











United States  
Environmental Protection Agency  
Office of Transportation and Air Quality

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

Last Revision: December 2013 Version Number 3.2

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 is applicable, use the Current MY Credit Calc-MANUAL worksheet to calculate the credits. The Manual worksheet allows the user to enter in the applicable standard for the engine family.
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.).

### Paperwork Reduction Act Notice

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<p><i>The public reporting and recordkeeping burden for this collection of information is estimated to average 43 hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number (2060-0287) in any correspondence. Do not send the completed form to this address.</i></p>	

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