

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

Last Revision: December 2013 Version Number 3.2

#### Current Model Year Credit Calculations

Model Year:	 1																			
Engine Family Name or Test Group	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 F Injection - 2/3 only (	uel Tier (Hours)	Production Volume (actual sales/ production) (S)	Percent of Total Per Production that Pro is Tracked (T) Solo	rcent of Tracked oduction that is d 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
											+ +									
									_											
									_											
												Dago	1 of 13							

Engine Fam Name or Te Group	ly Ti st Ei	ier in Reserve ffect for Futur 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
	_					+			+													
									+	1												
						-			-													
	_		-		1			I	Engine Familie	es Using Credits: V	/ = (S*T*U) + [(S*(	1-T)*(U+(1-U)*(1-F))]	ļ	If T >= 0.70 but < 0.90,	hen F = (0.50) * (T) +	(0.55)				1		

Engine Families Generating Credits: V = (S\*T\*U) + [(S\*(1-T)\*U\*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

							if T
		Ave	raging Sets - NMH	C + NOx Credits			
	≥ 19 kW	Indirect Fuel Injection	< 19 kW	≥ 19 kW (marine diesel)	Indirect Fuel Injection	< 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	1
Tier 2 Credits - reserved for potential use in Tier 4	0.00	0.00	0.00	0.00	0.00	0.00	1
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 Ave	raging 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 (marine diesel)	Indirect Fuel Injection	< 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

Paperwork Reduction Act Notice	OMB No. 206 Approval Exc
The public reporting and recordisegoing budien for this callection of information is estimated to average 43 hours per response. Servid comments on the Agency's need for this information, the accuracy of the provided burden estimates, and an suggested methods for minimizing respondent budien, to use of automated to decision techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (28221), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.	08/31/20 EPA Form 59



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

Last Revision: December 2013 Version Number 3.2

Current Model Year Credit Calculations - MANUAL

Model Year:	1																			
Engine Family Name or Test Group	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) (Hours)	Production Volum (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
				<u> </u>																
				<u> </u>																
				<u> </u>																
				<u> </u>																
				<u> </u>																
				<u> </u>																
				<u> </u>																
				<u> </u>																
				<u> </u>																
				<u> </u>																
				<u> </u>																
				<u> </u>																
				<u> </u>																
				<u> </u>																
				<u> </u>																
				<u> </u>																
				<u> </u>																
				<u> </u>																
				<u> </u>																
				<u> </u>																

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
	1				1							1										

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

#### Engine Families Using Credits: V = (S\*T\*U) + [(S\*(1-T)\*(U+(1-U)\*(1-F))] Engine Families Generating Credits: V = (S\*T\*U) + [(S\*(1-T)\*U\*F)]

							if T >= 0.90, then F
		Av	eraging Sets - N	MHC + NOx Cred	its		
	≥ 19 kW	Indirect Fuel Injection	< 19 kW	≥ 19 kW (marine diesel)	Indirect Fuel Injection	< 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	1
Tier 2 Credits - reserved for potential use in Tier 4	0.00	0.00	0.00	0.00	0.00	0.00	1
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	

F =	1			
		≤ 560 kW Ave	raging 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 Set	ts - PM Credits		
	≥ 19 kW	Indirect Fuel Injection	< 19 kW	≥ 19 kW (marine diesel)	Indirect Fuel Injection	< 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

Paperwork Reduction Act Notice
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 advantated collection bechanges to the burden, Collection Stategies Divisor. U.S. Environmental Protection Agency of the other advantation of the send advantated collection bechanges to the burden, burden, burden and form to this address.



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.

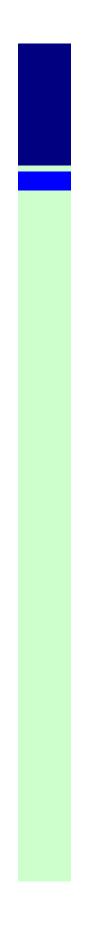
Fields (Current MY Credit Calc)	Description
Percent of Total Production that is Tracked (T)	Enter the fraction of the "Production Volume" that can be tracked to the point of first retail sale. If this fraction is greater than 0.50 untracked engines may be included in the credit calculations. EPA accepts 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.
	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.).
	ork Reduction Act Notice

# Paperwork Reduction Act Notice

### Fields (Current MY Credit Calc)

#### Description

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.







