United States
Environmental Protection Agency
Office of Air and Radiation, Office of Transportation and Air Quality

Manufacturer ABT Report for Recreational Vehicles (40 CFR Part 1051)

Version Number: 2.1 Last Updated: July 2021

Added items in Red

Manufacturer Data Submission Template -- INSTRUCTIONS

I. About

Manufacturers subject to the Recreational vehicle or engine standards under 40 CFR Part 1051 may opt to participate in the Averaging, Banking and Trading (ABT) program (see: 40 CFR §1051.701 through §1051.745). If they choose to participate in the program, manufacturers must track the implementation of these provisions based on the model year and the pollutant (e.g., HC) level to which the engine family is certified. In order to help streamline and standardize the process by which manufacturers submit information related to credits under the ABT program, EPA has created an Excel-based template that can be used by manufacturers to organize, present, and submit their ABT data.

Note that this template can be used to submit ABT reports for Snowmobiles, All-Terrain Vehicles, or Off-Highway Motorcyles, but all three are considered separate programs and credits may not be averaged or exchanged between them. Manufacturers should submit separate files for each vehicle type.

II. General Information

Before entering data, it is important to ensure that the Excel file is set up to automatically calculate the data. To ensure that the data are calculated immediately upon entry, go to the Formulas tab and click on Calculations Options. In this window, the option "Automatic" should be selected. Note that the drag and drop option should not be used to copy or move data entered in the worksheet since doing so will change how the cells are referenced in the formulas and may lead to erroneous calculations. These worksheets are protected and as a resultyou may only enter data in the unlocked cells (i.e., the non-shaded cells). Fields that are automatically calculated (and therefore, are also locked), are shaded.

III. Reporting Templates

This Excel file contains six worksheets that allow for calculating and tracking credits: "Current MY Credits - Snowmobile, Current MY Credits-ATV, Current MY Credits-OffHwyMC, Current MY Credits-EVAP, Power Calc, and Summary.

- **Current MY Credit Calc-Snowmobile:** This worksheet contains a template for entering data to calculate emission credits associated with snowmobiles.
- **Current MY Credit Calc-ATV:** This worksheet contains a template for entering data to calculate emission credits associated with all-terrain vehicles.
- **Current MY Credit Calc-OffHwyMC:** This worksheet contains a template for entering data to calculate emission credits associated with off-highway motorcycles.
- **Summary:** This worksheet provides an overall summary of the Part 1051 credits that have been calculated from the preceding worksheets and allows the manufacturer to enter in credit trades and credits from previous model years so that these credits can be properly applied and compared to current model year credits. This worksheet allows the manufacturer to outline how credits will be used to document compliance with the standards.

IV. Entering Data for the Current Model Year

The user should first enter in the Model Year and Manufacturer in the appropriate fields above the main table. Enter in the appropriate information for each data element. Cells that are shaded are auto-calculated and cannot be edited.

It is the user's responsibility to ensure that the Vehicle Type, Pollutant, FEL, Standard, and other fields are both accurate and compatible. The Messages column to the right of the credit calculations provides additional information in the event that the first digit in the Engine Family Name does not match the Model Year. Additional messages are displayed to indicate if data is missing, or if FEL or Standard caps have been exceeded. Note that any extra rows that do not contain any data, can be left blank. If additional rows are needed, please contact EPA for a revised form and specify how many entries/rows will be required.

Directly below the table, the current model year credit totals are provided. These are calculated separately for each parameter (HC, CO, etc.) or category. Any traded credits (purchased or sold), may be listed in the "Summary" worksheet and applied to current model year balances as needed.

V. Summary of Credits

The "Summary" worksheet contains a summary of all credits (banked, traded, and current model year credits). This worksheet allows for the application of these credits to current model year balances. The initial step requires the entry of carryover or traded credit balances. The application and averaging of these existing credits with current model year credits is summarized in the second step below. In this worksheet, any cells that are highlighted in yellow or orange are automatically populated based on information in the Current MY Credits worksheets or from the calculation of credits within the "Summary" worksheet.

In the "Credit Balances Before Averaging" section, enter any traded and carryover (banked) credit balances. Note that current model year credits are automatically populated in this summary sheet based on data entered and calculated within the "Current MY Credit Calc" worksheet. Next, using the existing balances (as included in the "Credit Balances before Averaging" section), indicate in the "Credit Usage and Averaging" section, the number of traded or banked credits that should be applied to the current model year credit balances. Ensure that credits are applied within the corresponding averaging set.

