

Engine Family Name or Test Group	Tier in Effect	If Tier 2, Reserved for Future Use?	Do Tier 4 Alternative Compliance Options Apply? (Y/N)	Gen Sets? (Y/N)	Air Cooled, hand-startable, and direct injection? (Tier 4 and <3 kW engines only)	Average Power (kW)	Parameter	Averaging Set	FEL (g/kW-hr)	Indirect Fuel Injection - Tier 2/3 only (Y/N)	Useful Life (Hours)	Production Volume (actual sales/production) (S)	Percent of Total Production that is Tracked (T)	Percent of Tracked Production that is Sold within U.S. (U)	NOx Tracking Adjustment Factor (F)	Production Volume Used in Credit Calculations (V)	Tier 2/3 Applicable Standard (g/kW-hr)	Tier 4 Applicable Standard (g/kW-hr)	NOx or NMHC+NOx Averaging Credits Generated or Used	PM Averaging Credits Generated or Used	Messages	Comments

Engine Families Using Credits: $V = (S \cdot T \cdot U) + [(S \cdot (1 - T)) \cdot (U + (1 - U) \cdot (1 - F))]$ If $T \geq 0.70$ but < 0.90 , then $F = (0.50) \cdot (T) + (0.55)$
 Engine Families Generating Credits: $V = (S \cdot T \cdot U) + [(S \cdot (1 - T)) \cdot (U \cdot F)]$ If $T \geq 0.50$ but < 0.70 , then $F = (2.0) \cdot (T) - (0.50)$
 If $T < 0.50$, then $F = 0$
 If $T \geq 0.90$, then $F = 1$

	Averaging Sets - NMHC + NOx Credits					
	≥ 19 kW	Indirect Fuel Injection (≥ 19 kW)	< 19 kW	≥ 19 kW (marine diesel)	Indirect Fuel Injection (> 19 kW marine diesel)	< 19 kW (marine diesel)
Current MY Credits (all credits generated and used)						
Tier 2 Credits - not reserved for potential use in Tier 4	0.00	0.00	0.00	0.00	0.00	0.00
Tier 2 Credits - reserved for potential use in Tier 4	0.00	0.00	0.00	0.00	0.00	0.00
Tier 3 Credits	0.00	0.00		0.00	0.00	
TOTAL CURRENT MY CREDITS AVAILABLE FOR AVERAGING (Tier 2 and 3 Credits not reserved)	0.00	0.00	0.00	0.00	0.00	0.00

	≤ 560 kW Averaging Set		> 560 kW Averaging Set
	≤ 560 kW NOx Credits	≤ 560 kW NMHC+NOx Credits	> 560 kW NOx Credits
Current MY Tier 4 Credits (all credits generated and used)	0.00	0.00	0.00

	Averaging Set - PM Credits	
	> 560 kW	≤ 560 kW
Current MY Tier 4 Credits (all credits generated and used)	0.00	0.00

	Averaging Sets - PM Credits					
	≥ 19 kW	Indirect Fuel Injection (> 19 kW)	< 19 kW	≥ 19 kW (marine diesel)	Indirect Fuel Injection (> 19 kW marine diesel)	< 19 kW (marine diesel)
Current MY Credits (all credits generated and used)						
Tier 2 Credits - not reserved for potential use in Tier 4	0.00	0.00	0.00	0.00	0.00	0.00
Tier 2 Credits - reserved for potential use in Tier 4	0.00	0.00	0.00	0.00	0.00	0.00
Tier 3 Credits	0.00	0.00		0.00	0.00	
TOTAL CURRENT MY CREDITS AVAILABLE FOR AVERAGING (Tier 2 and 3 Credits not reserved)	0.00	0.00	0.00	0.00	0.00	0.00

