

applicable requirements. This determination is effective on April 30, 1996. FAA's determination on an airport operator's noise exposure maps is limited to finding that the maps were developed in accordance with the procedures contained in Appendix A of FAR part 150. Such determination does not constitute approval of the applicant's data, information or plans, or a commitment to approve a noise compatibility program or to fund the implementation of that program.

If questions arise concerning the precise relationship of specific properties to the noise exposure maps submitted under section 103 of the Act, it should be noted that the FAA is not involved in any way in determining the relative locations of specific properties with regard to the depicted noise contours, or in interpreting the noise maps to resolve questions concerning, for example, which properties should be covered by the provisions of section 107 of the Act. These functions are inseparable from the ultimate land use control and planning responsibilities of local government. These local responsibilities are not changed in any way under part 150 or through FAA's review of noise exposure maps. Therefore, the responsibility for the detailed overlaying of noise exposure contours onto the map depicting properties on the surface rests exclusively with the airport operator which submitted those maps, or with those public agencies and planning agencies with which consultation is required under section 103 of the Act. The FAA has relied on the certification by the airport operator under § 150.21 of Part 150, that the statutorily required consultation has been accomplished.

The FAA formally received on March 15, 1996, the noise compatibility program for Albany County Airport, also effective April 30, 1996. Preliminary review of the submitted material indicates that it conforms to the requirements for the submittal of noise compatibility programs, but that further review will be necessary prior to the approval or disapproval of the program. The formal review period, limited to law to a maximum of 180 days, will be completed on or before October 28, 1996.

The FAA's detailed evaluation will be conducted under the provisions of 14 CFR 150.33. The primary considerations in the evaluation process are whether the proposed measures may reduce the level of aviation safety, create an undue burden on interstate or foreign commerce, or be reasonably consistent with obtaining the goal of reducing existing non-compatible land uses and

preventing the introduction of additional non-compatible land uses.

Interested persons are invited to comment on the proposed program with specific reference to the factors. All comments, other than those properly addressed to local land use authorities, will be considered by the FAA to the extent practical. The public comment period ends July 1, 1996.

Copies of the noise exposure maps, the FAA's evaluation of the maps, and the proposed noise compatibility program, are available for examination at the following locations:

#### FAA

Eastern Regional Office, Fitzgerald Federal Building, Airports Division, Room 337, JFK International Airport, Jamaica, New York 11430

#### FAA

New York Airports District Office, 600 Old Country Road, Suite 446, Garden City, New York 11530  
Albany County Airport, Airport Director's Office, Albany County Airport Authority, ARFF Building, 2nd Floor, Albany, New York 12211  
Questions may be directed to the individual name above under the heading **FOR FURTHER INFORMATION CONTACT**.

Issued in Jamaica, New York on April 30, 1996

Anthony P. Spera,

*Acting Manager, Airports Division, Eastern Region.*

[FR Doc. 96-11253 Filed 5-3-96; 8:45 am]

BILLING CODE 4910-13-M

#### **Executive Committee of the Aviation Rulemaking Advisory Committee; Meeting**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of meeting.

**SUMMARY:** The FAA is issuing this notice to advise the public of a meeting of the Executive Committee of the Federal Aviation Administration Aviation Rulemaking Advisory Committee.

**DATES:** The meeting will be held on May 15, 1996, at 10 a.m. Arrange for oral presentations by May 10, 1996.

**ADDRESSES:** The meeting will be held at the Regional Airline Association (RAA), 1101 Connecticut Avenue, Suite 700, Washington DC.

**FOR FURTHER INFORMATION CONTACT:** Mr. Manuel Vega, Federal Aviation Administration (ARM-20) 800 Independence Avenue, SW., Washington, DC 20591, telephone (202) 267-5575; fax (202) 267-5075.

**SUPPLEMENTARY INFORMATION:** Pursuant to section 10(a)(2) of the Federal Advisory Committee Act (Pub. L. 92-463; 5 U.S.C. App. II), notice is hereby given of a meeting of the Executive Committee to be held on May 15, 1996, at the Regional Airline Association (RAA), 1101 Connecticut Avenue, Suite 700, Washington, DC, 10 a.m. The agenda will include:

- Digital Information Working Group briefing
- Review of open action items since the last meeting
- Report on status of all outstanding recommendations
- Notable comments on specific issues
- Other business

Attendance is open to the interested public but will be limited to the space available. The public must make arrangements by May 10, 1996, to present oral statements at the meeting. The public may present written statements to the executive committee at any time by providing 25 copies to the Executive Director, or by bringing the copies to him at the meeting. In addition, sign and oral interpretation can be made available at the meeting, as well as an assistive listening device, if requested 10 calendar days before the meeting. Arrangements may be made by contacting the person listed under the heading **FOR FURTHER INFORMATION CONTACT**.

Issued in Washington, DC, on April 30, 1996.

Chris A. Christie,

*Executive Director, Aviation Rulemaking Advisory Committee.*

[FR Doc. 96-11251 Filed 5-3-96; 8:45 am]

BILLING CODE 4910-03-M

#### **National Highway Traffic Safety Administration**

#### **Automotive Fuel Economy Program Report to Congress**

The attached document, *Automotive Fuel Economy Program, Twentieth Annual Report to the Congress*, was prepared pursuant to 49 U.S.C 32916 which requires in pertinent part that "the Secretary shall submit to each House of Congress, and publish in the Federal Register, a review of average fuel economy standards under this part."

Issued on: April 29, 1996.

Barry Felrice,

Associate Administrator for Safety  
Performance Standards.

# Automotive Fuel Economy Program Twentieth Annual Report to Congress

## Calendar Year 1995

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#### Section I: Introduction

The Twentieth Annual Report to  
Congress on the Automotive Fuel

Economy Program summarizes the activities of the National Highway Traffic Safety Administration (NHTSA) during 1995, in accordance with 49 U.S.C. 32916 *et seq.*, which requires the submission of a report each year. Included in this report are sections summarizing rulemaking activities during 1995 and a discussion of the use of advanced automotive technology by the industry as required by Section 305, Title III, of the Department of Energy Act of 1978 (P.L. 95-238).

The Secretary of Transportation is required to administer a program for regulating the fuel economy of new passenger cars and light trucks in the United States market. The authority to administer the program was delegated by the Secretary to the Administrator of NHTSA, 49 C.F.R. 1.50(f).

NHTSA's responsibilities in the fuel economy area include:

(1) Establishing and amending average fuel economy standards for manufacturers of passenger cars and light trucks, as necessary;

(2) Promulgating regulations concerning procedures, definitions, and

reports necessary to support the fuel economy standards;

(3) Considering petitions for exemption from established fuel economy standards by low volume manufacturers (those producing fewer than 10,000 passenger cars annually worldwide) and establishing alternative standards for them;

(4) Preparing reports to Congress annually on the fuel economy program;

(5) Enforcing fuel economy standards and regulations; and

(6) Responding to petitions concerning domestic production by foreign manufacturers, and other matters.

Passenger car fuel economy standards were established by Congress for Model Year (MY) 1985 and thereafter at a level of 27.5 miles per gallon (mpg). NHTSA is authorized to amend the standard above or below that level. Standards for light trucks were established by NHTSA for MYs 1979 through 1997. NHTSA set a combined standard of 20.7 mpg for light truck fuel economy standard for MYs 1996 and 1997. All current standards are listed in Table I-1.

