UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NATIONAL VEHICLE AND FUEL EMISSIONS LABORATORY
2565 PLYMOUTH ROAD
ANN ARBOR, MICHIGAN 48105

OFFICE OF
AIR AND RADIATION

December 3, 1996 CD-96-12 (MC)

Dear Manufacturer:

SUBJECT: EPA Standardized Motorcycle Engine Family and Evaporative Family Names for the 1998 and later Model Years

EPA is making a change to the engine and evaporative family naming procedures to be effective with the 1998 model year. The new family naming convention is standard for all vehicles including motorcycles. This change is coincident with the introduction of a new computer database system for light duty vehicles and trucks. The computer database system for motorcycles is not affected at this time. The family names remain as a 12 character identifier.

The attached document is a description of the new naming standard. Attention is directed to the following changes. Manufacturers with previously assigned two letter codes should add a X to their code to complete the new three character code set (e.g., HDX). Engine displacement is a four character code set. One of the four characters must be decimal point for displacements expressed in liters (e.g., .072, 1.12). The manufacturer may choose a combination of any three valid characters in the positions 10-12 to represent a unique identification for their family name. (The letters I and O are not valid characters.)

If you have any questions about these changes please contact your certification team representative.

Sincerely,

Jane Armstrong, Director
Vehicle Programs & Compliance Division
Office of Mobile Sources

Enclosure

C:\#JOHNSON\MTRCYCLE\98EFNAME.WPD

EPA Standardized Engine and Evaporative Family Names for 1998 and Later Model Year Light-Duty Vehicles, Trucks, Motorcycles and Nonroad Engines

The following document is a final document prepared for distribution. It has been peer reviewed and EPA has made a decision to adopt this design.

Manufacturers must use a standardized system for identifying their individual engine families. The system described below was developed by EPA in 1995 to meet new regulatory requirements for 1998 and later model years.

The engine family name consists of 12 characters. For the displacement field, zero is used as a space character in the leading position when a value does not apply. To avoid confusion with numeric characters '0' and '1', characters 'I' and 'O' are not used. It is considered desirable to minimize use of characters 'Q', 'L', 'Z', 'S' 'G', which can be confused with '0', '1', '2', '5', and '6'; however, this has not always been possible. The following method is to be used to name engine families when data is submitted. The format of the standardized engine family name is:

Family information for all families

Number Characters	Columns	Description
1	1	Model Year (Table 1)
3	2-4	Letter code identifying manufacturer (Table 2)
1	5	Family type

- N - Nonstandard family type
- V - Light-duty vehicle family
- T - Light-duty truck family
- C - Motorcycle family
- E - Evaporative family
- H - Heavy-duty engine family
- S - Small nonroad family
- L - Large nonroad family
- M - Marine engine family
- A - California only medium duty family
- R - Evaporative/Refueling family

Light-duty vehicles, trucks and motorcycles

Number Characters	Columns	Description
4	6-9	Displacement in liters (e.g. 05.7-the decimal point counts as a digit and the leading zero is a space) or cubic inches (e.g., 0350, 0097). For dual or variable displacement families enter the maximum displacement. For large displacement engines, the displacement may be entered as XX.X format (e.g., 12.1). Small engines may be entered as a .XXX format (e.g., .072, 0.07, 00.7). In all cases the displacement will be read in liters if a decimal point is entered and it will be read in cubic inches if there is no decimal point.
3	10-12	Sequence characters. Enter any combination of valid characters to provide a unique identification for the family name. It is recommended that numbers and letters be selected that minimize possible confusion.[1]

TABLE 1. LETTER CODES FOR MODEL YEAR (Column 1)

Code	Year	Code	Year	Code	Year
A	1980	L	1990	Y	2000
B	1981	M	1991	1	2001
C	1982	N	1992	2	2002
D	1983	P	1993	3	2003
E	1984	R	1994	4	2004
F	1985	S	1995	5	2005
G	1986	T	1996	6	2006
H	1987	V	1997	7	2007
J	1988	W	1998	8	2008
K	1989	X	1999	9	2009