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Engine Family Name or Test Group	Tier in Effect	If Tier 2, Reserved for Future Use?	Do Tier 4 Alternative Compliance Options Apply? (Y/N)	Gen Sets? (Y/N)	Air Cooled, hand-startable, and direct injection? (Tier 4 and <8 kW engines only)	Average Power (kW)	Parameter	Averaging Set	FEL (g/kW-hr)	Indirect Fuel Injection - Tier 2/3 only (Y/N)	Useful Life (Hours)	Production Volume (actual sales/production) (S)	Percent of Total Production that is Tracked (T)	Percent of Tracked Production that is Sold within U.S. (U)	NOx Tracking Adjustment Factor (F)	Production Volume Used in Credit Calculations (V)	Tier 2/3 Applicable Standard (g/kW-hr)	Tier 4 Applicable Standard (g/kW-hr)	NOx or NMHC+NOx Averaging Credits Generated or Used	PM Averaging Credits Generated or Used	Messages	Comments		

Engine Families Using Credits: $V = (S \cdot T \cdot U) + [(S - 1) \cdot T] \cdot (U + 1) \cdot (1 - F)$
 Engine Families Generating Credits: $V = (S \cdot T \cdot U) + [(S - 1) \cdot T] \cdot U \cdot F$
 If T >= 0.70 but < 0.90, then F = (0.50 * T) + (0.55)
 If T >= 0.50 but < 0.70, then F = (2.0 * T) - (0.50)
 If T < 0.50, then F = 0
 If T >= 0.90, then F = 1

	Averaging Sets - NMHC + NOx Credits					
	≥ 19 kW	Indirect Fuel Injection (≥ 19 kW)	< 19 kW	≥ 19 kW (marine diesel)	Indirect Fuel Injection (≥ 19 kW marine diesel)	< 19 kW (marine diesel)
Current MY Credits (all credits generated and used)						
Tier 2 Credits - not reserved for potential use in Tier 4	0.00	0.00	0.00	0.00	0.00	0.00
Tier 2 Credits - reserved for potential use in Tier 4	0.00	0.00	0.00	0.00	0.00	0.00
Tier 3 Credits	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL CURRENT MY CREDITS AVAILABLE FOR AVERAGING (Tier 2 and 3 Credits not reserved)	0.00	0.00	0.00	0.00	0.00	0.00

	≤ 560 kW Averaging Set		> 560 kW Averaging Set
	≤ 560 kW NOx Credits	≤ 560 kW NMHC+NOx Credits	> 560 kW NOx Credits
Current MY Tier 4 Credits (all credits generated and used)	0.00	0.00	0.00

	Averaging Set - PM Credits	
	> 560 KW	≤ 560 kW
Current MY Tier 4 Credits (all credits generated and used)	0.00	0.00

	Averaging Sets - PM Credits					
	≥ 19 kW	Indirect Fuel Injection (> 19 kW)	< 19 kW	≥ 19 kW (marine diesel)	Indirect Fuel Injection (> 19 kW marine diesel)	< 19 kW (marine diesel)
Current MY Credits (all credits generated and used)						
Tier 2 Credits - not reserved for potential use in Tier 4	0.00	0.00	0.00	0.00	0.00	0.00
Tier 2 Credits - reserved for potential use in Tier 4	0.00	0.00	0.00	0.00	0.00	0.00
Tier 3 Credits	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL CURRENT MY CREDITS AVAILABLE FOR AVERAGING (Tier 2 and 3 Credits not reserved)	0.00	0.00	0.00	0.00	0.00	0.00

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United States
Environmental Protection Agency
Office of Transportation and Air Quality