TABLE I-1.—FUEL ECONOMY STANDARDS FOR PASSENGER CARS AND LIGHT TRUCKS MODEL YEARS 1978 THROUGH 1997 [IN MPG]

Model year	Passenger cars	Light Trucks <sup>1</sup>		
		Two-wheel drive	Four-wheel drive	Com- bined <sup>12 3</sup>
1978 .....	<sup>4</sup> 18.0	.....	.....	.....
1979 .....	<sup>4</sup> 19.0	17.2	15.8	.....
1980 .....	<sup>4</sup> 20.0	16.0	14.0	( <sup>5</sup> )
1981 .....	22.0	<sup>6</sup> 16.7	15.0	( <sup>5</sup> )
1982 .....	24.0	18.0	16.0	17.5
1983 .....	26.0	19.5	17.5	19.0
1984 .....	27.0	20.3	18.5	20.0
1985 .....	<sup>4</sup> 27.5	<sup>7</sup> 19.7	<sup>7</sup> 18.9	<sup>7</sup> 19.5
1986 .....	<sup>8</sup> 26.0	20.5	19.5	20.0
1987 .....	<sup>9</sup> 26.0	21.0	19.5	20.5
1988 .....	<sup>9</sup> 26.0	21.0	19.5	20.5
1989 .....	<sup>10</sup> 26.5	21.5	19.0	20.5
1990 .....	<sup>4</sup> 27.5	20.5	19.0	20.0
1991 .....	<sup>4</sup> 27.5	20.7	19.1	20.2
1992 .....	<sup>4</sup> 27.5	.....	.....	20.2
1993 .....	<sup>4</sup> 27.5	.....	.....	20.4
1994 .....	<sup>4</sup> 27.5	.....	.....	20.5
1995 .....	<sup>4</sup> 27.5	.....	.....	20.6
1996 .....	<sup>4</sup> 27.5	.....	.....	20.7
1997 .....	<sup>4</sup> 27.5	.....	.....	20.7

<sup>1</sup> Standards for MY 1979 light trucks were established for vehicles with a gross vehicle weight rating (GVWR) of 6,000 pounds or less. Standards for MY 1980 and beyond are for light trucks with a GVWR of 8,500 pounds or less.

<sup>2</sup> For MY 1979, light truck manufacturers could comply separately with standards for four-wheel drive, general utility vehicles and all other light trucks, or combine their trucks into a single fleet and comply with the 17.2 mpg standard.

<sup>3</sup> For MYs 1982-1991, manufacturers could comply with the two-wheel and four-wheel drive standards or could combine all light trucks and comply with the combined standard.

<sup>4</sup> Established by Congress in Title V of the Act.

<sup>5</sup> A manufacturer whose light truck fleet was powered exclusively by basic engines which were not also used in passenger cars could meet standards of 14 mpg and 14.5 mpg in MYs 1980 and 1981, respectively.

<sup>6</sup> Revised in June 1979 from 18.0 mpg.

<sup>7</sup> Revised in October 1984 from 21.6 mpg for two-wheel drive, 19.0 mpg for four-wheel drive, and 21.0 mpg for combined.

<sup>8</sup> Revised in October 1985 from 27.5 mpg.

<sup>9</sup> Revised in October 1986 from 27.5 mpg.

<sup>10</sup> Revised in September 1988 from 27.5 mpg.

## Section II: Fuel Economy Improvement by Manufacturers

The fuel economy achievements for domestic and foreign-based manufacturers in MY 1994 were updated to include final Environmental Protection Agency (EPA) calculations, where available, since the publication of the *Nineteenth Annual Report to the Congress*. These fuel economy achievements and current projected data for MY 1995 are listed in Tables II-1 and II-2.

Overall fleet fuel economy for passenger cars was 28.5 mpg in MY 1995, an increase of 0.3 mpg from the MY 1994 level. For MY 1995, Corporate Average Fuel Economy (CAFE) values increased above MY 1994 levels for 16 of 22 passenger car manufacturers' fleets. (See Table II-1.) These 16 companies accounted for over 57 percent of the total MY 1995 production. Manufacturers continued to introduce new technologies and more fuel-efficient models, as well as some

larger, less fuel-efficient models. For MY 1995, the overall domestic manufacturers' fleet average fuel economy was 27.7 mpg. For MY 1995, Chrysler, Ford, and Mazda domestic passenger car CAFE values rose 2.4 mpg, 0.1 mpg, and 1.0 mpg, respectively, from their 1994 levels, while General Motors remained at its MY 1994 level. Overall, the domestic manufacturers' combined CAFE increased 0.4 mpg above MY 1994 levels.

TABLE II-1.—PASSENGER CAR FUEL ECONOMY PERFORMANCE BY MANUFACTURER\* MODEL YEARS 1994 AND 1995

Manufacturer	Model year cafe (MPG)	
	1994	1995
Domestic:		
Chrysler .....	26.2	28.6
Ford .....	27.6	27.7
General Motors .....	27.4	27.4
Mazda .....	29.1	30.1
Sales Weighted Average (Domestic) .....	27.3	27.7
Import:		
BMW .....	25.1	25.3
Chrysler Imports .....	31.3	30.4
Fiat .....	19.8	16.0
Ford Imports .....	25.7	33.9
GM Imports .....	24.6	26.2
Honda .....	32.5	31.7
Hyundai .....	32.5	30.7
Kia .....	30.8	31.3
Mazda .....	31.2	31.4
Mercedes-Benz .....	23.7	24.6
Mitsubishi .....	28.9	29.5
Nissan .....	29.7	30.0
Porsche .....	22.0	22.7
Subaru .....	28.3	28.6
Suzuki .....	43.8	40.6
Toyota .....	29.0	30.3
Volvo .....	25.7	26.0
Volkswagen .....	28.1	28.5
Sales Weighted Average (Import) .....	29.6	29.9
Total Fleet Average .....	28.2	28.5
Fuel Economy Standards .....	27.5	27.5

\*Manufacturers or importers of fewer than 1,000 passenger cars annually are not listed.

Note.—Mercedes-Benz's MY 1994 CAFE value differs from that used in the *Nineteenth Annual Report to the Congress* due to the use of the final EPA calculation.

TABLE II-2.—LIGHT TRUCK FUEL ECONOMY PERFORMANCE BY MANUFACTURER MODEL YEARS 1994 AND 1995

Manufacturer	Model year cafe (MPG) Combined	
	1994	1995
Domestic:		
Chrysler .....	20.5	20.1
Ford .....	20.8	20.6
General Motors .....	19.9	19.8
UMC .....	18.5	( <sup>1</sup> )
Sales Weighted Average (Domestic) .....	20.4	20.1
Import:		
Isuzu .....	20.8	20.6
Land Rover .....	16.4	16.3
Mazda .....	21.2	20.9
Mitsubishi .....	22.0	21.0
Nissan .....	22.5	22.5

TABLE II-2.—LIGHT TRUCK FUEL ECONOMY PERFORMANCE BY MANUFACTURER MODEL YEARS 1994 AND 1995—  
Continued

Manufacturer	Model year cafe (MPG) Combined	
	1994	1995
Subaru .....	29.6	(1)
Suzuki .....	28.5	28.2
Toyota .....	22.0	21.2
Volkswagen .....	21.0	19.6
Sales Weighted Average (Import) .....	22.0	21.6
Total Fleet Average .....	20.6	20.4
Fuel Economy Standards .....	20.5	20.6

<sup>1</sup> Subaru and UMC did not produce light trucks for MY 1995.

In MY 1995, the fleet average fuel economy for import passenger cars increased by 0.3 mpg from the MY 1994 CAFE level to 29.9 mpg. Thirteen of the 18 import car manufacturers increased their CAFE values between MYs 1994 and 1995, including six of the nine Asian manufacturers. Figure II-1 illustrates the changes in total new passenger car fleet CAFE from MY 1978 to MY 1995.

The total light truck fleet CAFE decreased 0.2 mpg below the MY 1994

CAFE level of 20.6 mpg. Figure II-2 illustrates the trends in total light truck fleet CAFE from MY 1979 to MY 1995.