TABLE 2. LETTER CODES FOR MANUFACTURERS (Columns 2-4)

Until 1991, independent letter codes were assigned for light-duty and heavy-duty manufacturers. In several instances different codes were either used for a single manufacturer that sold both light and heavy-

[1]At a minimum, the sequence characters, in combination with the other characters in the family name, must provide a unique identifier for the family. It is recommended, but not required, that the sequence characters themselves be unique for all families for a manufacturer and model year. These sequence characters may be used to codify information to meet California's requirements, but they will be treated as simple sequence characters by EPA's computer software.

duty vehicles and engines or the same letter code was used for different light and heavy-duty manufacturers. This did not cause a significant problem for EPA because completely independent computer systems were used for light-duty and heavy-duty/motorcycle; however, this may have caused difficulty for non-EPA users.

In 1991, EPA combined the letter codes for light-duty and heavy-duty manufacturers and added letter codes for independent commercial testing laboratories (needed to allow EPA to identify the source of test data) and utility engine manufacturers. The combined codes went into effect for 1994 and later model years. Whenever a letter code was used by more than one manufacturer and both manufacturers were expected to certify vehicles and engines for 1994 and later model years, it was necessary to assign a new letter code to one of the manufacturers. For this reason, several manufacturers have different letter codes for model years before and after 1994. In 1993 EPA began to define letter codes for marine engine manufacturers and government laboratories. Utility engine manufacturers were split into two categories: large off road engines and small off road engines. Manufacturers identified previously as utility engine manufacturers are still identified as utility engine manufacturers in this document; however, EPA will eventually respecify these manufacturers as large off road or small off road engine manufacturers.

Table 2 provides a list of Vehicle Information manufacturer codes and engine/evaporative family letter codes for manufacturers and laboratories that are currently certifying or testing vehicles, engines, and motorcycles. The table identifies the type of product or service provided by each organization:

Engine/Evaporative Family Manufacturer Subcodes and Vehicle Information Manufacturer Codes

LD	-	Light-duty vehicles	UE	-	Utility engines
HD	-	Heavy-duty vehicles/engines	SN	-	Small nonroad engines
MC	-	Motorcycles	LN	-	Large nonroad engines
IL	-	Independent testing lab.	GL	-	Government laboratory
ME	-	Marine engines			

V.I. MFR Code	Product	Manufacturer or laboratory	Manufacturer/lab Subcodes <1994	1994-1997	≥1998
10	LD	CHRYSLER (AMC)	AM	same	AMX
20	LD	CHRYSLER	CR	same	CRX
	HD	CHRYSLER	CC[2]	CR	CRX
30	LD	FORD	FM	same	FMX
	HD	FORD	FM	same	FMX
40		GENERAL MOTORS	GC	GC,GM[3]	GCX
	LD	CPC (Chevrolet, Pontiac)	1G	1G.GM	GMX
	LD	BUICK-OLDSMOBILE-CADILLAC	2G	2G,GM	GMX
	HD	TRUCK & BUS	3G	3G,GM	GMX
	LD	SATURN	4G	4G,GM	GMX
	HD	GENERAL MOTORS	GM	GM	GMX
52	LD,UE,HD,SN,MC,LN,IL,GL,ME	TASMANIA MOTOR WORKS[4]	TW	same	TWX
55	HD	DETROIT DIESEL	DD	same	DDX
60	LD	AC CARS LIMITED	ZZ	same	ZZX
67	LD	AMERICAN LIMOUSINE MFR. INC	Z6	same	Z6X
68	LD	AMERICAN MUSCEL LTD	A4	same	A4X
69	HD	AMERICAN TECHNOLOGY GROUP	A9	same	A9X
70	LD	ASTON MARTIN	AS	same	ASX
90	LD	FIAT AUTO S.P.A.	AR	same	ARX
95	HD	AM GENERAL	AZ	same	AZX
98	LD	AURORA CARS	AA	same	AAX
101	LD	AUTOKRAFT LIMITED	AK	same	AKX
103	LD	ASC INC.	A3	same	A3X
106	LD	ALLCO EURO MOTORS	A6	same	A6X
108	LD	ROVER GROUP LTD. (AR)	AW	same	AWX

[2]Also used by obsolete light-duty manufacturer CCC Engineering, manufacturer 139, for model years before 1994.