Manufacturer Averaging, Banking, and Trading Report for Nonroad CI Engines

Last Revision: December 2015 Version Number 3.6

Field Descriptions for Current MY Credit Calc

Fields (Current MY Credit Calc)	Description
Engine Family Name or Test Group	Enter the 12-character engine family name or test group name.
Tier in Effect	Select Tier 2, 3 or 4 based on the standards that apply to the engine family.
If Tier 2, Reserved for Future Use?	If the engine family or test group is subject to Tier 2, but will be reserved for future use in Tiers 3 or 4, select "Y" from the drop-down menu.
Do Tier 4 Alternative Compliance Options Apply? (Y/N)	Select "Y" from the dropdown menu if alternative compliance options apply. If an alternative compliance option(s) apply (including alternate standards, alternate FELs, Temporary Compliance Adjustment Factors (TCAF), etc.), use the Current MY Credit Calc-MANUAL worksheet. The credits from both Current MY Credit Calc worksheets will be reflected in the corresponding averaging set in the Summary worksheets. The Manual worksheet allows the user to enter in both the standards and FELs for the engine family. NOTE: If TCAF applies, please adjust the FEL accordingly and insert a note in the "Comments" field to describe the adjustment.
Gen Sets? (Y/N)	Select "Y" from the dropdown menu if the engine family consists of generator sets. This option only applies to engine families with a power rating above 560 kW.
Air Cooled, hand-startable, and direct injection? (Tier 4 and <8 kW engines only)	Select "Y" from the dropdown menu if the engine family consists of hand-startable, air-cooled, direct injection engines below 8 kW subject to Tier 4 standards. The term hand-startable generally refers to engines that are started using a hand crank or pull cord. Note that these engines may not generate either PM or NMHC+NOx credits but the manufacturer may use credits under the ABT program to ensure that these engines are in compliance (see 40 CFR 1039.101(c) and Table 1 of 40 CFR 1039.102). If "Y" is selected, it is assumed that the alternate PM standard of 0.6 g/kW-hr applies. If the regular Tier 4 PM standard of 0.4 g/kW-hr applies, please select "N".
Average Power (kW)	Enter the average power rating of all configurations within the engine family, calculated on a U.S. volume sales-weighted basis.
Parameter	Select the applicable parameter: NOx, NMHC + NOx or PM
Averaging Set	Selected the applicable averaging set: 1) At or above 19 kW (Tier 2 &3); 2) Below 19 kW (Tier 2); 3) At or above 19 kW (marine diesel only) (Tier 2 & 3); 4) Below 19 kW (marine diesel only) (Tier 2); 5) Above 560 kW (Tier 4); or 6) At or below 560 kW (Tier 4). Note that for Tier 2/3 engine families, manufacturers are allowed to use credits generated on marine engines to demonstrate compliance for land-based applications, but not vice versa.
FEL (g/kW-hr)	Enter the applicable NOx, NMHC + NOx or PM family emission limit (FEL) for the engine family. This value should not exceed the applicable FEL caps under Part 89 or 1039.
Indirect Fuel Injection - Tier 2/3 only (Y/N)	If the engine family is subject to Tier 2 or 3 standards under Part 89, select Y or N to indicate whether the engine family uses indirect fuel injection. Under 89.206(b)(4) emission credits generated from engines rated at or above 19 kW utilizing indirect fuel injection may not be traded to other manufacturers.
Useful Life (Hours)	Enter the useful life for the engine family in hours.
Production Volume (actual sales/production) (S)	Enter the number of nonroad engines produced and sold within the given engine family for the current model year. Do not include engines sold to equipment or vehicle manufacturers that are exempt from the standards to address hardship issues or the need for implementation flexibility. Note that this value corresponds to the variable "S" in the tracking calculations as shown directly below the data entry cells.