A number of passenger car and a few light truck manufacturers are projected to fail to achieve the levels of the MY 1995 CAFE standards. However, NHTSA is not yet able to determine which of these manufacturers may be liable for civil penalties for non-compliance. Some MY 1995 CAFE values may change when final figures are provided to NHTSA by EPA, in mid-

1996. In addition, several manufacturers are not expected to pay civil penalties because the credits they earned by exceeding the fuel economy standards in earlier years offset later shortfalls. Other manufacturers may file carryback plans to demonstrate that they anticipate earning credits in future model years to offset current deficits.

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Figure II-1

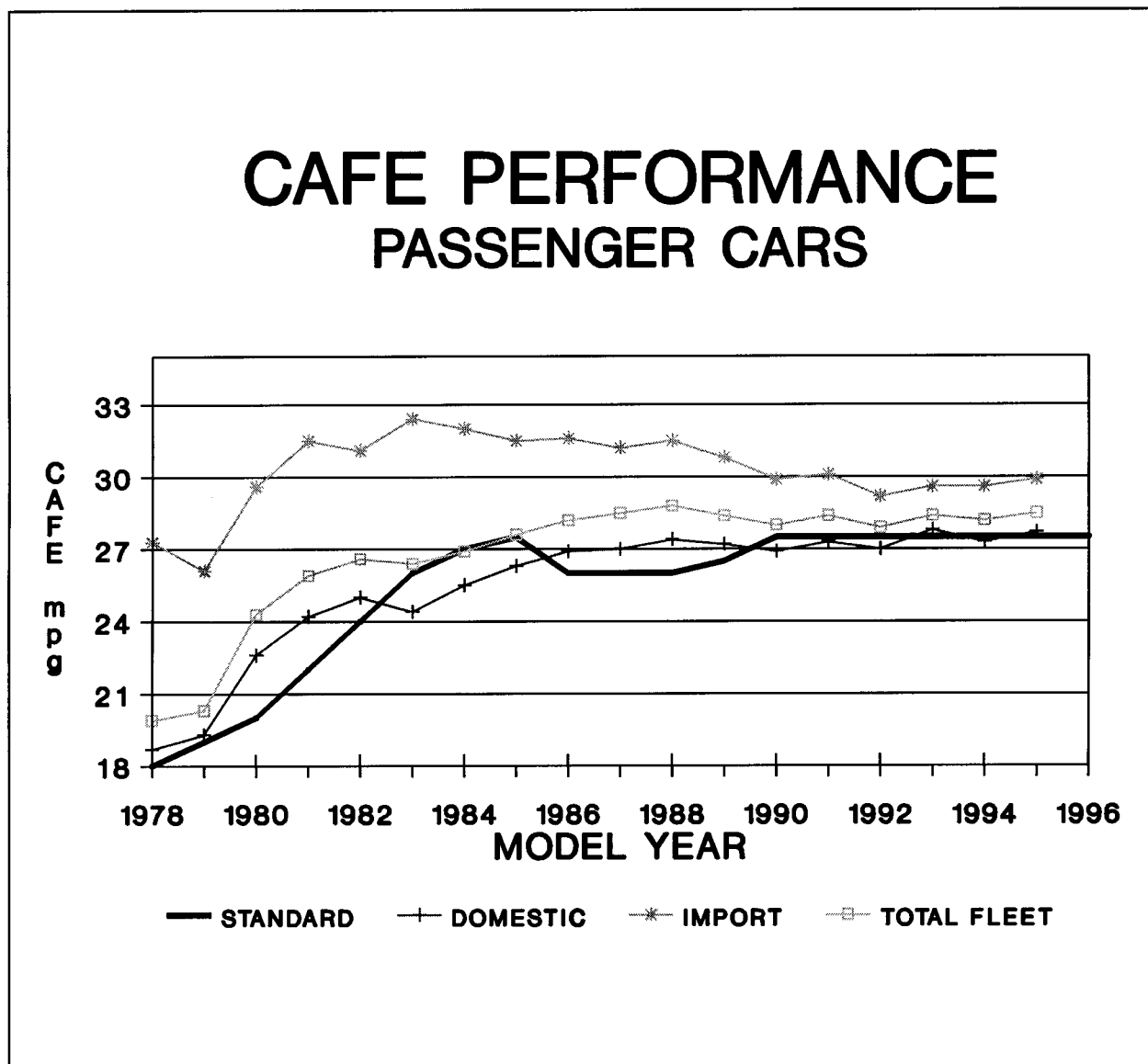
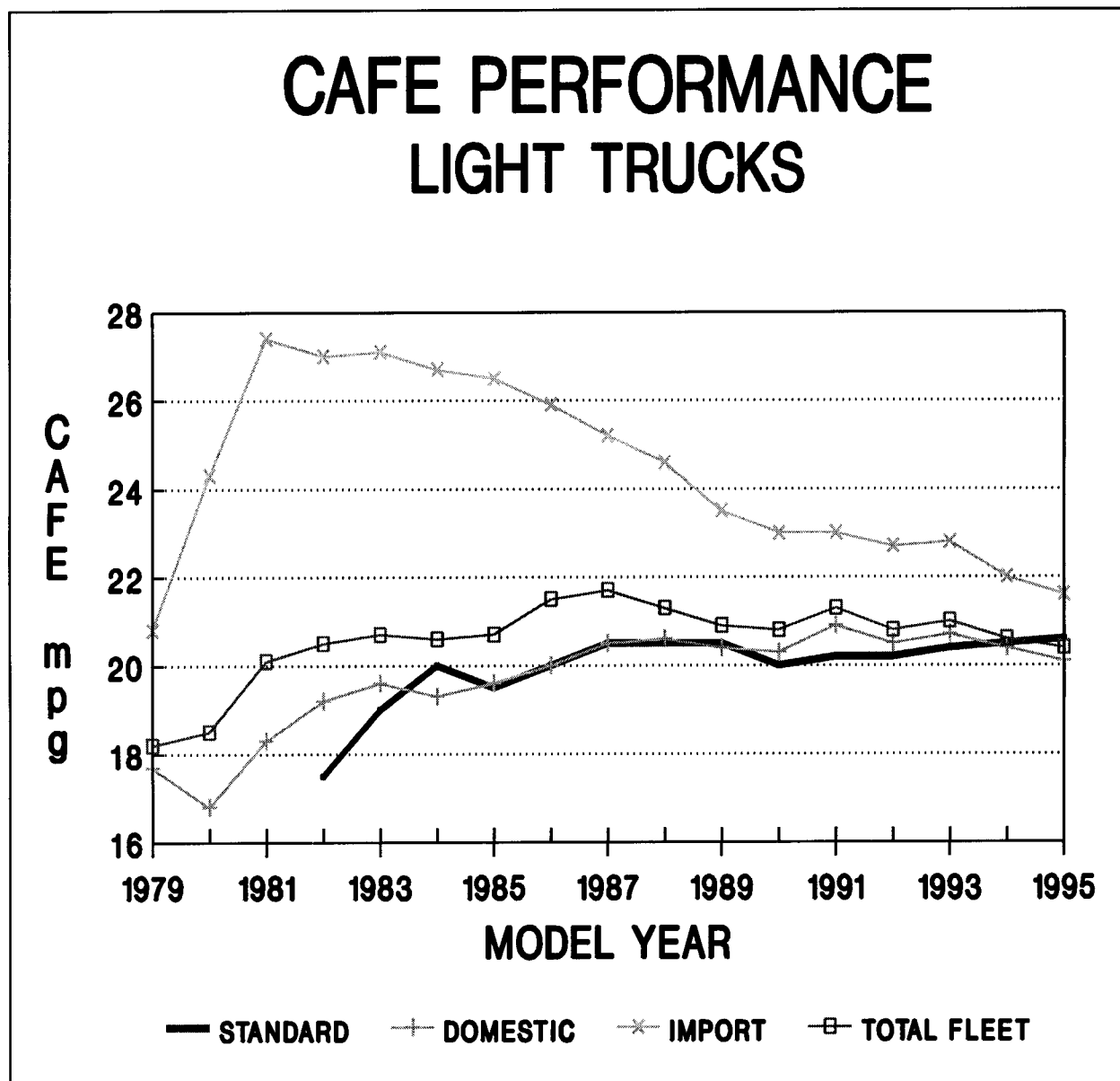


Figure II-2



Fleet average fuel economy for all MY 1995 passenger cars combined exceeded the level of the MY 1995 standard by 1.0 mpg.