[3]The 1994 Application Format Data Supplement stated that code 'GC' would be used for 1994 and later model years; however, this code was never actually used--the division codes were used instead for 1994 and 1995. For 1996 and later, code 'GM' is used exclusively by General Motors for all engine and evaporative families.

[4]Manufacturer Tasmania Motor Works was defined to provide a manufacturer code that can be used to test EPA computer systems. It is identified here because the codes used by Tasmania Motor Works are now reserved and because users of EPA computer systems may encounter references to this manufacturer.

V.I. MFR Code	Product	Manufacturer or laboratory	Manufacturer/lab Subcodes <1994	1994-1997	≥1998
112	HD	BLUE BIRD BODY	BB	same	BBX
118	MC	BAJAJ AUTO LIMITED	BJ	same	BJX
119	MC	BUELL MOTORCYCLE	BL	same	BLX
120	LD	BMW	BM	same	BMX
	MC	BMW AG	BM	same	BMX
123	MC	BIMOTA S.P.A.	Z8	same	Z8X
126	LD	BONAIR USA	B3	same	B3X
133	LN	BAKER EQUIPMENT ENGINEERING CO.	X3	same	X3X
134	LD	BUGATTI AUTOMOBILI SPA	BA	same	BAX
141	LD	CHAMPAGNE IMPORTS INC.	Z5	same	Z5X
143	LD	CALLAWAY	C6	same	C6X
144	MC	CAGIVA NORTH AMERICA	CG	same	CGX
146	LD	CHICAGO ARMOR&LIMOUSINE MFR CORP	Z7	same	Z7X
147	LD	CCE, INC	C7	same	C7X
150	LD	CITROEN	CT[5]	same	CTX
156	MC	CLASSIC MOTORCYCLES LIMITED	CM	same	CMX
157	MC	CLIFFORD GUN TRADERS & SUPPLIES	CL	same	CLX
162	LD	CONSULIER INDUSTRIES INC.	C3	same	C3X
163	LD	COLLINS PROFESSIONAL CARS. INC.	Y4	same	Y4X
168	MC	CUSHMAN	CU	CH	CUX
169	LD	CX AUTOMOTIVE	CX	same	CXX
175	LD	DACIA (ARO)	DA	same	DAX
178	LD	DAEWOO	DW	same	DWX
180	HD	DAF	DT[6]	DF	DTX
185	LD	DABRYAN COACH BUILDERS INC.	Y2	same	Y2X
190	LD	DAIHATSU MOTOR COMPANY LTD.	DH	same	DHX
196	LD	MITSUBISHI MOTOR MANUF OF AMERICA	DS	same	DSX
197	LD	DUTCHER MOTORS INC	DT[7]	same	DTX
200	LD	MERCEDES BENZ	MB	same	MBX
	HD	MERCEDES-BENZ AKTIENGELLSCHAFT	MB	same	MBX
201	LD	EMPIRE COACH	E6	same	E6X
204	LD,HD	US ELECTRICAR	EL	same	ELX
206	LD	DNIEPER U.S.A.	DP	same	DPX
207	LD	EXECUTIVE COACH BUILDERS	Y3	same	Y3X
208	LD	ECS/ROUSH	E5	same	E5X
212	LD	EUROPEAN AUTO WERKS, INC.	E2	same	E2X
220	LD	FERRARI	FE	same	FEX
222	LD	EVANS AUTOMOBILES	E1	same	E1X
227	LD	FEDERAL COACH	F2	same	F2X
230	LD	FIAT	FT[8]	same	FTX
241	HD	FREIGHTLINER	FR	same	FRX
242	LD	GREEN WHEELS ELECTRIC	G4	same	G4X

[5]Also used by heavy-duty manufacturer Caterpiller, manufacturer 730, for model years before 1994.