Field Descriptions for Current MY Credit Calc

Fields (Current MY Credit Calc)	Description
Percent of Total Production that is Tracked (T)	Enter the fraction of the "Production Volume" that can be tracked to the point of first retail sale. If this fraction is greater than 0.50 untracked engines may be included in the credit calculations. EPA accepts projections of untracked nonroad engines when at least 50 percent of the engines have actually been tracked to the point of first retail sale. If the percent of tracked engines is at or above 90 percent, no adjustment will be made to untracked engines. Note that this value corresponds to the variable "T" in the tracking calculations as shown directly below the data entry cells.
Percent of Tracked Production that is Sold within U.S. (U)	Of those that can be tracked, enter the fraction that were sold domestically within the United States. Note that this value corresponds to the variable "U" in the tracking calculations as shown directly below the data entry cells.
NOx Tracking Adjustment Factor (F)	This factor is calculated automatically in the Current MY Credit Calc worksheet (if using the 'MANUAL' worksheet, this value is entered by the user). The factor is based on the "Percent of Total Production that is Tracked" and adjusts the number of untracked engines that are eligible to participate in ABT depending on the percent of overall sales that can be tracked. If the percent of untracked engines exceeds 50%, then only tracked engines are eligible to participate in the ABT program. If the percent of untracked engines is less than 10%, then no adjustment factor is applied. Note that this value corresponds to the variable "F" in the tracking calculations as shown directly below the data entry cells.
Production Volume Used in Credit Calculations (V)	This value is calculated automatically in the Current MY Credit Calc worksheet (if using the 'MANUAL' worksheet, it is entered by the user). This value represents the production volume eligible to participate in the ABT program and it is the number that is used to calculate the credit balance. Note that this value corresponds to the variable "V" in the tracking calculations as shown directly below the data entry cells.
Tier 2/3 Applicable Standard (g/kW-hr)	The standard is automatically populated in the Current MY Credit Calc worksheet (if using the 'MANUAL' worksheet, the standard is entered by the user) and is based on the Tier, Average Power Rating and Parameter. See Table 1 at 63 FR 57001.
Tier 4 Applicable Standard (g/kW-hr)	The standard is automatically populated in the Current MY Credit Calc worksheet (if using the 'MANUAL' worksheet, the standard is entered by the user) and is based on the Tier, Average Power Rating and Parameter. See Table 1 at 63 FR 57001.
NOx or NMHC+NOx Averaging Credits Generated or Used	Credits are calculated automatically in the Current MY Credit Calc worksheet (if using the 'MANUAL' worksheet, it is entered by the user) and represents the product of: 1) the difference between the NOx + NMHC standard and the FEL; 2) production volume; 3) average power rating; and 4) useful life.
PM Averaging Credits Generated or Used	Credits are calculated automatically in the Current MY Credit Calc worksheet (if using the 'MANUAL' worksheet, it is entered by the user) and represents the product of: 1) the difference between the PM standard and the FEL; 2) production volume; 3) average power rating; and 4) useful life.
Messages	If any of the entered data are incompatible or inconsistent with the program requirements and/or limitations, a note will be automatically displayed in this field. These messages are intended to help identify inconsistencies between the data entered for Tier, Average Power Rating, Averaging Set, and FEL, and are incorporated into both the automatic and manual worksheets.
Comments	This field may be used to enter in any additional information regarding special circumstances or characteristics associated with the engine family name or credit calculations. This field is for informational purposes only and would not affect credit calculations or compliance determinations. The information entered may be used to distinguish between multiple entries for a split engine family, identify issues that EPA should be aware of as the data are evaluated, or track characteristics of the engine family name for internal purposes (e.g., identifying configurations, sub-configurations, model names/numbers, etc.).

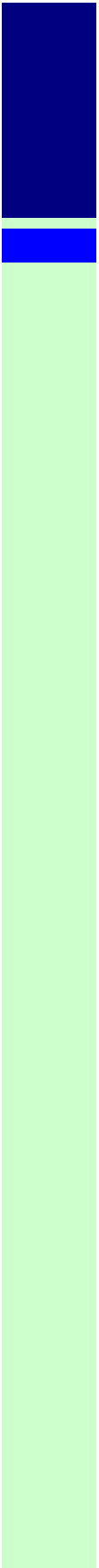
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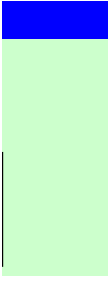
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Field Descriptions for Current MY Credit Calc

Fields (Current MY Credit Calc)	Description
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Manufacturer Averaging, Banking, and Trading Report for Nonroad CI Engines

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Credit Transfers - Tier 2 & 3

Credits Purchased

MY when Credits Earned	Tier in Effect	If Tier 2, Reserved for Future Use?	Averaging Set	Parameter	Date of Transfer	Provider	Recipient	Quantity of Credits Purchased

