

## Attachment 2 ENGINE FAMILY CERTIFICATION CREDITS FILE

Sequence	Data Name	Type	Maximum Length	Range or Domain	Description
1	MODELYR	N	4	Example: 2000	Model Year of engine family
2	MFR	C	4	Example: WXYZ Four letter code name for manufacturer	4 digit manufacturer ID code listed in Attachment 8
3	ENGFAM	C	14	Example: YXYZS.072ABC	Engine family name used for certification
4	ENGCLASS	C	1	A : 0 to 80cc Inclusive B : >80cc to <225cc C : >=225cc	Spark-ignition engine class/displacement as designated in the standards table
5	PROJ_SALES	N	10	Example: 200	Projected model year sales for the engine family as defined in the certification package
6	ACT_SALES	N	10	Example: 100	Actual model year sales for the engine family as defined in Section 2401
7	HCNOXSTD	N	2.1	Example: 12.0	Applicable HCNOx standard in g/kW-hr as determined in Section 2403
8	HCNOXFEL	N	2.1	Example: 11.0	Family emission level for HC+NOx emissions for the engine family (g/kW-hr)
9	PMSTD	N	1.1	Example: 1.5	Applicable PM standard in gm/kW-hour as determined in Section 2403 (g/kW-hr)
10	PMFEL	N	2.1	Example: 1.0	Family emission level for Particulate Matter for the engine family (g/kW-hr)
11	POWER	N	2.2	Example: 10.35	The sales weighted maximum modal power, in kW
12	EDP	N	4	Example: 200	Period representing engine's useful life for which the engine family was certified (hours)
13	LOAD_FACTOR	N	1.2	Example: 0.85	Load factor value
14	HCNOX_CREDIT	N	15	Example: 100	Calculated Engine Family HC+NOx certification credit/debit (grams)
15	PM_CREDIT	N	15	Example: 100	Calculated Engine family Particulate Matter certification credit/debit (grams)
16	NOTES	C	50	Example: Reset FEL	Comments

### Attachment 3 CERTIFICATION CREDITS SUMMARY FILE

<i>Sequence</i>	<i>Data Name</i>	<i>Type</i>	<i>Maximum Length</i>	<i>Range or Domain</i>	<i>Description</i>
1	MODELYR	N	4	Example: 2000	Model Year of engine family
2	MFR	C	4	Example: WXYZ	4 letter manufacturer ID code listed in Attachment 8
3	HCNOX_ENG<80CC	N	15	Example: 100	HCNOX credit/debit for eng. class 80cc or smaller EFs for model year (grams)
4	HCNOX_ENG>80CC	N	15	Example: 100	HCNOX credit/debit for eng. class > than 80cc to < than 225cc EFs for model year (grams)
5	HCNOX_ENG>225CC	N	15	Example: 100	HCNOX credit/debit for eng. class>=225cc EFs for model year
6	PM_ENG<80CC	N	15	Example: 100	Particulate Matter credit/debit for eng. class 80cc or smaller EFs for model year (grams)
7	PM_ENG>80CC	N	15	Example: 100	Particulate Matter credit/debit for eng. class > than 80cc to < than 225cc EFs for model year (grams)
8	PM_ENG>225CC	N	15	Example: 100	Particulate Matter credit/debit for eng. class >=225cc EFs for model year
9	HCNOX_MY	N	15	Example: 100	Total model year manufacturer HC+NOx credits/debits for all 3 engine classes
10	PM_MY	N	15	Example: 100	Total model year manufacturer PM credits/debits for all 3 engine classes (grams)
11	HCNOX_PREV	N	15	Example: 500	Manufacturer's banked HC+NOx certification credits (grams) from previous Model Year
12	PM_PREV	N	15	Example: 500	Manufacturer's banked particulate matter certification credits (grams) from previous Model Year
13	HCNOX_TR	N	15	Example: 100	HC+NOx credits (grams) sold through trading
14	PM_TR	N	15	Example: 100	Particulate matter credits (grams) sold through trading
15	HCNOX_ACQ	N	15	Example: 100	HC+NOx credits (grams) acquired through trading
16	PM_ACQ	N	15	Example: 100	Particulate matter credits (grams) acquired through trading
17	HCNOX_PROD	N	15	Example: 100	Production HC+NOx credits added to cert. credits after depreciating by 10%
18	PM_PROD	N	15	Example: 100	Production PM credits added to cert. credits after depreciating by 10%
19	HCNOX_BAL	N	15	Example: 1000	Total HC+NOx certification credit balance (grams) for this & previous years
20	PM_BAL	N	15	Example: 1000	Total particulate matter certification credit balance (grams) for this & previous years
21	RPT_TYPE	C	5	Example: E-O-Y Range "E-O-Y" or "FINAL"	End-of-year reports are due 90 days after end of production and final reports are due within 270 days
22	COMMENTS	C	75	Example: Revised FEL	Information regarding model year credit/debits and overall compliance. List manufacturers involved in trading.