The "Credit Balances after Averaging" section of the worksheet is automatically populated with the credit balances based on the application of credits in the preceding section. The final credit totals in this section display the remaining traded and banked credits (i.e., the banked/traded balances before averaging reduced by the number of credits actually "applied" to the final balance) as well as the Final Credit Balances, which reflect the corresponding Current MY credit balances plus any credits "applied" to the balance in the preceding section.

VI. Restrictions §1051.701 (b)

You may not average together engine families that are certified to different standards. You may not average or exchange banked or traded credits from engine families of one type of vehicle with those from engine families of another type of vehicle. You may not average or exchange banked or traded credits with other engine families if you use fundamentally different measurement procedures for the different engine families (for example, ATVs certified to chassis-based vs. engine-based standards). You may not average or exchange banked or traded exhaust credits with evaporative credits, or vice versa.

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Manufacturer ABT Report for Recreational Vehicles - Snowmobile Exhaust Credits

Version Number: 2.3 Last Updated: March 2025

Current Model Year Credit Calculations - Snowmobiles

Model Year:	Manufacturer:

Engine Family	Pollutant	Max Engine Power (kW) if Useful Life is not in kW-hr	Useful Life *	Useful Life Units of Measure	Alt Standards	Production Volume	FEL (g/kW-hr)

* If useful life is expressed in kilometers, convert the useful life to kW-hr based on the maximum engine power and an assumed vehicle speed of 30 km/hour as follows: UL (kW-hr) = UL (km) multipli
Engine Power (kW), then divided by 30 km/hr (See 40 CFR 1051.720(a)(2)). If desired, use the fields below to calculate the conversion. However, the template will convert km to kW-hr if km is chose

[(Useful Life (km) | | X | Max Engine Power (kW)) | | /30 km/hr] = | 0 | Useful Life (kW-hr)

	HC (g/kW-hr)	CO (g/kW-hr)	
Average Emission Level			eqn (1)
Average Standard			eqn (2)
Credit/Deficit			<----Product only if error message field is blank

eqn (3)

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Current Model Year Credit Calculations - ATVs

Model Year:	Manufacturer:

Engine Family	Production Volume	Max Engine Power (kW) if Alt Std is "Y"	Useful Life *	Useful Life Units of Measure	Alt Engine Standard? **

* If standards are expressed as g/kW-hr and useful life is expressed in kilometers, convert the useful life to kW-hr based on the ma

[(Useful Life (km) | | X | Max Engine Power (kW)) | | /30 km/hr] =

** Select "Y" if the alternate standards for all-terrain vehicles below 100 cc apply (see: §1051.615)

	$HC+NO_x$ (g/km)	$HC+NO_x$ (< 100 cc) (g/kW-hr)
Average Emission Level		
Average Standard		
Credit/Deficit		

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Paperwork Reduction Act Notice

The public reporting and recordkeeping burden for this collection of information is estimated to average **XX** hours per response. Send this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, inclu collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvan 20460. Include the OMB control number (2060-0287) in any correspondence. Do not send the completed form to this address.

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Version Number: 2.3 Last Updated: M

FEL	Standard	FEL/Standard: Units of Measure

ximum engine power and an assumed vehicle speed of 30 km/
fields below to calculate the conversic

0	Useful Life (kW-hr)

Emission le

Credit = [(

is blank

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ding through the use of automated
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TV) and Utility Vehicle (UTV) Exhaust Credits under §1051

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hour as follows: UL (kW-hr) = UL (km) multiplied by Maximum Engine Power (kW), then divided by 30 km/hr (See 40 CFR 1051.720(a)(2)). If desired, use the
on.

$$\text{evel} = \left[\sum_i (\text{FEL})_i \times (\text{UL})_i \times (\text{Production})_i\right] / \left[\sum_i (\text{Production})_i \times (\text{UL})_i\right]$$

$$\text{Average standard} - \text{Emission level})\Big] \times \left[\sum_i (\text{Production})_i \times (\text{UL})_i\right]$$

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Manufacturer ABT Report for Recreational Vehicles - C

Version Number: 2.0 Last Updated:

Current Model Year Credit Calculations - Off Highway Motorcycles

Model Year:	Manufacturer:

Engine Family or Test Group Name	Pollutant	Useful Life *	Useful Life Units of Measure	Production Volume

* If standards are expressed as g/kW-hr and useful life is expressed in kilometers, convert the useful life to kW-hr based on the ma
UL (kW-hr) = UL (km) multiplied by Maximum Engine Power (kW), then divided by 30 km/hr (See 40 CFR 1051.720(a)(2)).