Summary of Credit Transfers by Averaging Set				
Averaging Set	Purchased	Sold	Net	
NMHC + NOx Credits	Tier 2 < 19 kW	0.0	0.0	0.0
	Tier 2 < 19 kW - res. for Tier 4	0.0	0.0	0.0
	Tier 2 < 19 kW (Marine)	0.0	0.0	0.0
	Tier 2 < 19 kW (Marine) - res. for Tier 4	0.0	0.0	0.0
	Tier 2 > 19 kW	0.0	0.0	0.0
	Tier 2 > 19 kW - res. for Tier 4	0.0	0.0	0.0
	Tier 3 > 19 kW	0.0	0.0	0.0
	Tier 3 > 19 kW (Marine)	0.0	0.0	0.0
	Tier 2 > 19 kW (Marine) - res. for Tier 4	0.0	0.0	0.0
	Tier 3 > 19 kW (Marine)	0.0	0.0	0.0
PM Credits	Tier 2 < 19 kW	0.0	0.0	0.0
	Tier 2 < 19 kW - res. for Tier 4	0.0	0.0	0.0
	Tier 2 < 19 kW (Marine)	0.0	0.0	0.0
	Tier 2 < 19 kW (Marine) - res. for Tier 4	0.0	0.0	0.0
	Tier 2 > 19 kW	0.0	0.0	0.0
	Tier 2 > 19 kW - res. for Tier 4	0.0	0.0	0.0
	Tier 3 > 19 kW	0.0	0.0	0.0
	Tier 3 > 19 kW (Marine)	0.0	0.0	0.0
	Tier 2 > 19 kW (Marine) - res. for Tier 4	0.0	0.0	0.0
	Tier 3 > 19 kW (Marine)	0.0	0.0	0.0

Credits Sold

MY when Credits Earned	Tier in Effect	If Tier 2, Reserved for Future Use?	Averaging Set	Parameter	Date of Transfer	Provider	Recipient	Quantity of Credits Sold

NOTE 1: Emission credits generated from Engines rated at or above 19 kW utilizing indirect fuel injection may not be traded to other manufacturers. (See 89.206(b)(4))

NOTE 2: Emission credits may be exchanged between nonroad manufacturers within the same averaging set. (See 89.206(a))

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Credit Transfers - Tier 4

Credits Purchased

MY when Credits Earned	Averaging Set	Parameter	Date of Transfer	Provider	Recipient	Quantity of Credits Purchased

Summary of Credit Transfers by Averaging Set				
Averaging Set	Purchased	Sold	Net	
NOx Credits	> 560 kW	0.0	0.0	0.0
	≤ 560 kW	0.0	0.0	0.0
NMHC+NOx Credits	≤ 560 kW	0.0	0.0	0.0
	> 560 kW	0.0	0.0	0.0
PM Credits	> 560 kW	0.0	0.0	0.0
	≤ 560 kW	0.0	0.0	0.0

Credits Sold

MY when Credits Earned	Averaging Set	Parameter	Date of Transfer	Provider	Recipient	Quantity of Credits Sold

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Manufacturer Averaging

Instructions

I. Background

A major component of the final rule for nonroad diesel engines is the averaging method based on the model year, engine family, and the NO_x, NMHC + NO_x, or PM information related to credits or deficits under the ABT program. EPA has created this reporting template for model year (MY) 2009 and beyond. This reporting template covers engine families and summary information.

- **Current MY Credit Calc:** This worksheet contains 23 fields, which apply to the model year selected. The first 15 columns are the fields that require data entry or input from the manufacturer. One of these columns (Messages) indicates whether the data entry is correct. This column (Comments) allows for the entry of any additional comments. This column (Calculations) allows for the entry of any additional calculations for the model year selected (2009 and beyond). There are filter buttons for each column.

- **Current MY Credit Calc – MANUAL:** This worksheet contains the same 23 fields. This worksheet should be used only when there are unique circumstances where the automatic calculation worksheet are unable to process accurately. In this worksheet, with the exception of the summary section below the data entry cells are automatically calculated for both NMHC + NO_x and PM. Note that as with the Current MY Credit Calc worksheet, there are filter buttons for each column.

- **Field Descriptions:** This worksheet contains detailed notes on each of the fields, including the existence of any drop-down menus, and any other information that would be helpful in understanding the data entry requirements.