## Attachment 5 ENGINE FAMILY PRODUCTION CREDITS FILE

<i>Sequence</i>	<i>Data Name</i>	<i>Type</i>	<i>Maximum Length</i>	<i>Range or Domain</i>	<i>Description</i>
1	MODELYR	N	4	Example: 2000	Model Year of engine family
2	MFR	C	4	Example: WXYZ	4 digit manufacturer ID code listed in Attachment 8
3	ENGFAM	C	14	Example: YXYZS.072ABC	Engine family name used for certification
4	ENGCLASS	C	1	A : 0 to 80cc Inclusive B : >80cc to <225cc C : >=225cc	Spark-ignition engine class/displacement as designated in the standards table
5	SAMPLOPT	C	3	CSM= Cumulative Sum Method 1PT= 1 percent or reduced 1 percent Method	Specify if the manufacturer is using the Cumulative Sum method or the 1 percent method for the engine family
6	SAMPSIZE	N	5	Example: 30	Specify the total number of engines tested for the engine family in the model year
7	HCNOXFEL	N	3.1	Example: 10.1	Applicable HC+NOx FEL or standard for engine family (g/kW-hr)
8	HCNOX_CL	N	2.1	Example: 9.1	HC+NOX average production line testing deteriorated emission compliance level (g/kW-hr)
9	PMFEL	N	2.1	Example: 1.6	Applicable Particulate Matter FEL or standard for engine family (g/kW-hr)
10	PM_CL	N	2.1	Example: 9.1	PM average production line testing deteriorated emission compliance level (g/kW-hr)
11	ACT_SALES	N	7	Example: 100	Actual model year sales volume for the engine family as defined by Section 2401
12	POWER	N	2.2	Example: 10.35	The sales weighted maximum modal power, in kW
13	EDP	N	5	Example: 100	Period representing engine's useful life for which the engine family was certified (hours)
14	LOAD_FACTOR	N	1.2	Example: 0.85	Load factor value
15	HCNOX_CRDTS	N	15	Example: 100	HC+NOX production credits (grams) this model year
16	PM_CRDTS	N	15	Example: 100	PM production credits (grams) this model year
17	NOTES	C	50	Example: 2 stroke engine	Comments

## Attachment 6 PRODUCTION CREDITS SUMMARY FILE

Sequence	Data Name	Type	Maximum Length	Range or Domain	Description
1	MODELYR	N	4	Example: 2000	Model year of engine family
2	MFR	C	4	Example: WXYZ Four letter code name for manufacturer	4 digit manufacturer ID code listed in Attachment 8
3	HCNOX_PREV_BAL	N	15	Example: 100	Previous years HC+NOx credit balance (grams)
4	HCNOX_MY_CRDTS	N	15	Example: 100	HC+NOx positive production credits earned this model year (grams) from participating EFs
5	HCNOX_ACQ	N	15	Example: 100	HC+NOx credits acquired from another company (grams) this MY
6	HCNOX_CERT	N	15	Example: 100	HC+NOx credits moved to certification this MY (grams)
7	HCNOX_TRAD	N	15	Example: 100	HC+NOx credits traded to another company (grams) this MY
8	HCNOX_BAL	N	15	Example: 100	Year end HC+NOx balance (grams). This combines the previous year's credits with this model year's banked & acquired credits
9	PM_PREV_BAL	N	15	Example: 100	Previous years PM balance (grams)
10	PM_MY_CRDTS	N	15	Example: 100	PM positive production credits earned this model year (grams) from participating EFs
11	PM_ACQ	N	15	Example: 100	PM credits acquired from another company this MY (grams)
12	PM_CERT	N	15	Example: 100	PM credits moved to certification this MY (grams)
13	PM_TRAD	N	15	Example: 100	PM credits traded to another company this MY (grams)
14	PM_BAL	N	15	Example: 100	Year end PM balance (grams). This combines the previous year's credits with this model year's banked & acquired credits
15	RPT_TYPE	C	5	Example: E-O-Y Range "E-O-Y" or "FINAL"	End-of-year reports are due 90 days after end of production and final reports are due within 270 days
16	COMMENTS	C	75	Example: Credits traded to ABCX manufacturer	Information regarding model year credit/debits and overall compliance