[(Useful Life (km)		X	Max Engine Power (kW))	

** Select §1051.615 for off-highway motorcycles at or below 70 cc that are certified to the alternate standard for small engines. Sele
g/km. You may not use the trading provisions of Subpart H of 1051 if 1051.105 is chosen.

	HC+NO_x §1051.105(a)(1) (g/km)	HC+NO_x - Alt Std §1051.615 (g/kW-hr)	HC+NO_x - Alt Std §1051.105(a)(2) (g/km)	CO (g/km)
Average Emission Level				

Average Standard				
Credit/Deficit				

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Off-Highway Motorcycle Exhaust Credits

March 2025

Alt Standard? **	FEL	Max Engine Power (kW)	Standard	FEL/Standard: Units of Measure

ximum engine power and an assumed vehicle speed of 30 km/hour as follows:

/30 km/hr] = 0 Useful Life (kW-hr)

ect §1051.105(a)(2) for off-highway motorcycles certified to the alternate HC+NO_x standard of 4.0

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$$\text{Emission level} = \left[\sum (\text{FEL})_i \times (\text{UL})_i \times (\text{Produc} \right.$$

Credit = [(Average standard – Emission lev

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end comments on the Agency's need for this information, the accuracy of the collection techniques to the Director, Collection Strategies Division, U.S. ber (2060-0287) in any correspondence. Do not send the completed form to this	on August 31, 2012 (currently under OMB review) EPA Form 5900-XXX

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$$\text{tion})_i \Big] \Big/ \left[\sum (\text{Production})_i \times (\text{UL})_i \right]$$

$$\left[\sum_{i}(\text{Production})_i \times (\text{UL})_i\right]$$

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Manufacturer ABT Report for Recreational En

Version Number: 1.1 Last Updated: Augus

Evaporative Emission Credits

Model Year:	Manufacturer:

Emission Family	Fuel Tank Configuration	Average Internal Surface Area (m^2)*	Total Surface Area (m^2)*	#Vehicles in Engine Family

* Average internal surface area of the vehicles' fuel tanks.

** Useful life should be expressed in years multiplied by 365.24 (see §1051.720(a)(3))

UL(years) | X 365.24 = | 0 | Useful Life

Average Emission Level	
Average Standard	
Credit/Deficit	

Emission level = [Σ

Credit = [(Av

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Production	FEL (g/m²/day)	Useful Life**	Standard (g/m²/day)

$$\left[\sum_i (\mathrm{FEL})_i \times (\mathrm{UL})_i \times (\mathrm{Production})_i\right] / \left[\sum_i (\mathrm{Production})_i \times (\mathrm{UL})_i\right]$$

$$\text{verage standard} - \text{Emission level})\Big] \times \left[\sum_i (\mathrm{Production})_i \times (\mathrm{UL})_i\right]$$

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Manufacturer ABT Report for Recreational Vehicles - Credit Summary

Version Number: 2.0 Last Updated: March 2025

Credit Averaging and Summary

Model Year:	Manufacturer:									
		Snowmobiles		ATVs and UTVs		Off-Highway Motorcycles				
		HC (g/kW-hr)	CO (g/kW-hr)	$HC+NO_x$ (g/km)	$HC+NO_x$ (<100cc) (g/kW-hr)	$HC+NO_x$ (g/km) §1051.105(a)(1)	$HC+NO_x$ (<70cc) (g/kW-hr) (§1051.615)	$HC+NO_x$ (Alt Std: 4.0 g/km) §1051.105(a)(2)	CO (g/km)	
Credit Balances	**before Averaging:**									
	Credits acquired via trading activity									
	Credits banked from prior model years									
	Current MY Credits									
Credit Usage and	**Averaging:**									
	Apply credits acquired via trade									
	Apply banked credits									
Credit Balances	**after Averaging:**									
	Remaining Credits (acquired via trading activity)	0	0	0	0	0	0		0	
	Remaining Credits (banked from prior MYs)	0	0	0	0	0	0	0	0	
	Final Credit Balance									

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