- **Credit Transfers – Tier 2 & 3:** This worksheet summarizes any credit transfers that a manufacturer has not transferred any credits to a separate entity.

- **Credit Transfers – Tier 4:** This worksheet summarizes any credit transfers that a manufacturer has not transferred any credits to a separate entity.

- **Summary – NMHC + NOx:** This worksheet provides an overall summary and allows the manufacturer to enter in credits from previous model years. Credits will be used to document compliance with the NMHC + NOx standard used to apply credits from one Tier or Averaging Set to another. If the data Messages column. For example, there are limitations on the application of Tier 2 or 3 credits that are applied to Tier 4 balances are subject to a 20 per

- **Summary – PM:** This worksheet provides an overall summary of the non enter in credits from previous model years so that banked credits can be pro worksheet also applies to this worksheet.

III. Entering Data for the Current Model Year

Several fields have drop-down menus within the data entry cells. These m drop-down menu is displayed within each cell. Filters are also available and

Step 1: Enter in the appropriate information for each data element in the first calculated or preset values based on the information and data entered in the data for the fields within the "Current MY Credit Calc – MANUAL" worksheet

Each engine family (or portion of each engine family) that is subject to a speed and FEL are compatible for each entry. Within both the automatic and manual limitations. For example, if Tier 1 and NOx are selected, but the Average Power rating.

Based on the information you enter, the "Current MY Credit Calc" worksheet summarized based on the Tier, averaging set, and parameter.

Note that any extra rows that do not contain any data, can be left blank. If a

Step 2: If any transfer of credits/deficits have occurred with another manufa

IV. Summary of NOx and NMHC + NOx Credits

The "Summary – NMHC + NOx" worksheet contains a summary of all NOx balances. The initial step requires the entry of carryover or traded credit amount step below. In this worksheet, any cells that are highlighted with a color will Tier 2 & 3," or "Credit Transfers – Tier 4" worksheets or from other data in the

Step 1: Credit Balances Before Averaging: Enter any carryover credit balance in this summary sheet based on data entered and calculated within the "Current respectively.

Step 2: Credit Usage and Averaging: Using the existing balances (as included) applied to the current model year credit balances. Each line item in this section compatible averaging set.

Since indirect fuel injection credits for engines at or above 19 kW cannot be used in 2 and 3 averaging sets at or above 19 kW should only be applied to the Tier 2 credits in the marine diesel averaging sets may be used to cover a shortfall

The Messages column is automatically populated with an error message if a number of credits to be added to the selected current model year Tier and a percent reduction if applicable. Note that if there is an error in the Messages column

The Summary of Credit Balances section of the worksheet is automatically populated with "Balances" totals include traded, banked, and current MY credit balances and

V. Summary of PM Credits

The "PM Summary" worksheet contains a summary of all PM credits (both carryover or traded PM credit balances. The application and averaging of the PM credits highlighted with a color will be automatically populated based on information from other worksheets or from other data in this worksheet. Any cell that is gray indicates

Step 1: Credit Balances Before Averaging: Enter any carryover credit balance or PM activity are automatically populated in this summary sheet based on data entered in "Transfers – Tier 4" worksheets, respectively.

Step 2: Credit Usage and Averaging: Using existing carryover or current credit balance applied/averaged to the current model year credit balance. Ensure that credit

The program elements that apply to PM regarding the transfer of marine credits for indirect fuel injection are not available for trading. For Tier 2 and 3, marine

The Messages column is automatically populated with an error message if a number of credits to be added to the selected current model year, Tier, and percent reduction, if applicable. Note that if there is an error in the Message

The Summary of Credit Balances section of the worksheet is automatically populated with traded, banked, and current MY credit balances and are combined into the

Paperwork Reduction

The public reporting and recordkeeping burden for this collection of information is estimated to average 15 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and reviewing and reporting the information, the accuracy of the provided burden estimates, and any suggested methods for minimizing the burden. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to the Director, Collection Strategies Division, U.S. Environmental Protection Agency, Washington, DC 20460-0287, and OMB control number (2060-0287) in any correspondence. Do not send the completed form to this office.