Subaru terminated sales of its light trucks in the United States after MY 1994; however, the manufacturer continues to sell its passenger cars. Subaru accumulated substantial CAFE credits during its 11-year marketing span of its light trucks in the United States.

The characteristics of the MY 1995 passenger car fleet reflect a continuing

trend toward satisfying consumer demand for higher performance cars. (See Table II-3.) From MY 1994 to MY 1995, horsepower/100 pounds, a measure of vehicle performance, increased from 4.84 to 4.91 for domestic passenger cars. However, it decreased slightly from 4.71 to 4.52 for import passenger cars. The total fleet average for passenger cars decreased slightly from 4.79 horsepower/100 pounds in MY 1994 to 4.77 in MY 1995. Compared to MY 1994, the average curb weight for

MY 1995 increased by 28 pounds for the domestic fleet and 61 pounds for the import fleet. The total new passenger car fleet is 45 pounds heavier than it was in MY 1994, primarily because of the larger share held by the domestic fleet. Average engine displacement decreased from 188 to 186 cubic inches for domestic passenger cars, and from 137 to 135 cubic inches for import passenger cars, from MY 1994 to MY 1995.

TABLE II-3.—PASSENGER CAR FLEET CHARACTERISTICS FOR MYS 1994 AND 1995

Characteristics	Total fleet		Domestic fleet		Import fleet	
	1994	1995	1994	1995	1994	1995
Fleet Average Fuel Economy, mpg .....	28.2	28.5	27.3	27.7	29.6	29.9
Fleet Average Curb Weight, lbs. ....	3011	3056	3098	3126	2870	2931
Fleet Average Engine Displacement, cu. in. ....	169	168	188	186	137	135
Fleet Average Horsepower/Weight ratio, HP/100 lbs .....	4.79	4.77	4.84	4.91	4.71	4.52
% of Fleet .....	100	100	61.7	64.1	38.3	35.9
Segmentation by EPA Size Class, %						
Two-Seater .....	1.1	0.8	0.5	0.4	2.1	1.5
Minicompact .....	0.4	0.8	0.00	0.00	1.1	2.1
Subcompact* .....	23.3	16.0	17.9	10.3	31.9	26.2
Compact* .....	34.4	40.3	29.5	37.4	42.2	45.4
Mid-Size* .....	25.1	27.9	30.0	31.3	17.1	21.8
Large* .....	15.7	14.3	22.1	20.7	5.5	3.0
Diesel Engines .....	0.01	0.05	0.00	0.00	0.02	0.14
Turbo or Supercharged Engines .....	0.9	0.6	0.4	0.00	1.7	1.8
Fuel Injection .....	100	100	100	100	100	100
Front-Wheel Drive .....	84.7	84.4	85.0	83.9	84.3	85.1
Automatic Transmissions .....	82.8	83.3	89.0	88.9	72.7	73.2
Automatic Transmissions with Lockup Clutches .....	95.2	97.6	95.2	99.3	95.1	94.0
Automatic Transmissions with Four or more Forward Speeds .....	83.6	87.4	78.6	84.5	93.4	93.7

\* Includes associated station wagons.

The 0.4 mpg fuel economy improvement for the MY 1995 domestic passenger car fleet may be attributed in part to mix shifts and in part to technology changes in several areas: a pronounced increase in the use of more automatic transmissions with lockup torque converters and more automatic transmissions with four speeds.

The size/class breakdown shows an increased trend towards minicompact, compact, and mid-size passenger cars and a decrease in two-seater, subcompact, and large passenger cars for the overall fleet. The size/class mix in both the domestic and import fleet shifted from subcompact and large passenger cars to compact and mid-size passenger cars. The import share of the passenger car market declined slightly in MY 1995.

The domestic fleet had a decrease in share of turbocharged and supercharged engines. Diesel engines rose slightly in share in MY 1995, but were offered only by one import manufacturer.

Passenger car fleet average characteristics have changed significantly since MY 1978 (the first year of fuel economy standards). (See Table II-4.) After substantial initial weight loss (from MY 1978 to MY 1982, the average passenger car fleet curb weight decreased from 3,349 to 2,808 pounds), then stabilized between 2,800 and 3,000 pounds. Table II-4 shows that the MY 1995 passenger car fleet has nearly equal interior volume and higher performance, but with over 40 percent better fuel economy, than the MY 1978 fleet. (See Figure II-3.)

The characteristics of the MY 1995 light truck fleet are shown in Table II-5. Since light truck manufacturers are not required to divide their fleets into domestic and import fleets based on the 75-percent domestic content threshold used for passenger car fleets, the domestic and import fleet characteristics in Table II-5 are estimated, based mainly on manufacturer name. The agency assumed that all products of foreign-based manufacturers would not meet the domestic content threshold, whether they were assembled in the United States or Canada, or in another country. The exception to this is the assumption that the import-badged products of a domestic manufacturer's assembly plant were "domestic" (Mazda B-Series pickup and Nissan Quest).

TABLE II-4.—NEW PASSENGER CAR FLEET AVERAGE CHARACTERISTICS  
[Model Years 1978–1995]

Model year	Fuel economy (mpg)	Curb weight (lb.)	Interior space (cu. ft.)	Engine size (cu. in.)	Horse- power/ weight (hp/100 lb.)
1978 .....	19.9	3349	112	260	3.68
1979 .....	20.3	3180	110	238	3.72
1980 .....	24.3	2867	105	187	3.51
1981 .....	25.9	2883	108	182	3.43
1982 .....	26.6	2808	107	173	3.47
1983 .....	26.4	2908	109	182	3.57
1984 .....	26.9	2878	108	178	3.66
1985 .....	27.6	2867	108	177	3.84
1986 .....	28.2	2821	106	169	3.89
1987 .....	28.5	2805	109	162	3.98
1988 .....	28.8	2831	107	161	4.11
1989 .....	28.4	2879	109	163	4.24
1990 .....	28.0	2908	108	163	4.53
1991 .....	28.4	2934	108	164	4.42
1992 .....	27.9	3007	108	169	4.56
1993 .....	28.4	2971	109	164	4.62
1994 .....	28.2	3011	109	169	4.79
1995 .....	28.5	3056	110	168	4.77