Credits Purchased

#### 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

#### Credit Transfers - Tier 2 & 3

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		
										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		
									NMHC + NOx	Tier 2 > 19 kW	0.0	0.0	0.0		
									Credits	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 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 3 > 19 kW (Marine)	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 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		
									PM Credits	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 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 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))

#### Paperwork Reduction Act Notice

Paperwork Reduction Act Notice 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 (2827), 1200 Pennsylvaria 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.



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

Last Revision: December 2013 Version Number 3.2

#### Credit Transfers - Tier 4

#### Credits Purchased

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

	Sumi	nary of Credit Transfers	s by Averagii	ng Set	
Τ	Avera	ging Set	Purchased	Sold	Net
	NOx Credits	> 560 kW	0.0	0.0	0.0
	NOX Creaits	≤ 560 kW	0.0	0.0	0.0
	NMHC+NOx Credits	≤ 560 kW	0.0	0.0	0.0
	PM Credits	> 560 kW	0.0	0.0	0.0
	Finicrealits	≤ 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

#### Paperwork Reduction Act Notice

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.





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

Summary - NMHC + NOx

м	anufacturer:				Averaç	jing Set											Credit	Jsage and Av	eraging				
T				NO <sub>x</sub> /NMHC+NO <sub>x</sub>	Credits - Tier 2 and	13		NOx/NMHC+NO	x Credits - Tier 4	Number of			1	FROM					то			FROM	
1		≥ 19 kW	Indirect Fuel Injection	< 19 kW	≥ 19 kW (marine diesel)	Indirect Fuel Injection	< 19 kW (marine diesel)	> 560 kW	≤ 560 kW	Credits to be Applied	Tier	Parameter	Туре	Averaging Set	Indirect Injecti (Tiers 1, 3 onl	on? Reser	red? Tier	Parameter	Averaging Set	Indirect Fuel Injection? (Tiers 1, 2, or 3 only)	Messages	Credits Subtracted	d
				•								•											0
	before Averaging:	-																					0
	edits Acquired via Trading Activity Tier 2 NMHC+NOx Credits acquired via trading		-																				2
	Tier 2 NMHC+NOX Credits acquired via trading Tier 2 NMHC+NOX Credits acquired via trading - previously reserved for Tier 4																						
	Tier 3 NMHC+NOx and Tier 4 NOx Credits acquired via trading																						
	Tier 4 NMHC+NOx Credits	_																					
	redits Carried Over from Previous Model Years																						
	Tier 1 (NOx only) credits		1			1																	
	Tier 2 NMHC+NOx credits - not reserved for Tier 4																						
	Tier 2 NMHC+NOx credits - not reserved for Tier 4 Tier 2 NMHC+NOx credits - previously reserved for Tier 4		+	1	l	1	+																
	Tier 3 NMHC+NOx credits and Tier 4 NOx credits		+		1	1																	6
	Tier 4 NMHC+NOX Credits																						
	urrent MY Credits Generated and Used			1																			Ζ.
	Tier 2 NMHC+NOx credits - not reserved for Tier 4																						
	Tier 2 NMHC+NOx credits - potentially reserved for Tier 4																						
	Tier 3 NMHC+NOx credits and Tier 4 NOx credits																						6
	Tier 4 NMHC+NOx Credits																						0
e	dit Balances:																						
	edits Acquired via Trading Activity																						
	Tier 2 NMHC+NOx Credits acquired via trading																						0
	Tier 2 NMHC+NOx Credits acquired via trading - previously reserved for Tier 4																						(
	Tier 3 NMHC+NOx and Tier 4 NOx Credits acquired via trading																						1
	Tier 4 NMHC+NOx Credits																						
	redits Carried Over from Previous Model Years Tier 1 (NOx only) credits																						1
_																							
	Tier 2 NMHC+NOx credits Tier 2 NMHC+NOx credits - previously reserved for Tier 4																						
	Tier 3 NMHC+NOx credits and Tier 4 NOx credits																						
	Tier 4 NMHC+NOx Credits																						
	urrent MY Credits																						_
	Tier 2 NMHC+NOx credits (not reserved for potential Tier 4 use)																						
	Tier 2 NMHC+NOx credits - previously reserved for Tier 4									** Note: Credits applied are rate	s from Tiers 2 an	d 3 averaging se	ts at or above	19 kW should only be ap	pplied to the	Tier 4 avera	ing set above	560 kW if the eng	nes families from which c	edits are being			
	Tier 3 NMHC+NOX credits - previously reserved for ther 4									applied are rate	u above 500 kvv												
	Tier 4 NMHC+NOX credits and Tier 4 NOX credits	_	_																				
	Tiel 4 Ninho Nox Clealis																						
<u>ale</u>	ances																						
Γ																							
	FINAL Tier 1 (NOx only) Balance available for Banking/Trading *	0.0	0.0		0.0	0.0																	
-																							
	FINAL Tier 2 (NMHC+NOx) Balance available for Banking/Trading * (not reserved) FINAL Tier 2 NMHC+NOx credits reserved for potential use in Tier 4	0.0	0.0	0.0	0.0	0.0	0.0																
				0.0			0.0																
	FINAL Tier 3 (NMHC+NOx) Balance available for Banking/Trading *	0.0	0.0		0.0	0.0																	
_	FINAL Tier 4 (NOx) Balance available for Banking/Trading							0.0	0.0														
	FINAL Tier 4 (NMHC+NOx) Balance available for Banking/Trading								0.0														
ĺ	Credits apported from oppings at an above 10 kW using Indiract Eur Heinerice	ible for trading																					
	Credits generated from engines at or above 19 kW using Indirect Fuel Injection are not elig	nore for trauing.																					
					Paperwork Red	untion Act Mati	iaa																



