



<sup>1</sup> Select load factors of 0.47 and 0.85 for Nonhandheld and Handheld engines, respectively. Alternative Load Factors may be used if there is an associated Special Test Procedure as approved by EPA under 40 CFR 1065.10(c)(2).

<sup>2</sup> Include only the number of engines that are eligible to participate in the ABT program within the family during the model year, as described in 40 CFR 1054.701(i).

<sup>3</sup> If the Engine Class is NHH equipment using HH engines, the production volume should include only the engines in the family used in NHH equipment. A separate line item must be entered for the HH equipment using HH engines from the same family.

EXHAUST CREDIT SUMMARY		
AVERAGING SET		CREDIT TOTALS (kg)
Nonhandheld	Standard Credits - Class I (POSITIVE)	0
	Standard Credits - Class I (NEGATIVE)	0
	Standard Credits - Class II (POSITIVE)	0
	Standard Credits - Class II (NEGATIVE)	0
	Early "Transitional" Credits - Class I <sup>1</sup>	0
	Early "Enduring" Credits - Class I <sup>1</sup>	0
	Early "Transitional" Credits - Class II <sup>1</sup>	0
	Early "Enduring" Credits - Class II <sup>1</sup>	0
	Standard Credits - HH Used in NHH Equipment (POSITIVE)	0
	Standard Credits - HH Used in NHH Equipment (NEGATIVE)	0
	Handheld	Standard Credits - Class III, IV, and V (POSITIVE)
Standard Credits - Class III, IV, and V (NEGATIVE)		0

<sup>1</sup> Transitional and Enduring Credits may only be accrued through 2011 for Class I and through 2010 for Class II (2013 and 2012 for Small Volume Manufacturers, respectively).

OMB No. 2060-0338  
Approval Expires on  
8/31/2012  
EPA Form 5900-131

**Paperwork Reduction Act Notice**

The public reporting and recordkeeping burden for this collection of information is estimated to average 26 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 in any correspondence. Do not send the completed form to this address.



Emission Family Name of Equipment	Permeation Family Name for Fuel Tank	Equipment Category	Small Volume Emission Family?	Credit Type	Total Area (m <sup>2</sup> )	Production Volume (all fuel tanks) <sup>1</sup>	FEL (g/m <sup>2</sup> /day) <sup>2</sup>	Test Temperature (°C)	Adjustment Factor	Standard (g/m <sup>2</sup> /day)	Credit Balance (kg)	Messages

<sup>1</sup> If the Engine Class is NHH equipment using HH engines, the production volume should include only the engines in the family used in NHH equipment. A separate line item must be entered for the HH equipment using HH engines from the same family.  
<sup>2</sup> If Standard and FEL are based on testing at 28° C, an FEL below 5.0 g/m<sup>2</sup>/day must be based on emission measurements. If FEL is at or above 5.0 g/m<sup>2</sup>/day, then FEL must either be based on emission measurements for all such families, or the FEL must be an assigned value of 10.4 g/m<sup>2</sup>/day. If Standard and FEL are based on testing at 40° C, an FEL below 8.3 g/m<sup>2</sup>/day must be based on emission measurements. If FEL is at or above 8.3 g/m<sup>2</sup>/day, then FEL must either be based on emission measurements for all such families, or the FEL must be an assigned value of 17.3 g/m<sup>2</sup>/day.

EVAPORATIVE CREDIT SUMMARY	
AVERAGING SET	CREDIT TOTALS (kg)
Equipment using Nonhandheld Engines: Standard Credits	0
Equipment using Nonhandheld Engines: Early Credits	0
Equipment Using Handheld Engines: Standard Credits	0
Equipment Using Handheld Engines: Early Credits	0
Cold-Weather Fuel Lines (MY 2012 - 2015 ONLY)	0

**Messages**

---

This category includes Nonhandheld Equipment using Handheld Engines as indicated in 1054.701(c)(4).

This category includes Nonhandheld Equipment using Handheld Engines as indicated in 1054.701(c)(4).