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Figure II-3

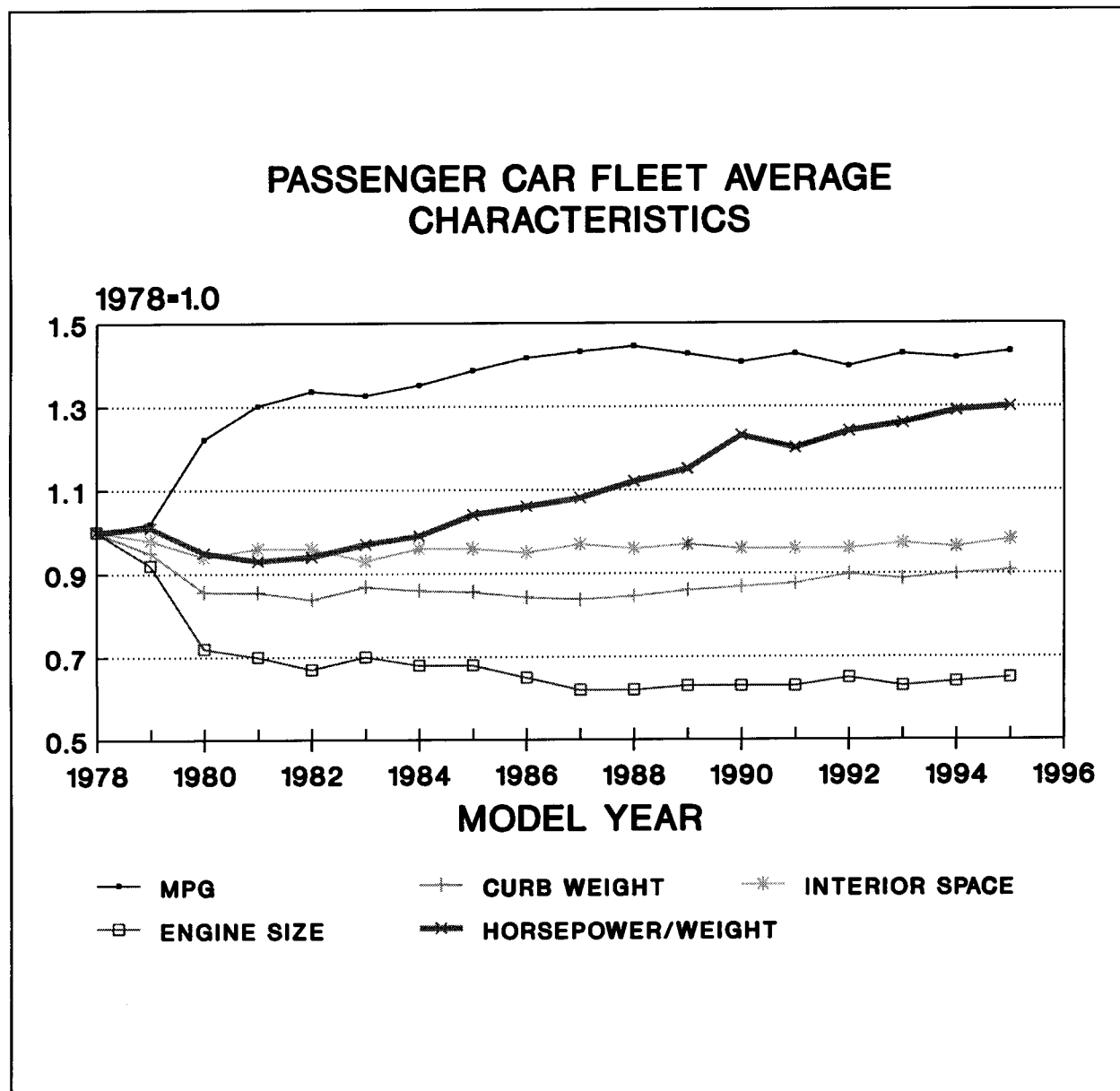


TABLE II-5—LIGHT TRUCK FLEET CHARACTERISTICS FOR MYS 1994 AND 1995

Characteristics	Total fleet		Domestic fleet		Import fleet	
	1994	1995	1994	1995	1994	1995
Fleet Average Fuel Economy, mpg .....	20.6	20.4	20.4	20.1	22.0	21.6
Fleet Average Equivalent Test Weight, lbs .....	4274	4338	4340	4409	3832	3938
Fleet Average Engine Displacement, cu. in .....	243	244	255	257	165	171
Fleet Average Horsepower/ Weight ratio, HP/100 lbs .....	3.86	3.87	3.89	3.93	3.65	3.54
% Fleet .....	100	100	87.0	84.8	13.0	15.2
Segmentation by Type, %:						
Passenger Van Compact .....	18.0	19.6	19.7	22.3	6.3	4.7
Large .....	0.5	0.5	0.6	0.6	.....	.....
Cargo Van Compact .....	1.5	1.7	1.7	2.0	.....	.....
Large .....	4.7	4.9	5.4	5.8	.....	.....
Small Pickup * .....	6.6	7.7	5.3	5.7	14.8	20.2
Large Pickup * .....	40.0	32.0	40.5	33.3	36.8	24.5
Special Purpose .....	28.7	33.6	26.7	30.6	42.2	50.6
Diesel Engines .....	0.30	0.18	0.30	0.22	.....	.....
Fuel Injection .....	99.7	99.6	100	100	97.7	97.5
Automatic Transmissions .....	77.3	78.8	82.4	83.5	42.7	52.3
Automatic Transmissions with Lockup Clutches .....	98.3	99.0	98.6	99.3	94.0	95.4
Automatic Transmissions with Four Forward Speeds .....	92.1	93.3	91.6	92.6	98.9	99.3
4-Wheel Drive .....	36.1	38.0	34.1	35.5	50.6	52.2

\* Including Cab Chassis.

The MY 1995 average test weight of the total light truck fleet increased by 64 pounds over that for MY 1994. Increased popularity of special purpose vehicles, heavier trucks, and trucks with 4-wheel drive (4WD) lowered the fleet fuel economy in MY 1995 but was offset slightly by an increase in the use of automatic transmissions with four forward speeds resulting in an overall decline of 0.2 mpg to 20.4 mpg. Diesel engine usage decreased in light trucks to 0.18 percent in MY 1995 from 0.30 percent in MY 1994. The share of the MY 1995 import light truck fleet increased to 15.2 percent.

CAFE levels for light trucks in the 0–8,500 pounds gross vehicle weight (GVW) class increased from 18.5 mpg in MY 1980 to 21.7 mpg in MY 1987, before declining to 20.4 mpg in MY 1995, influenced by an increase in

average weight, engine size, and performance. Light truck production increased from 1.9 million in MY 1980 to 5.7 million in MY 1995. Light trucks comprised 38 percent of the total light duty vehicle fleet production in MY 1995, more than triple the share in MY 1980.

Figure II-4 illustrates an increase in the light duty fleet (combined passenger cars and light trucks) average fuel economy through MY 1987, followed by a gradual decline. (See Table II-6.) Passenger car average fuel economy remained relatively constant for MYs 1987–1995. The overall decline in fuel economy illustrates the growing influence of light trucks and their significant impact on the light duty fleet.

While passenger car fleet fuel economy increased from MY 1994 to

MY 1995 by 0.3 mpg and light truck fleet fuel economy decreased by 0.2 mpg, the total fleet fuel economy for MY 1995 increased 0.1 mpg over the MY 1994 level (24.6 mpg for MY 1994 and 24.7 mpg for MY 1995). The shift to light trucks for general transportation is an important trend in consumers' preference and has a significant fleet fuel consumption effect.

Domestic and import passenger car fleet average fuel economies have improved since MY 1978, although the increase is far more dramatic for the domestic fleet. In MY 1995, both domestic and import passenger car fleet average fuel economies increased from the prior year to 27.7 mpg and 29.9 mpg, respectively. Compared to MY 1978, this reflects an increase of 9.0 mpg for domestic cars and 2.6 mpg for import cars.

