Power Units section in the Rail Tool (make one copy for each fleet).

You will need to provide power unit information about the selected fleet.

- Specify the number of power units or hours per year operated during the reporting period, by engine tier level. Depending up the **Data Input Method** selected, this information may be broken out by line haul and switch engines. Under method 1 you may aggregate your fleet's line-haul and switch units together, while method 2 requires that you report the unit type counts separately. Methods 3 and 4 are similar, but require inputting hours of operation by tier, rather than unit counts.[3] For Class 1 operators, please refer to R1 form, schedule 710 for details. The different engine tier level definitions are provided below:

  - Non-tier – manufactured before 1972
  - Tier 0 – manufactured between 1972 and 2001
  - Tier 0+ - manufactured between 1972 and 2001, and remanufactured after 2010
  - Tier 1 – manufactured between 2002 and 2004
  - Tier 1+ – manufactured between 2002 and 2004 and remanufactured after 2010
  - Tier 2 - manufactured between 2005 and 2011
  - Tier 2+ - manufactured between 2005 and 2011 and remanufactured after 2013
  - Tier 3 - manufactured between 2012 and 2014
  - Tier 4 – manufactured after 2015

- Next, Class 1 operators must enter your fleet's Total Locomotive Unit Miles/Year data under Part B. Break out your unit miles data by line haul and switching categories, as appropriate. This data is available in the R-1 forms for Class 1 railroads (see lines 8-14 of Schedule 755).   Class 2 and 3 operators do not enter this information.

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[3] In general, method 4 will provide the most accurate estimate for NOx and PM emissions.

- Finally, you will need to provide a detailed description of the data sources used to obtain your power unit data (e.g., R-1 Form section and line numbers for Class 1 carriers).

Data Requirements for "Cars" Screen

Please use the Worksheet #4 provided in this guide to prepare for filling out the Cars section in the Rail Tool (make one copy for each fleet).

Class 1 operators will need to provide power unit information about the selected fleet. (Class 2 and 3 operators do not enter this information.)

- Specify your fleet's annual railcar miles for the reporting year, by car type (e.g., box, gondola, etc.) and ownership type (Owned/Leased or Private). These data may be obtained from R-1 Report Section 755 (see lines 15 – 84).

- If available, also provide your fleet-specific railcar volumes by car type.

NOTE: All car-mile data should be entered as actual miles, NOT 1,000s of miles (as presented in the R-1 Report).

NOTE: Hopper Open Top cars should include activity for both general service hoppers and special service hoppers.

Data Requirements for "Operations" Screen

Please use the Worksheet #5 provided in this guide to prepare for filling out the Operations section in the Rail Tool (make one copy for each fleet).

You will need to provide power unit information about the selected fleet:

- Specify your fleet's annual fuel consumption and ton-mile data. Record annual fuel use per year by fuel type (diesel, biodiesel, LNG, CNG, and electric) and train category (freight, passenger, and switch). Petroleum diesel, biodiesel, and LNG entries must be in gallons per year. Specify CNG units indicating standard cubic feet or gasoline-equivalent gallons per year. Electricity use is specified in kWh/year. If you indicate biodiesel consumption data, you must also specify the fleet average fuel blend level (between 0 and 100). For Class 1 operators, please refer to R-1 form, schedule 750, lines 1 - 3 for details.

- Specify your gross, revenue, and non-revenue ton-mile data. This data is available for Class 1 operators from R-1 Report Section 755, lines 104, 110, and 113, respectively.

NOTE: All ton-mile data should be entered as actual ton-miles, NOT 1,000s of ton-miles (as presented in the R-1 forms).

NOTE: Switch engine fuel usage should also include fuels used by Work Trains involved in track maintenance (Schedule 750 line 6).

Worksheets for Data Collection

List of Worksheets

Worksheet #1: Company Contact Information

#1. Enter your Contact Information:

General Company Contact Information

Company Name							
Headquarters Mailing Address							
City		State/Province		Zip		Country	
Main Phone Number		Toll-free Number		Cell number		Web Address	

Working Contact Information

Working Contact Name							
Working Contact Mailing Address							
City		State/Province		Zip		Country	
Working Contact Phone Number				Email Address			

Executive Contact Information

Executive Contact Name							
Executive Contact Mailing Address							
City		State/Province		Zip		Country	
Executive Contact Phone Number				Email Address			

Other Contact Information

Other Contact Name							
Other Contact Mailing Address							
City		State/Province		Zip		Country	
Other Contact Phone Number				Email Address			
Contact's role in program							

Worksheet #2: Fleet Characterization

Complete this worksheet for <u>each fleet</u> you will be submitting in the Rail Tool.