OMB No. 2060-0338  
Approval Expires on  
8/31/2012  
EPA Form 5900-131

**Paperwork Reduction Act Notice**

The public reporting and recordkeeping burden for this collection of information is estimated to average 26 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 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 Small Spark Ignition Engines

Last Revision: August 2010 Version Number: 2.2

Field Descriptions (Exhaust and Evaporative Current MY Credit Calculations)

FIELD	DESCRIPTION	
	EXHAUST	EVAP
Engine Family Name/ Emission Family Name of Equipment	Enter the 12-character emission family name for the engine.	Enter the 12-character emission family name for the equipment.
Permeation Family Name for Fuel Tank	NA	Enter the permeation family name for the fuel tank for which your evaporative emission ABT credits are being generated or used.
Engine Class	Select the applicable engine class from the drop-down menu. For Nonhandheld (NHH) engines, select Class III, IV, or V. For Handheld (HH) engines, select Class I or II. If the engine family includes handheld engines with a displacement at or below 80 cc that are used in Nonhandheld equipment (and thus, would generate or use NHH credits), select the option "HH Used in NHH Equip."	NA
Equipment Category	NA	Select the applicable category from the drop-down menu: NHH Class I, NHH Class II, NHH Equipment using HH Engine, HH Equip w/ Nylon Fuel Tank, HH Equip using NHH Engine, HH (Other), or Cold-Weather Fuel Lines. Note that credits for Cold-Weather Fuel Lines are calculated in accordance with 40 CFR 1054.145(h).
Small Volume Emission Family		Indicate whether or not the emission family is small volume.
Credit Type	Select the type of credits being accrued: Transitional, Enduring, or Standard. See 40 CFR 1054.740(a) for specifications on transitional and enduring credits. Transitional credits may be accrued through 2010 for Class II engines and through 2011 for Class I engines. According to 40 CFR 1054.145(a), Small volume engine manufacturers may accrue transitional credits through 2012 for Class II engines and through 2013 for Class I engines. Transitional credits can be used from 2011 to 2013 for Class II engines (2013-2015 Sm. Vol) and from 2012 to 2014 for Class I engines (2014-2016 Sm. Vol).	Select Early or Standard. Early credits may be earned only for HH equipment as specified in 40 CFR 1054.145(f). The equipment must use fuel tanks with a FEL < 1.5 g/m <sup>2</sup> /day (or 2.5 g/m <sup>2</sup> /day for testing at 40 °C). Early credits may be accrued before 2011 for structurally integrated nylon fuel tanks, before 2012 for HH equipment using NHH engines, before 2013 for small volume emission families, and before 2010 for all other HH equipment. After these model years, only standard credits may be accrued. For NHH equipment, only standard credits may be accrued starting in 2011 for equipment using Class II engines and in 2012 for equipment using Class I engines (including NHH equipment using HH engines).
Engine Displacement	Enter the displacement for the engine family. This value is used to determine the applicable FEL cap for Class I engines, which differs for engines below 100 cc and engines at or above 100 cc.	NA
Load Factor	Select either 0.47 (if NHH) or 0.85 (if HH). An alternate load factor (a constant dependent on the test cycle over which the engine is certified) may be entered as specified by EPA based on approved use of special test procedures for a family under 40 CFR 1065.10(c)(2).	NA
Maximum Power (kW)	Enter the maximum modal power of the emission data test engine over the certification test cycle.	NA
Useful Life (hours)	Select the useful life of the engine family in hours (see 40 CFR 1054.107). The options for Class I engines are 125, 250, or 500 hours. The options for Class II are 250, 500, or 1,000 hours. The options for Class III, IV, and V engines are 50, 125, and 300 hours. You may enter a different value for nonhandheld engine families only if you have a longer useful life approved by EPA under 40 CFR 1054.107.	The useful life is 5 years for all emission families. This value is not displayed in the 'Current MY Credit Calc-EVAP' worksheet, but is included in the credit calculation.