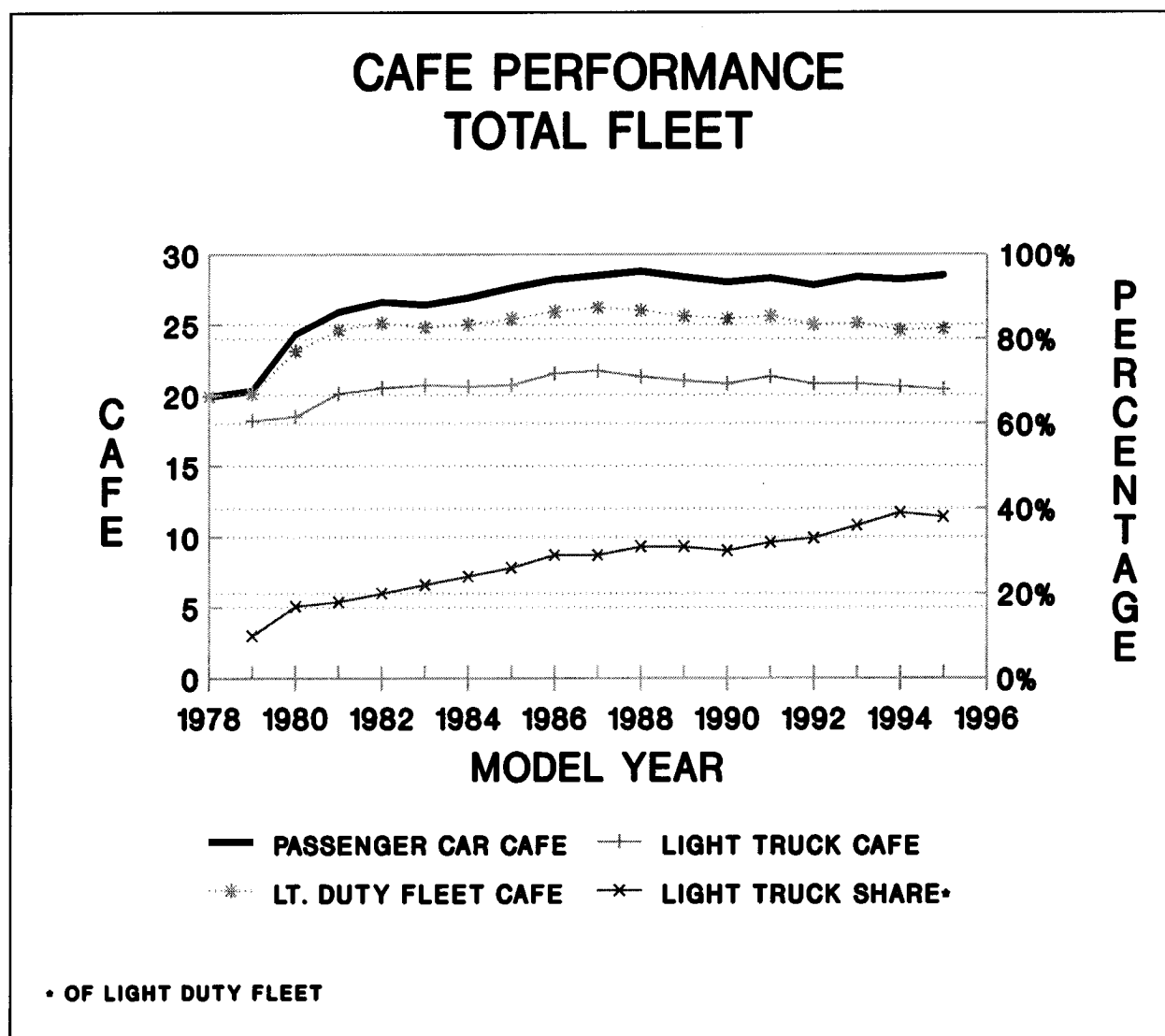
TABLE II-6.—DOMESTIC AND IMPORT PASSENGER CAR AND LIGHT TRUCK FUEL ECONOMY AVERAGES FOR MODEL YEARS 1978–1995  
(IN MPG)

Model year	Domestic			Import			All cars	All light trucks	Total fleet
	Car	Light truck	Com-bined	Car	Light truck	Com-bined			
1978 .....	18.7	.....	.....	27.3	.....	.....	19.9	.....	.....
1979 .....	19.3	17.7	19.1	26.1	20.8	25.5	20.3	18.2	20.1
1980 .....	22.6	16.8	21.4	29.6	24.3	28.6	24.3	18.5	23.1
1981 .....	24.2	18.3	22.9	31.5	27.4	30.7	25.9	20.1	24.6
1982 .....	25.0	19.2	23.5	31.1	27.0	30.4	26.6	20.5	25.1
1983 .....	24.4	19.6	23.0	32.4	27.1	31.5	26.4	20.7	24.8
1984 .....	25.5	19.3	23.6	32.0	26.7	30.6	26.9	20.6	25.0
1985 .....	26.3	19.6	24.0	31.5	26.5	30.3	27.6	20.7	25.4
1986 .....	26.9	20.0	24.4	31.6	25.9	29.8	28.2	21.5	25.9

TABLE II-6.—DOMESTIC AND IMPORT PASSENGER CAR AND LIGHT TRUCK FUEL ECONOMY AVERAGES FOR MODEL YEARS 1978–1995—Continued  
(IN MPG)

Model year	Domestic			Import			All cars	All light trucks	Total fleet
	Car	Light truck	Com-bined	Car	Light truck	Com-bined			
1987 .....	27.0	20.5	24.6	31.2	25.2	29.6	28.5	21.7	26.2
1988 .....	27.4	20.6	24.5	31.5	24.6	30.0	28.8	21.3	26.0
1989 .....	27.2	20.4	24.2	30.8	23.5	29.2	28.4	20.9	25.6
1990 .....	26.9	20.3	23.9	29.9	23.0	28.5	28.0	20.8	25.4
1991 .....	27.3	20.9	24.4	30.1	23.0	28.4	28.4	21.3	25.6
1992 .....	27.0	20.5	23.8	29.2	22.7	27.9	27.9	20.8	25.1
1993 .....	27.8	20.7	24.2	29.6	22.8	28.1	28.4	21.0	25.2
1994 .....	27.3	20.4	23.5	29.6	22.0	27.8	28.2	20.6	24.6
1995 .....	27.7	20.1	23.7	29.9	21.6	27.6	28.5	20.4	24.7

Figure II-4



Since MY 1980, the total light truck fleet average fuel economy and the average for domestic light truck manufacturers have improved overall, but both have remained below the fuel economy level for the imported light truck fleet. The imported light truck average fuel economy has decreased significantly since its highest level of 27.4 mpg for MY 1981 to 21.6 mpg for MY 1995. For MY 1995, the domestic light truck fleet has an average fuel economy level of 20.1 mpg, which is 1.5 mpg lower than the import light truck fleet. For MY 1995, the imported light truck fleet fuel economy decreased 0.4 mpg below the MY 1994 level to 21.6 mpg. The domestic manufacturers continued to dominate the light truck market, comprising 85 percent of the total light truck fleet.

The disparity between the average CAFEs of the import and domestic manufacturers has declined in recent years as domestic manufacturers maintain relatively stable CAFE values while the import manufacturers move to larger, higher performance vehicles, and more 4-wheel drive light trucks.

### Section III: 1995 Activities

#### A. Passenger Car CAFE Standards

The following synopsis describes recent litigation challenging NHTSA actions under the CAFE program.

##### *Competitive Enterprise Institute v. NHTSA*, D.C. Cir., No. 93-1210

This case involves a challenge by the Competitive Enterprise Institute (CEI) to NHTSA's January 15, 1993, decision to again terminate rulemaking the agency commenced to consider amending the MY 1990 passenger car CAFE standard. The D.C. Circuit had reversed NHTSA's original termination decision in 1992. *Competitive Enterprise Institute v. NHTSA*, 956 F.2d 321, (D.C. Cir. 1992). On February 3, 1995, the court issued a unanimous decision dismissing the petition for review and upholding the agency's decision not to amend the MY 1990 passenger car CAFE standard. *Competitive Enterprise Institute v. NHTSA*, 45 F.3d 481, (D.C. Cir. 1995). CEI filed a petition for rehearing on March 20, 1995, the agency filed its

response, opposing rehearing, on April 24, 1995. On May 17, 1995, the Court denied rehearing and rehearing *en banc*.