[6]Also used by light-duty manufacturer Dutcher Motors Inc, manufacturer 197, for all years.

[7]Also used by heavy-duty manufacturer DAF, manufacturer 180, for model years before 1994.

[8]Also used by heavy-duty manufacturer Oshkosh Truck, manufacturer 767, for model years before 1994.

V.I. MFR Code	Product	Manufacturer or laboratory	Manufacturer/lab Subcodes <1994	1994-1997	≥1998
243	MC	ALEX GREENSPAN T/A FIN	GA	same	GAX
244	LD	GREENWOOD AUTOMOTIVE PERFORMANCE	GW	same	GWX
246	LD	GRUMMAN ALLIED INDUSTRIES	GR	same	GRX
250	HD	HINO MOTORS	HM	same	HMX
251	LD	G & K AUTOMOTIVE CONVERSION INC	G1	same	G1X
253	LD	VECTOR AEROMOTIVE CORPORATION	G2	same	G2X
254	LD	GOLDACRE LTD.	G3	same	G3X
255	MC	HARLEY DAVIDSON	HD	same	HDX
258	SN	HATZ GMBH & CO KG	HZ	same	HZX
260	LD	HONDA	HN	same	HNX
	MC	HONDA	HN	same	HNX
	UE	HONDA	HN	same	HNX
265	LD	HYUNDAI	HY	same	HYX
266	LD	ICI-INTERNATIONAL	X1	same	X1X
271	LD	IMPCO	Z9	same	Z9X
272	LD	IMPORT TRADE SERVICES	T1	same	T1X
285	LD	ISIS IMPORTS LTD	Z3	same	Z3X
290	LD	ISUZU	SZ	same	SZX
	HD	ISUZU MOTORS	SZ	same	SZX
305	LD	JAGUAR CARS INC	JR	(WAS JC) JC	JCX
308	LD	JBA MOTORCARS INC	J1	same	J1X
314	LD	J.K. MOTORS	J3	same	J3X
329	LD	KINGS ENVIRONMENTAL HYDROGEN SYS	K4	same	K4X
331	MC	KAVULICH INTERNATIONAL	MN[9]	M5	MNX
332	LD	KRYSTAL COACH INC.	KK	same	KKX
333	MC	KTM MOTOR	KT	same	KTX
335	MC	KAWASAKI	KA	same	KAX
338	LD	KIA MOTORS CORPORATION	KM	same	KMX
339	LD	KSK DISTRIBUTING	K2	same	K2X
344	LD	LIMOUSINE WERKS	L6	same	L6X
347	LD	LIPHARDT & ASSOCIATES INC	LP	same	LPX
350	LD	LOTUS	LT	same	LTX
352	LD	LAREDO COACHWORKS, INC	L7	same	L7X
355	HD	STEELBRO MANUFACTURING, LTD	SB	same	SBX
357	SN	MAKITA USA INC	M6	same	M6X
358	MC	MATCHLESS MOTOR CYCLES	MA[10]	M2	M2X
360	LD	MASERATI	MA[11]	same	MAX
366	MC	MILLER SPECIALTIES	MS	same	MSX
369	MC	MOTO AMERICA	MG	same	MGX
371	MC	MUZ, MOTORRAD UND ZWEIRADWERK	MZ	same	MZX
373	LD	NORTH AMERICAL MVS	N3	same	N3X
374	MC	NATIVE AMERICAN MOTORCYCLE CO.	N6	same	N6X
376	LD	NEOAX	NX	same	NXX
378	MC	NEVAL MOTORCYCLES	NL[12]	NY	NYX

[9]Also used by heavy-duty manufacturer MAN NutzPahrzeuge, manufacturer 762, for all years.

[10]Also used by light-duty manufacturer Maserati, manufacturer 360, for all years.

[11]Also used by motorcycle manufacturer Matchless Motor Cycles, manufacturer 358, for model years before 1994.

[12]Also used by light-duty manufacturer Lamborghini, manufacturer 691, for all years.