United States
Environmental Protection Agency
Office of Transportation and Air Quality

Reporting, Banking, and Trading Report for

Last Revision: December 2015 Version Number 3.6

Reporting, banking, and trading (ABT) program for NO_x, NMHC + NO_x at the engine level to which the engine family is certified. In order to help streamline reporting, EPA created an Excel-based template to assist manufacturers with the data collection and reporting subject to the ABT reporting requirements under 40 CFR Part 86.

The template contains all of the information required to calculate credits for each engine family for the manufacturer. The next seven columns (highlighted in light green) contain the data entered are inconsistent with the program requirements or comments or notes that may apply to the data or credit calculation are provided. There are arrows for each column that can be used to filter or sort by clicking on them.

The template also contains fields and format as the Current MY Credit Calc worksheet, but it also includes alternative compliance options, such as split engine families, alternative compliance options, and the Messages column. The Messages column is by average set and parameter. The totals within this worksheet are calculated by parameter. In the Current MY Credit Calc worksheet, filters may be used within each column by clicking on the filter arrows.

The template contains 23 fields in the first two worksheets, including a description of the field and whether the field is a calculated value or a user input.

The template also contains data for Tier 2 and Tier 3 that have occurred between manufacturers.

The template also contains data for Tier 4 that have occurred between manufacturers. The use of the template is required for Tier 4 that have occurred between manufacturers.

of the nonroad NMHC + NOx and NOx credits that are reflected in the model year credit calculation. To ensure that banked credits may be properly applied and compared to current model year credits, the Credit Usage and Averaging section to the right of the Summary sheet entered in the Credit Usage and Averaging section is inconsistent with the previously banked Tier 1 NOx credits, which may not be applied to current model year credits. Any discounts or limitations are integrated into the credit calculation.

road PM credits that have been calculated from the first worksheet. The credit calculation is properly applied and compared to current model year credits. The credit calculation is integrated into the credit calculation.

menus provide a specific set of choices and using this list, you may be able to allow you to view a specific subset of data (e.g., Tier 2 entries or Tier 1 entries).

at least 15 columns of the "Current MY Credit Calc" worksheet. The new worksheet will be the first 15 columns. If special circumstances require additional flexibility, the totals will be automatically reflected in the appropriate Summary sheet.

Specific standard or averaging set, should have its own separate line item. If special circumstances require additional flexibility, a note will appear in the "Message" column if data is not available. If the power Rating is at or below 560 kW, a note will appear in the "Message" column.

It will calculate the corresponding credit balances for the engine family.

If additional rows are needed, please contact EPA for a revised form.

Manufacturer, enter all relevant information into the fields listed in the application.

and NMHC + NOx credits and deficits (both banked and current year) and deficit balances. The process of applying and averaging these credits and deficits will be automatically populated based on information in the "Current MY Credit Calc" summary worksheet. Any cell that is gray indicates that data is not available.

balances from prior years. Note that current model year credits and deficits are calculated in the "Current MY Credit Calc," "Current MY Credit Calc – MANUAL," "Credit Usage and Averaging," and "Summary" worksheets.

cluded in the "Credit Balances before Averaging" section), indicate
ation specifies the type of credits being used as well as the Tier to

traded, the credit balances for these engines are maintained sep
r 4 averaging set above 560 kW if the engine families from which
in the corresponding non-marine averaging set (see 40 CFR 89.2

an invalid selection has been made. The number of credits to be :
veraging set category are displayed in the two right-hand column
n, the Credits Subtracted and Credits Added columns will not be c

populated with the credit balances based on the application of NC
d are shown for NOx and NMHC + NOx. Note that credit balance

banked and current year) and allows for the application of these c
ese existing PM credits with current model year PM credits is sui
n in the "Current MY Credit Calc," "Current MY Credit Calc – MAN
tes that data entry is not applicable or required.

balances from prior years in the appropriate averaging set. Note th
ntered and calculated within the "Current MY Credit Calc," "Curren

model year credits (as included in the Credit Balances before Ave
dits are applied within the corresponding averaging set and maint

redits and the limitations on trading associated with indirect fuel inj
ne diesel credits can be transferred within the final credit balance

an invalid selection has been made. The number of credits to be :
averaging set category are displayed in the two right-hand colum
s column, the Credits Subtracted and Credits Added columns wil

populated with the credit balances based on the application of PM
overall PM averaging sets.