#### B. Light Truck CAFE Standards

The agency issued an advance notice of proposed rulemaking for Light Truck Average Fuel Economy Standards for MYs 1998-2006 (59 FR 16324; April 6, 1994). The agency sought information that would help to assess the extent to which manufacturers can improve light truck fuel economy, the benefits and costs to consumers of improved fuel economy, the benefits to the Nation of reducing fuel consumption, and the number of model years that should be covered by the proposal.

The Department of Transportation and Related Agencies Appropriations Act for Fiscal Year 1996, P.L. 104-50, directed the agency not to expend funds "to prepare, propose, or promulgate any regulations \* \* \* prescribing CAFE standards for automobiles, as defined in such title, in any model year that differs from standards promulgated for such automobiles prior to enactment of this section." The Act was passed while the agency was considering the MY 1998 light truck standard. Subsequently, the agency issued a notice of proposed rulemaking proposing a light truck fuel economy standard for MY 1998 of 20.7 mpg, which is the current standard. A final rule will be issued early in 1996.

#### C. Low Volume Petitions

49 U.S.C. 32902(d) provides that a low volume manufacturer of passenger cars may be exempted from the generally applicable passenger car fuel economy standards if these standards are more stringent than the maximum feasible average fuel economy for that manufacturer and if NHTSA establishes an alternative standard for that manufacturer at its maximum feasible level. A low volume manufacturer is one that manufactured fewer than 10,000 passenger cars worldwide, in the model year for which the exemption is sought (the affected model year) and in the second model year preceding that model year.

NHTSA acted on four low volume petitions in 1995, which were filed by

Bugatti International Holding, SA (Bugatti International), MedNet, Inc., Rolls-Royce, and Lamborghini.

Bugatti International filed a joint low volume petition for Bugatti and Lotus high performance vehicles. Bugatti International requested alternative standards for its passenger cars for MYs 1994, 1995, and 1996. Because of the financial instability of Bugatti, Lotus resubmitted to the agency its own low volume petition. The agency is reviewing Lotus' petition and will respond in early 1996.

MedNet, Inc., requested an alternative standard for its recently acquired Dutcher PTV vehicles for MYs 1995, 1996, and 1997. NHTSA established an alternative standard of 17.0 mpg for the three model years (60 FR 47877; September 15, 1995).

Rolls-Royce requested an alternative standard for its passenger cars for MY 1997. NHTSA issued a proposed decision to grant an alternative standard of 15.1 mpg for MY 1997 (60 FR 37861; July 24, 1995).

Lamborghini filed a joint low volume petition for Lamborghini and Vector high performance vehicles. Lamborghini requested alternative standards for its passenger cars for MYs 1995, 1996, and 1997. NHTSA is reviewing this petition and will respond in early 1996.

Rolls Royce filed a low volume petition for MYs 1998 and 1999 in December 1995. NHTSA will respond to this petition during 1996.

#### D. Enforcement

49 U.S.C. 32912(b) imposes a civil penalty of \$5 for each tenth of a mpg by which a manufacturer's CAFE level falls short of the standard, multiplied by the total number of passenger automobiles or light trucks produced by the manufacturer in that model year. Credits that were earned for exceeding the standard in any of the three model years immediately prior to or subsequent to the model years in question can be used to offset the penalty.

Table III-1 shows the most recent CAFE fines paid by manufacturers. Final CAFE figures for MY 1994 were not available for most manufacturers.

TABLE III-1.—CAFE FINES COLLECTED DURING FY 1995

Model year	Manufacturer	Amount fined	Date paid
1990 .....	Callaway Cars, Inc. ....	(\$20,400)	12/94
	Consulier Industries .....	50	01/95
1991 .....	Maserati .....	1,600	12/94
	Consulier Industries .....	50	01/95
1992 .....	Mercedes-Benz .....	18,122,440	12/94
	Consulier Industries .....	50	01/95
1993 .....	Peugeot .....	910	10/94
	Porsche .....	668,500	10/94

TABLE III-1.—CAFE FINES COLLECTED DURING FY 1995—Continued

Model year	Manufacturer	Amount fined	Date paid
	Mercedes-Benz .....	13,531,590	12/94
	Land Rover .....	1,094,660	01/95
	Autokraft Ltd .....	2,590	08/95
	BMW .....	7,427,160	09/95
1994 .....	Mercedes-Benz .....	11,254,080	12/94
1995 .....	Mercedes-Benz .....	7,498,995	12/94

#### *E. Partnership for a New Generation of Vehicles (PNGV)*

The agency has been assisting, within existing resources, the PNGV participants in the early stages of subsystem development and systems analysis in support of the objectives of the program. In addition to limited staff participation by NHTSA and the Volpe National Transportation Systems Center (Volpe Center) in selected materials and systems analysis activities, the Department, along with the Department of Commerce, has funded the National Research Council's annual review of the PNGV program.

The Joint Conference Report on the DOT budget for FY 1996 removed funds for agency support of PNGV activities in safety and infrastructure analysis. The reasoning for this deletion of funds was that the Congress felt that the agency did not need funds until the PNGV vehicles were further defined. Nevertheless, the agency will continue to make its staff available wherever they can be of use in the PNGV program.

#### *F. Advisory Committee on Personal Motor Vehicle Greenhouse Gas Reductions*

As part of the Administration's "Climate Change Action Plan," the White House formed a one-year advisory committee to develop recommendations to reduce greenhouse gas emissions by light vehicles to the year 1990 level. The committee comprised 29 members representing environmental and public interest groups, automotive manufacturers, fuel suppliers, vehicle users, and state and local governments.

The goal of the committee was to develop policy options that will cost-effectively reduce greenhouse gas emissions from the use of light vehicles (cars and light trucks) to the 1990 level by years 2005, 2015, and 2025. These policy options encompassed reductions in vehicle-miles-traveled (VMT), vehicle efficiency enhancement, and alternative fuels. The committee examined:

- vehicle technologies;
- fuels with lower carbon content;
- vehicle-based regulatory strategies such as CAFE;

- vehicle taxes and/or rebates;
- market-based actions to reduce VMT (fuel taxes, congestion, and pricing, and pay-at-the-pump insurance)
- other approaches (e.g., changed land-use patterns, increased mass transit, telecommuting, Intelligent Transportation Systems (ITS), and increased carpooling).

On September 20, 1995, the advisory group conducted its final meeting and failed to form a consensus report for the Administration on the recommendation to reduce light vehicle greenhouse gas emissions.

#### *G. Contract Activities*

During 1995, NHTSA continued to fund the maintenance of a database that details the finances, products, and production capacities of North American automobile manufacturing plants. This program is administered by the Volpe Center with annual funding of \$60,000.

In response to a request in the Conference Report on the FY 1995 DOT Appropriations Act, NHTSA also initiated a study of the unique capabilities, uses, and utility requirements of light trucks that result in design constraints for fuel economy improvement. This study is also being conducted by the Volpe Center, using the \$300,000 appropriation designated by Congress for the study. The final report will be available early in 1996.

Finally, the agency has awarded a small contract of \$46,750 to study the potential fuel economy improvements that could be achieved by the application of variable valve timing to conventional engines. This study will include an analysis of the cost implications of the technology. The report will be published in 1996.

#### *Section IV: Use of Advanced Technology*

This section fulfills the statutory requirement of Section 305 of Title III of the Department of Energy Act of 1978 (P.L. 95-238), which directs the Secretary of Transportation to submit an annual report to Congress on the use of advanced technologies by the automotive industry to improve motor

vehicle fuel economy. This report focuses on the introduction of new models, advances in engine and transmission technology, the application of materials to save weight, and the advances in electronic technology which improved fuel economy in MY 1995.