V.I. MFR Code	Product	Manufacturer or laboratory	Manufacturer/lab Subcodes <1994	1994-1997	≥1998
380	LD	NISSAN	NS	same	NSX
381	HD	NISSAN DIESEL MOTOR CO.	ND	same	NDX
394	MC	OMC LINCOLN	MC	same	MCX
404	LD	PRODUCTION AUTOMOTIVE SYSTEMS	P5	same	P5X
407	LD	PANOZ AUTO-DEVELOPMENT CORP	P3	same	P3X
410	LD	PEUGEOT	PE[13]	same	PEX
416	LD	PIERRE ENTERPRISES SOUTHEAST, INC	P5	same	P5X
420	LD	PORSCHE	PR	same	PRX
426	LD	PYRAMID COACHBUILDERS	P4	same	P4X
430	LD	RENAULT	RE	same	REX
431	LD	PAS INC.	P2	same	F2X
432	LD	RENNTECH INC.	R2	same	R2X
433	HD	RENAULT VEHICULES INDUSTRIELS	R3	same	R3X
439	LD	RAYTON-FISSORE NORTH AMERICA	R1	same	R1X
440	LD	ROLLS-ROYCE MOTORCARS LTD.	RR	same	RRX
453	MC	ROSCETTI	RC[14]	same	RCX
454	LD	RUF AUTOMOBILE GMBH	RA	same	RAX
457	LD	ROYALE LIMOUSINE MANUFACTURERS	RL	same	RLX
460	LD	ROVER GROUP LTD.	LR	same	LRX
470	LD	SAAB	SA	same	SAX
	HD	SAAB SCANIA	SS[15]	SA	SAX
471	LD	SAAC CAR COMPANY INC.	S6	same	S6X
472	LD	SALEEN AUTOSPORT	S3	same	S3X
473	LD	SALEEN PERFORMANCE PARTS, INC.	S8	same	S8X
475	LD	SEGUELS SERVICE INC	S2	same	S2X
481	LD	SHELBY AUTOMOBILES INC	SY	same	SYX
487	LD	SLP ENGINEERING	S5	same	S5X
490	LD	MITSUBISHI	MT[16]	same	MTX
	HD	MITSUBISHI	MM[17]	MT	MMX
491	LD	MITSUBISHI MOTOR SALES AMERICA	M3	same	M3X
492	LD	MITSUBISHI MOTORS AUSTRALIA LTD	ML	same	MLX
515	LD	SUPERIOR OF OHIO INC	V1	same	V1X
520	LD	EXCALIBUR AUTOMOBILE	EX	same	EXX
526	LD	TDM TECHNOLOGIES,INC.	T4	same	T4X
527	LD	THOMAS PUGH AND LINDA MCKNIGHT	T3	same	T3X
529	HD	TRANSI-CORP	T5	same	T5X
530	MC	TRIUMPH DESIGNS LTD	TD	same	TDX
534	LD	SPORTS CAR AMERICA PUMA DIVISION	Z4	same	Z4X
540	LD	SUZUKI MOTOR CORPORATION	SK	same	SKX

[13]Also used for heavy-duty manufacturer Perkins Engine Company, manufacturer 770, for model years before 1994.

[14]Also used by obsolete light-duty manufactuer Replicar, manufacturer 435, for model years before 1994.

[15]Also used by obsolete light-duty manufacturer Sun Country Imports, manufacturer 541, for model years before 1994.

[16]Also used by heavy-duty manufacturer Mack Truck, manufacturer 760, for model years before 1994.

[17]Also used by obsolete light-duty manufacturer Metric Motors, manufacturer 202, for model years before 1994.