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

Last Revision: December 2013 Version Number 3.2

Summary - PM

odel Year:	Manufacturer:				Averag	ing Set			
				PM Credits			PM Credi	ts - Tier 4	
	•	≥ 19 kW	Indirect Fuel Injection	< 19 kW	≥ 19 kW (marine diesel)	Indirect Fuel Injection	< 19 kW (marine diesel)	> 560 kW	≤ 560 kW
edit Balances	before Averaging:				-				
	Credits Acquired via Trading Activity								
	Tier 2 PM Credits acquired via trading								
	Tier 2 NMHC+NOx Credits acquired via trading - previously reserved for Tier 4								
	Tier 3 and Tier 4 PM Credits acquired via trading								
	Credits Carried Over from Previous Model Years								
	Tier 2 PM credits - not reserved for Tier 4								
	Tier 2 PM credits - previously reserved for Tier 4								
	Tier 3 and Tier 4 PM credits								
	Current MY Credits Generated and Used								
	Tier 2 PM credits - not reserved for Tier 4								1
	Tier 2 PM credits - potentially reserved for Tier 4								
	Tier 3 and Tier 4 PM credits								
ummary of Crea									
	Credits Acquired via Trading Activity								

dit Balances:	dit Balances:											
Credits Acquired via Trading Activity												
Tier 2 PM Credits acquired via trading												
Tier 2 NMHC+NOx Credits acquired via trading - previously reserved for Tier 4												
Tier 3 and Tier 4 PM Credits acquired via trading												
Credits Carried Over from Previous Model Years												
Tier 2 PM credits												
Tier 2 PM credits - previously reserved for Tier 4												
Tier 3 and Tier 4 PM credits												
Current MY Credits												
Tier 2 PM credits (not reserved for potential Tier 4 use)												
Tier 2 PM credits - previously reserved for Tier 4												
Tier 3 and Tier 4 PM credits												

# Credit Usage and Averaging FROM то FROM то Number of Credits to be Applied \*\* Messages Indirect Fuel njection? (Tier 2 or 3 only) Reserved? (Tier 2) Credits Subtracted Credits Added туре Averaging Set Averaging Set Tier Tier

Final Credit Balance

	FINAL Tier 2 Balance available for Banking/Trading * (not reserved)	0.0	0.0	0.0	0.0	0.0	0.0		
1	FINAL Tier 2 PM credits reserved for potential use in Tier 4	0.0	0.0	0.0	0.0	0.0	0.0		
	FINAL Tier 3 Balance available for Banking/Trading *	0.0	0.0		0.0	0.0			
	FINAL Tier 4 Balance available for Banking/Trading							0.0	0.0

\*\* Note: Credits from Tiers 2 and 3 averaging sets above 19 kW should only be applied to the Tier 4 averaging set above 560 kW if the engines families from which credits are being applied are rated at or above 560 kW.

\* Credits generated from engines at or above 19 kW using Indirect Fuel Injection are not eligible for trading.

Paperwork Reduction Act Notice	OMB No. 2060-0287
The public reporting and recordiveoping 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	Approval Expires on 08/31/2014 EPA Form 5900-125
Agency (28227), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number (2050-0287) in any correspondence. Do not send the completed form to this address.	