Specify Company/Fleet Name (exactly as it should appear on the SmartWay website):

Partner Name _____

Fleet Identifier _____

Railroad Class (1, 2, 3) _____

Fleet Contact:_____

Worksheet #3: Power Units Information

Complete this worksheet for **each fleet** you will be submitting in the Rail Tool.

Specify Power Unit Inventory by Engine Tier

Inventory Basis (circle one):   # Units   Hours/Yr

Engine Tier	Line Haul	Switch	Total*
non-Tier	_____	_____	_____
0	_____	_____	_____
0+	_____	_____	_____
1	_____	_____	_____
1+	_____	_____	_____
2	_____	_____	_____
2+	_____	_____	_____
3	_____	_____	_____
4	_____	_____	_____

* If you cannot differentiate line haul and switch inventories, enter # Units or Hours/Yr for Totals only

Total Locomotive Unit Miles/Year (Class 1 Operators Only):

Unit Trains   _____

Way Trains   _____

Through Trains   _____

Train Switching   _____

Yard Switching   _____

Describe the data source used to develop the above data:

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Worksheet #4 Car Data (page 1 of 2)

Complete this worksheet for <u>each fleet</u> you will be submitting in the Rail Tool.

Fleet Name:_____

Railcar Miles/Year (Class 1 Operators only):

	Owned and Leased		Private	
	Loaded	Empty	Loaded	Empty
Box - Plain 40'				
Box - Plain 50' +				
Box Equipped				
Gondola Plain				
Gondola Equipped				
Hopper Covered				
Hopper Open Top*				
Refrigerated Mechanical				
Refrigerated Non-Mechanical				
Flat TOFC/COFC				
Flat Multi-Level				
Flat General Service				
Flat All Other				
Tank Under 22,000 gallons				
Tank Over 22,000 gallons				
All Other Cars				
Work Equipment and Company Freight				
No Payment Car-Miles				

*Includes both general and special service

Worksheet #4: Car Data (page 2 of 2)

For each fleet, enter the fleet-specific volume in cubic feet for each car type. If you do not have this data, the Rail Tool will apply national average volume estimates.

	Volume (cu ft)
Box - Plain 40'	
Box - Plain 50' +	
Box Equipped	
Gondola Plain	
Gondola Equipped	
Hopper Covered	
Hopper Open Top*	
Refrigerated Mechanical	
Refrigerated Non-Mechanical	
Flat TOFC/COFC	
Flat Multi-Level	
Flat General Service	
Flat All Other	
Tank Under 22,000 gallons	
Tank Over 22,000 gallons	
All Other Cars	
Work Equipment and Company Freight	
No Payment Car-Miles	

*Includes both general and special service

Worksheet #5: Operations Data

Complete this worksheet for __each fleet__ you will be submitting in the Rail Carrier FLEET Tool.

Enter Fuel Use/Yr:

Fuel Type	Units	Freight	Passenger	Switching
Diesel	gal/yr			
Biodiesel^	gal/yr			
LNG	gal/yr			
CNG	gal/yr cu ft/yr *			
Electricity	kWh/yr			

* circle one

^ Biodiesel blend % (if applicable): _____

Gross Ton-Miles/Yr _____ **(R1, Schedule 755, line 104)**

Revenue Freight Ton-Miles/Yr _____ **(R1, Schedule 755, line 110)**

Non-Revenue Freight Ton-Miles/Yr _____ **(R1, Schedule 755, line 113)**

Next Steps

Now that you understand the data collection requirements for the SmartWay Rail Tool, and you have collected the data you need in the worksheets, you are ready to download the Tool and begin the data entry process. **Part 3** of the user guide series will guide you through the Tool screens, and help you enter the data and troubleshoot any problems you may have with your submission. Please visit http://www.epa.gov/smartway/forpartners/index.htm to download **Part 3: Data Entry Guide** and the Rail Tool if you haven't already.