V.I. MFR Code	Product	Manufacturer or laboratory	Manufacturer/lab Subcodes <1994	1994-1997	≥1998
	MC	SUZUKI	SK	same	SKX
560	LD	MAZDA MOTOR CORP.	TK	same	TKX
570	LD	TOYOTA	TY	same	TYX
576	LD	NEW UNITED MOTOR MFG INC	NT	same	NTX
579	LD	UTILIMASTER CORP. OF AMERICA	Z1	same	Z1X
581	MC	URALMOTO JSC	YP	same	YPX
582	LD	UNITED STATES COACHWORKS	Y6	same	Y6X
583	LD	US TRADE CORP.	Z2	same	Z2X
590	LD	VOLKSWAGEN	VW	same	VWX
600	LD	VOLVO	VV	same	VVX
603	LD	WALLACE ENVIR.TESTING LAGS. INC	WA	same	WAX
605	HD	VOLVO WHITE TRUCK DIVISION	VT	same	VTX
608	LD	WISCONSIN LIFT TRUCK CORP.	WL	same	WLX
611	MC	WESTWARD INDUSTRIES	WW	same	WWX
614	LD	YUGO AMERICA, INC.	YA[18]	same	YAX
615	MC	YAMAHA	YA[19]	YM	YMX
640	LD	AUDI	AD	same	ADX
645	LD	AMPHI-RANGER OF AMERICA	Y1	same	Y1X
660	LD	FUJI HEAVY IND	FJ	same	FJX
661	SN	FUJI ROBIN INDUSTRIES LTD.	FN	same	FNX
691	LD	LAMBORGHINI	NL[20]	same	NLX
720	HD	WINNEBAGO INDUSTRIALS	WB	same	WBX
728	HD	ASQUITH MOTOR CARRIAGE CO. LTD	A7	same	A7X
730	HD	CATERPILLER	CT[21]	CP	CPX
735	HD	CLARION MOTORS	CA	same	CAX
	MC	CLARION MOTORS	CA	same	CAX
740	HD	CUMMINS	CE	same	CEX
743	HD	DEERE & COMPANY	JD	same	JDX
745	HD	KLOCKNER-HUMBOLT-DEUTZ AG	DZ	same	DZX
747	HD	FLEETWOOD ENTERPRISES	FW	same	FWX
748	HD	GILLIG	GL	same	GLX
750	HD	HERCULES ENGINES	HE	same	HEX
755	HD	IVECO B.V.	VE[22]	same	VEX

[18]Also used by motorcycle manufacturer Yamaha, manufacturer 615, for model years before 1994.

[19]Also used by light-duty manufacturer Yugo America, manufacturer 614, for all years.

[20]Also used by motorcycle manufacturer Neval Motorcycles, manufacturer 378, for model years before 1994.

[21]Also used by light-duty manufacturer Citroen, manufacturer 150, for all years.

[22]Also used by obsolete light-duty manufacturer Village Emission Research Inc, manufacturer 594, model years before 1994.

V.I. MFR Code	Product	Manufacturer or laboratory	Manufacturer/lab Subcodes <1994	1994-1997	≥1998
760	HD	MACK TRUCKS	MT[23]	MK	MKX
762	HD	MAN NUTZPAHRZEUGE	MN[24]	same	MNX
765	HD	NAVISTAR INTERNATIONAL TRANS.	NV	same	NVX
767	HD	OSHKOSH TRUCK	FT[25]	S7	S7X
770	HD	PERKINS ENGINE COMPANY	PE[26]	PK	PKX
775	HD	ROADMASTER	RM	same	RMX
777	LD,UE,HD,SN,MC,LN,IL,GL,ME	JURASSIC PASSENGER CARS[27]	JP	same	JPX
793	HD	TRANSPORTATION MANUFACTURING COR	T6	same	T6X
795	HD	VIRONEX	VX	same	VXX
802	UE	ANDREAS STIHL	A8	same	A8X
805	UE	BRIGGS & STRATTON	BS	same	BSX
815	LN	DAE HUNG	DE	same	DEX
825	UE	KIORITZ	EH	same	EHX
828	UE	GENERAC CORP	GN	same	GNX
835	UE	HOMELITE TEXTRON	H2	same	H2X
838	UE	HUSQVARNA AB	HV	same	HVX
840	UE	INERTIA DYNAMICS CORP.	N4	same	N4X
845	UE	KOHLER COMPANY	KH	same	KHX
847	UE	KOMATSU ZENOAH AMERICA	KZ	same	KZX
848	LN	KOMATSU LTD.	KL	same	KLX
849	UE	KUBOTA	KB	same	KBX
850	UE	LAWN-BOY	L4	same	L4X
852	UE	LISTER PETTER, INC.	L5	same	L5X
854	SN	MARUYAMA U.S. INC	M4	same	M4X
855	UE	MCCULLOCH CORP.	MH	same	MHX
860	UE	NELSON	NE	same	NEX
865	UE	ONAN CORP	N5	same	N5X
867	SN	SOLO INC	S9	same	S9X
868	UE	POULAN/WEED EATER	PW	same	PWX
869	UE	SHINDAIWA INC	SW	same	SWX
870	UE	TECUMSEH PRODUCTS	TP	same	TPX
871	SN	TANAKA KOGYO CO LTD	T7	same	T7X
872	UE	TELEDYNE TOTAL POWER	T2	same	T2X
885	UE	YANMAR DIESEL ENGINE USA	YD	same	YDX
890	UE	WACKER CORP.	W1	same	W1X
893	SN	WIS-CON TOTAL POWER CORP	WP	same	WPX
901	IL	AUTOMOTIVE TESTING LABS, INC.	01	same	01X
902	IL	ECS LABORATORIES INC.	02	same	02X
903	IL	ENVIRONMENTAL TESTING CORP.	03	same	03X