Total Area (m <sup>2</sup> )	NA	Enter the internal surface area of a fuel tank in the family, in m <sup>2</sup> .
Production Volume	Enter the applicable production volume for the engine family. Include only the number of engines that are eligible to participate in the ABT program within the family during the model year, as described in 40 CFR 1054.701(i).  Engine Families eligible to participate in both the Transition Program for Equipment Manufacturers and the Delegated Assembly program should refer to section 1054.625(j)(2)(iv) for the appropriate production volume to use. If the manufacturer does not perform an audit of its equipment manufacturers, the value for eligible production volume entered by the manufacturer shall be reduced by 10 percent; if the manufacturer does perform an audit, the production volume should include only those engines for which the equipment manufacturer did not use the provisions of section 1054.625.  If the Engine Class is HH Used in NHH Equip, the production volume should include only the engines in the family used in NHH equipment. A separate line item must be entered for the HH engines used in HH equipment.	Enter the applicable production volume for the engine family. Include only the number of engines that are eligible to participate in the ABT program within the family during the model year, as described in 40 CFR 1054.701(i).  If the Engine Class is NHH Equip using HH Engine, the production volume should include only the engines in the family used in NHH equipment. A separate line item must be entered for the HH equipment using HH engines of the same family.
FEL (g/kW-hr)	Enter the applicable family emission limit in g/kW-hr. If the FEL exceeds the applicable cap, an error message will be displayed in the far right column. The FEL must equal 10.0g/kW-hr for Class I engines accruing Transitional Credits and 8.0g/kW-hr for Class II engines accruing Transitional credits.	Enter the applicable FEL for the engine family in g/m <sup>2</sup> /day. Note that FEL caps apply starting in 2014 for Class II equipment and in 2015 for Class I equipment and handheld equipment. These FEL caps are 5.0 g/m <sup>2</sup> /day (for 28°C) and 8.3 g/m <sup>2</sup> /day (for 40°C). For small volume emission families, the FEL caps are 8.0 g/m <sup>2</sup> /day (for 28°C) and 13.3 g/m <sup>2</sup> /day (for 40°C). Note that for Cold-Weather Fuel Lines, the FEL should be established based on emission measurements as specified in 40 CFR 1060.515 and may not exceed 400 g/m <sup>2</sup> /day.
Test Temperature	NA	Select the applicable test temperature from the drop-down menu (28° C or 40° C). This selection will determine the value for the adjustment factor and standard.
Adjustment Factor	NA	This field will be automatically populated based on the test temperature selected as described above. If the test temperature is 28° C, then the Adjustment Factor is 1.0; if the test temperature is 40° C, then the Adjustment Factor is 0.6. For Cold-Weather Fuel Lines, the Adjustment Factor is 1.0.
Standard (g/kW-hr)	This field will be automatically populated with the applicable HC+NOx standard (in g/kW-hr), based on the entries for "Class" and "Displacement."	This field will be automatically populated based on the test temperature selected as described above. If the test temperature is 28° C, then the Standard is 1.5 g/m <sup>2</sup> /day; if the test temperature is 40° C, then the Standard is 2.5. For Cold-Weather Fuel Lines, the standard is 290 in 2012, 275 in 2013, 260 in 2014, and 245 in 2015.
Credit Balance (kg)	This field will be automatically populated with the applicable HC+NOx exhaust credit balance for the engine family based on the following formula: Credits (kg) = (Std - FEL) x (Volume) x (Power) x (Useful Life) x (Load Factor) x (10 <sup>-3</sup> )	This field will be automatically populated based on the following credit calculation formula: Credits (kg) = (STD-FEL) x (Total Area) x (Production Volume) x (Useful Life) x (Adjustment Factor) x (365) x (10 <sup>-3</sup> )