**Attachment 8  
Manufacturer Identification Codes**

<b>Manufacturer</b>	<b>Quality-Audit Code</b>
A. L. Cook Co.	COOK
Algas Carburetion	ALGS
Alto U.S.	ALTO
Andreas Stihl	STIH
Briggs & Stratton Corporation	BRST
Chongqing Lifan Industry Group Co., Ltd.	CHQL
Daihatsu Motors Co., Ltd.	DAIH
Flex Systems, Inc.	FLEX
Ford Power Products	FORD
Fuji Heavy Industries Ltd.	FUJI
Fuji Robin Industries Ltd.	FURO
Generac Corp.	GENA
Honda Motor Co., Ltd.	HOND
Husqvarna AB	HSQA
Husqvarna Outdoor Products Inc.	HOPI
Husqvarna Zenoah Co.	KMTS
Impco Technologies	IMPC
Ishikawajima-Shibaura Machinery Co., Ltd.	ISMC
Isuzu Motors Ltd.	ISUZ
Jiangsu Changfa Group	JACG
John Deere Consumer Equipment/Homelite	HMLT
Kawasaki Heavy Industries, Ltd.	KAWA
Kioritz Corporation (Echo Incorporated)	KIOR
Klockner-Humbolt-Deutz AG	KLOC
Kohler Company	KOLR
Kohler Generator Division	KOLG
Komatsu Zenoah Company	KZC
Krug Products Company	KRUG
Kubota Corp.	KUBO
Lawn-Boy	LABO
Lister-Petter, Inc.	LIPE
Lombardini U.S.A. Inc.	LOMB
Makita U.S.A., Inc.	MKIT
Maruyama Manufacturing Company, Inc.	MARU
Mayville, Inc.	MAY
McCulloch Corp.	MCUL
Mitsubishi Heavy Industries	MITH
Mitsubishi Motors Corporation	MITS
Motorenfabrik HATZ GMBH & Co. KG	MOTO
Nikko Tanaka Engineering Co., Ltd.	NTEC
Onan Corporation (Cummin Power Generation)	ONAN
OPC/Floor Blazers	OPCF
Pioneer Eclipse	PION
Polaris Industries	POLA
Poulan/Weed Eater	PLWE
Power Buff, Inc.	POWE
Ryobi Outdoor Products Inc.	RYOB
Shindaiwa Inc.	SHIN
Solo Inc.	SOLO
Spectrum Industrial Products	SPEC
Suzuki Motor Co.	SUZU
Swiss Clean, Inc.	SWIS
Tanaka Kogyo Co., Ltd.	TNAK
Tecumseh Power Company	TECU
The Toro Company	TORO
Westerbeke Corporation	WEST
Wis-Con Total Power Corp.	WSCO
Yamaha Motor Co., Ltd.	YAMA
Yanmar Diesel Engine Co., Ltd.	YNMA

**Attachment 9**

**Certificate of Transfer  
For Small Off-Road Engine (SORE)  
Emissions Credits**

This document certifies that pursuant to California Code of Regulations, Title 13, Sections 2408(i)(1), 2409(h)(1), an agreement executed between Company A ("A") and Company B ("B") contained the following terms of transfer:

***On mm/dd/yyyy, A transferred xxx grams of [designate whether HC+NOx or PM] credits to B. Designate whether these credits were generated under the Certification Credit Program (Section 2408) or under the Production-Line Testing Program (Section 2409).***

Signed and dated:

\_\_\_\_\_  
Name  
Title  
Address  
Phone #  
For Company A

\_\_\_\_\_  
Name  
Title  
Address  
Phone #  
For Company B

This certificate of transfer document may be used to fulfill the requirements of contract submittal to ARB as part of the end-of-year and final reporting per California Code of Regulations, Title 13, Section 2408(i)(1) and Section 2409(g).