[23]Also used by light-duty manufacturer Mitsubishi, manufacturer 490, for all years.

[24]Also used by motorcycle manufacturer Kavaulich International, manufacturer 331, for model years before 1994.

[25]Also used by light-duty manufacturer Fiat, manufacturer 230, for all years.

[26]Also used by light-duty manufacturer Peugeot, manufacturer 410, for all years.

[27]Manufacturer Jurassic Passenger Cars was defined to provide a manufacturer code that can be used to test EPA computer systems. It is identified here because the codes used by Jurassic Passenger Cars are now reserved and because users of EPA computer systems may encounter references to this manufacturer.

V.I. MFR Code	Product	Manufacturer or laboratory	Manufacturer/lab Subcodes <1994	1994-1997	≥1998
904	IL	LUCAS ENGINE MANAGEMENT SYSTEMS	04	same	04X
905	IL	ENVIRONMENTAL RESEARCH & DEV. CO	05	same	05X
906	IL	NORTHERN CAL.EMISSIONS LAB.	06	same	06X
907	IL	TESTING SERVICES INC.	07	same	07X
908	IL	COMPLIANCE & RESEARCH SERVICES	08	same	08X
909	IL	AUTOMATED CUSTOM SYSTEMS, INC.	09	same	09X
910	IL	CALIFORNIA ENVIRONMANTAL ENG.	10	same	10X
911	IL	EAGLE PITCHER AUTOMOTIVE GROUP	11	same	11X
912	IL	TICKFORD LIMITED	K3	same	K3X
920	GL	COUNTRY OF SWEDEN	SG	same	SGX
980	GL	CALIFORNIA AIR RESOURCES BOARD	80	same	80X
991	GL	EPA CD	91	same	91X
992	GL	EPA EOD	92	same	92X
993	GL	EPA MOD	93	same	93X
994	GL	EPA FOSD	94	same	94X
995	GL	EPA ECTD (obsolete)	95	same	95X
996	GL	EPA RDSD	96	same	96X
997	GL	EPA EPSD	97	same	97X

Evaporative family names

Columns 1-5 are the same as engine family names.

Number Characters	Columns	Description
4	6-9	Canister work capacity: Total grams in all canisters
3	10-12	Sequence characters. Enter any combination of valid characters to provide a unique identification for the family name. It is recommended that numbers and letters be selected that minimize possible confusion.[28]

Other engine and evaporative family descriptive information that would be required to identify emsission standards will be described in a separate document.

[28]At a minimum, the sequence characters, in combination with the other characters in the family name, must provide a unique identifier for the family. It is recommended, but not required, that the sequence characters themselves be unique for all families for a manufacturer and model year. These sequence characters may be used to codify information to meet California's requirements, but they will be treated as simple sequence characters by EPA's computer software..