Act Notice

average 43 hours per response. Send comments on the Agency's need for this
minimizing respondent burden, including through the use of automated collection
y (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the
his address.

Nonroad CI Engines

, and PM. Manufacturers must track the implementation of these provisions online and standardize the process by which manufacturers submit organization, presentation, and submittal of their annual reports for Model 9 (Tier 2 and 3) as well as 40 CFR Part 1039 (Tier 4).

ne family and track the overall credit balances for each nonroad averaging (green) are preset or calculated values based on the data entered and cannot be changed; or limitations. There is one additional column to the right of these seven columns associated with the engine family. This worksheet only applies to the arrow within the column header.

incorporates automatic calculations or preset values for only three of the columns (e.g., etc.) that the automatic calculations in the Current MY Credit Calculation column, all columns allow for data entry or input from the user. The totals in the arrow will be automatically reflected in the corresponding Summary sheet totals for the arrow within the column header.

the required data or information, how the data should be entered, the value based on preceding entries in the spreadsheet).

urers. The use of this worksheet will not be necessary in cases where the

of this worksheet will not be necessary in cases where the manufacturer

within the Current MY worksheets and/or the Credit Transfers worksheets Current MY credits. This worksheet allows the manufacturer to outline how Summary of Credit Balances (both before and after averaging), should be t with program requirements or limitations, a note will appear within the o (i.e., averaged with) credits or deficits associated with Tier 4. In addition, : Summary of Credit Balances and Final Credit Balances sections.

et or entered into the second worksheet and allows the manufacturer to same approach described above for the Summary – NMHC + NOx

select the applicable option for each line item entry. The arrow for the nly). The filters can be used by clicking the arrow within the header.

xt seven columns in this worksheet (highlighted in light green) are ibility for the credit calculations (e.g., split engine families), enter in relevant ary worksheet).

: item entry. Ensure that the Tier, Average Power Rating, Averaging Set, a and/or field selections are inconsistent with program requirements or sage" column that highlights the incompatibility of the averaging set and

amily. Below the data entry rows, the current model year credit totals are

1 and specify how many entries/rows will be required.

ropriate "Credit Transfer" (Tiers 2 & 3 or Tier 4) worksheet.

year) and allows for the application of these credits to current model year existing credits with current model year credits is summarized in the second MY Credit Calc," "Current MY Credit Calc – MANUAL," "Credit Transfers – ntry is not applicable or required.

l credits acquired or sold through trading activity are automatically populated dit Transfers – Tier 2 & 3," or "Credit Transfers – Tier 4" worksheets,

the number of traded, banked, or current model year credits that should be which the credits will be applied. Ensure that credits are applied to a

arately for both banked and current MY credits. Note that credits from Tiers credits are being applied are rated above 560 kW. For Tiers 2 and 3, '04(c)(3) and (4)).

subtracted from the selected Tier and averaging set category as well as the s. These values are automatically calculated and will reflect the 20 percent calculated.

NOx and NMHC + NOx credits in the preceding sections. The "Final Credit Balances for indirect fuel injection are not available for trading.

credits to current model year balances. The initial step requires the entry of summarized in the second step. As with other worksheets, any cells that are MANUAL, "Credit Transfers – Tier 2 & 3," or "Credit Transfers – Tier 4"

at current model year credits and credits acquired or sold through trading at MY Credit Calc – MANUAL, "Credit Transfers – Tier 2 & 3," or "Credit

averaging section), indicate the number of credits that should be main separate balances for indirect fuel injection.

section credits are consistent with those for NMHC + NOx. Credit balances s section to a corresponding nonmarine averaging set, if desired.

subtracted from the selected Tier and averaging set category as well as the ns. These values are automatically calculated and will reflect the 20 l not be calculated.

l credits in the preceding rows. The "Final Credit Balances" totals include

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