Paperwork Reduction Act Notice

OMB No. 2060-0338  
Approval Expires on  
8/31/2012  
EPA Form 5900-131

The public reporting and recordkeeping burden for this collection of information is estimated to average 26 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 (2622T), 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.



Manufacturer Averaging, Banking, and Trading Report for Small Spark Ignition Engines

Last Revision: August 2010 Version Number: 2.2

Credit Summary for the Part 1054 Small SI ABT Programs

MODEL YEAR: \_\_\_\_\_  
MANUFACTURER: \_\_\_\_\_

EMISSION CREDITS - EXHAUST					
		Handheld (HH)	Nonhandheld (NHH)		HH Engine Used in NHH Equip
			Class I	Class II	
<b>Credit Balances before Averaging:</b>					Messages
Current MY	Total Standard Phase 3 Credits - POSITIVE	0	0	0	0
	Total Standard Phase 3 Credits - NEGATIVE	0	0	0	0
	Early Phase 3 Transitional Credits		0	0	
	Early Phase 3 Enduring Credits		0	0	
Banked	Total Standard Phase 3 Credits				
	Phase 2 (Part 90) Banked Credits				
	Early Phase 3 Transitional Credits				
	Early Phase 3 Enduring Credits				
Traded	Total Standard Phase 3 Credits				
	Phase 2 (Part 90) Traded Credits				
	Early Phase 3 Transitional Credits				
	Early Phase 3 Enduring Credits				
<b>Phase 2 and Transitional Phase 3 Credits Applied to NEGATIVE Current MY Balances (Standard Phase 3):</b>					
Banked	Apply Class I Phase 3 Transitional (2012-2014 only)				
	Apply Class II Phase 3 Transitional (2011-2013 only)				
	Apply Phase 2, Class I NHH (Part 90) Banked Credits <sup>2,3</sup>				
	Apply Phase 2, Class II NHH (Part 90) Banked Credits <sup>2,3</sup>				
Traded	Apply Class I Phase 3 Transitional (2012-2014 only)				
	Apply Class II Phase 3 Transitional (2011-2013 only)				
	Apply Phase 2, Class I NHH (Part 90) Traded Credits <sup>2,3</sup>				
	Apply Phase 2, Class II NHH (Part 90) Traded Credits <sup>2,3</sup>				
<b>Remaining NEGATIVE Credit Balance:</b>		0	0	0	0
<b>Credits Applied to Current MY Balance for Standard Phase 3 Credits:</b>					
Current MY	Apply Standard Class I Phase 3 Credits				
	Apply Standard Class II Phase 3 Credits				
	Apply Standard "HH Engine Used in NHH Equip" Phase 3 Credits				
Banked	Apply Standard Handheld Phase 3 Credits				
	Apply Standard Class I Phase 3 Credits				
	Apply Standard Class II Phase 3 Credits				
	Apply Standard "HH Engine Used in NHH Equip" Phase 3 Credits				
Traded	Apply Class I Phase 3 Enduring <sup>1</sup>				
	Apply Class II Phase 3 Enduring <sup>1</sup>				
	Apply Standard Handheld Phase 3 Credits				
	Apply Standard Class I Phase 3 Credits				
<b>Credit Balances after Averaging:</b>		0	0	0	0
<b>TOTALS</b>	Standard Phase 3 Credits	0	0	0	0
	Phase 3 Standard Banked/Traded Credits	0	0	0	0
	Phase 3 Transitional Credits		0	0	
	Phase 3 Enduring Credits		0	0	
<b>Phase 2 (Part 90) Banked/Traded Credits</b>		0	0	0	

1. Enduring credits for Class I engines may not be used for Class II engines in Model Years 2011 or 2012. Enduring credits for Class II engines may not be used for Class I engines in Model Year 2012. (see: 40 CFR §1054.740(d))  
 2. Phase 2 credits may be used for Phase 3 compliance in model years 2012 and 2013 for Class I and 2011 through 2013 for Class II only if all Transitional credits have been used. Use the provisions of 40 CFR §1054.740(c) to determine a maximum number of Phase 2 emission credits for demonstrating compliance with the Phase 3 standards for a given engine class (Class I or Class II).  
 3. Phase 2 and Phase 3 credits from Nonhandheld engines may be used to demonstrate compliance with the Phase 3 standards for handheld engines, subject to the restrictions under 40 CFR §1054.740(e).

EMISSION CREDITS - EVAP				
		Handheld (HH)	Nonhandheld (NHH)	Cold Weather Fuel Lines
<b>Credit Balances before Averaging:</b>				Messages
Current MY	Standard Phase 3 Credits	0	0	0
	Early Phase 3 Credits	0	0	
Banked	Standard Phase 3 Credits			
	Early Phase 3 Credits			
Traded	Standard Phase 3 Credits			
	Early Phase 3 Credits			
<b>Credits Applied to Current MY Balance for Standard Phase 3 Credits:</b>				
Banked	Apply Standard Phase 3 Credits			
	Apply Early Phase 3 Credits			
Traded	Apply Standard Phase 3 Credits			
	Apply Early Phase 3 Credits			
<b>Credit Balances after Averaging:</b>				
<b>TOTALS</b>	Standard Phase 3 Credits	0	0	0
	Phase 3 Banked/Traded Credits	0	0	
	Phase 3 Early Credits	0	0	

Paperwork Reduction Act Notice

OMB No. 2060-0338  
Approval Expires on  
8/31/2012  
EPA Form 5900-131

The public reporting and recordkeeping burden for this collection of information is estimated to average 26 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 in any correspondence. Do not send the completed form to this address.