#### *A. New Models*

Domestic auto manufacturers introduced a number of significant new products and made major changes to several existing models for MY 1995. Chrysler replaced its compact Sundance and Shadow models with the Neon which has a larger interior, but weighs about 100 lbs less and achieves an average fuel economy of over 34 mpg, 5.5 mpg higher than the predecessor models. Chrysler also replaced the mid-size Spirit and Acclaim with the Dodge Stratus and Chrysler Cirrus. These models weigh about the same as their predecessors, but the average fuel economy is about 1 mpg lower due to more emphasis on higher performance engine options. Chrysler introduced the Chrysler Sebring and Dodge Avenger sports coupes which averaged 27.7 mpg. They replace certain Chrysler LeBaron models and the Dodge Daytona which had been previously discontinued. Both cars are produced for Chrysler by Mitsubishi at its Illinois assembly plant. Mitsubishi also produced a new Eagle Talon for Chrysler which has better performance and improved aerodynamics, but is similar to the previous model in fuel economy.

Ford introduced a front-wheel drive minivan, the Windstar, supplementing the Aerostar rear-wheel drive model which remains in production. The Windstar achieved an average fuel economy of 22.8 mpg, 1 mpg better than the Aerostar. The Ford Explorer sport utility was restyled for MY 1995 and included dual airbags, side door beams, and redesigned front suspension. The new Explorer weighs an average of about 250 lbs more than its predecessor, but achieves about the same fuel economy. The Ford Tempo/Mercury Topaz model was replaced by an entirely new model, the Ford Contour/Mercury Mystique, and featured new

engines and transmissions, as well. This is a world car program with a European counterpart known as the Ford Mondeo. The Contour/Mystique is over 200 lbs heavier than the Tempo/Topaz, but fuel economy is better by about 2.5 mpg. Ford also redesigned the Lincoln Continental which becomes the first front-wheel drive Ford product to use a V-8 engine. The engine is a 4-valve-per-cylinder dual overhead cam (DOHC) design. The Continental has dual airbags, four-wheel disc brakes, a load leveling suspension, and driver-selected modes for power steering effort and ride control. The new model weighs about 400 lbs more than the 1994 model, and the fuel economy is about 0.8 mpg lower.

The General Motors Blazer and Jimmy compact sport utilities were restyled for improved aerodynamics and featured better ride and handling. The new models achieved about the same fuel economy as the 1994 models. A 4-door model was added to the large sport utility models of the Chevrolet Tahoe and GMC Yukon. This 4-door model is lighter and 14 in. shorter than the Suburban and is also available with either 2WD or 4WD. The subcompact Geo Metro was redesigned to have a larger interior and a 4-cylinder engine in the 4-door models. The weight of the new models increases by 200 lbs. and the fuel economy declines to an average of 44 mpg, still one of the best in the industry. The compact Chevrolet Cavalier and Pontiac Sunfire were completely redesigned for the first time since their introduction in 1982. The new models have longer wheelbases, but shorter overall length, offer an optional 4-valve-per-cylinder engine, and have an average fuel economy more than 1 mpg higher than the 1994 models. Compared to the original 1982 models, the 1995 Cavalier/Sunfire models weigh about 250 lbs more due to a higher content of convenience, safety, and emissions equipment but still deliver about 1.8 mpg more in fuel economy. The mid-size Chevrolet Lumina was extensively redesigned and the coupe was redesignated as the Monte Carlo. The weight remains about the same, but the average fuel economy has declined by about 0.5 mpg. Finally, GM introduced entirely new mid-size Buick Riviera and Oldsmobile Aurora models. These replace the Riviera and Toronado models that were discontinued after MY 1993. The Riviera uses a significantly redesigned version of the pushrod 3.8 L V-6 engine with a supercharger option while the Aurora uses a new 4 L DOHC V-8. Both

models are heavier and have lower fuel economies than their predecessors.

Among the import manufacturers, BMW redesigned its 7-series models for greater body rigidity, improved suspension, longer wheelbase, and dual airbags. The average weight of the series is unchanged, but the fuel economy has improved by about 0.6 mpg.

Honda introduced its first minivan, the Odyssey, which was based on the Accord platform. It has 3 rows of seats, accommodating up to 7 passengers and an average fuel economy of 25.5 mpg.

Hyundai introduced a redesigned mid-size Sonata model with a new platform, interior, suspension, longer wheelbase, and dual airbags. Fuel economy improved by about 0.8 mpg. Hyundai also replaced its subcompact Excel with a compact Accent model. This model also features a new suspension, dual airbags, and a longer wheelbase. Average fuel economy is improved by about 1 mpg to 36.9 mpg.

Another South Korean Manufacturer, Kia, expanded its line of vehicles offered for sale in the U.S. by adding a compact sports utility model, the Sportage. The Sportage is available in both 2WD and 4WD versions and averaged 25.5 mpg for MY 1995.

Mazda introduced a redesigned compact Protege with dual airbags, a larger interior, two optional DOHC engines, and an average fuel economy that, at 35.5 mpg, was 3 mpg higher than the previous model. Mazda also introduced a new line of sedans called the Millenia. One of the engine options on the Millenia is the 2.3 L, 4-valve-per-cylinder, DOHC Miller cycle V-6 with a supercharger. This model achieves about 1 mpg better fuel economy than the conventional 2.5 L standard engine.

As a companion to the Eagle Talon, Mitsubishi introduced a redesigned Eclipse sports model. It was over 100 lbs heavier than the predecessor model, but achieved about the same fuel economy.

Nissan introduced major redesigns of three passenger car lines for MY 1995: the Sentra, the 240SX, and the Maxima. All three lines now include dual airbags, and each has a fuel economy rating of about 2 mpg higher than the previous model and a larger interior volume. The Maxima includes a redesigned 3 L DOHC V-6 engine.

Land Rover introduced the first major redesign in 25 years of its luxury sport utility, the Range Rover 4.0 SE. The new model has better ride and handling, dual airbags, and somewhat higher fuel economy with the redesigned 4 L V-8 engine.

The compact Subaru Legacy was redesigned to include greater interior volume and dual airbags. Fuel economy

improved by over 1 mpg on both the 2WD and 4WD versions of this model.

The subcompact Suzuki Swift was redesigned like the companion Geo Metro to have a longer wheelbase, larger interior, and dual airbags. Average fuel economy increased by nearly 1 mpg to 44.4 mpg.

Toyota's new models for MY 1995 included a redesign of the subcompact Tercel to include dual airbags and a new 1.5 L 4-valve-per-cylinder DOHC engine that yielded an average fuel economy of 39.5 mpg, nearly 4 mpg higher than the 1994 model. Toyota also introduced the new Avalon, Toyota's first large car with 6-passenger seating. Its fuel economy averaged 26.9 mpg, one of the highest values for a large car. Toyota's Lexus LS400 was redesigned to have a longer wheelbase, larger interior, and a new 4 L V-8. The LS400 is lighter by about 250 lbs and delivers nearly 2 mpg higher fuel economy than its predecessor. Toyota's compact pickup line was redesigned for MY 1995 and renamed the Tacoma. The base engine for the 4WD models was enlarged to 2.7 L and the optional engine on both lines is a new 3.4 L DOHC V-6. The 4WD models are lighter and achieve about 0.5 mpg higher average fuel economy. The 2WD models, however, weigh about the same as their predecessors, but have about 1 mpg lower average fuel economy.

Volkswagen redesigned its compact Passat line to be mid-size without changing the average weight or fuel economy of these models. The Cabriolet model was replaced after a year's absence with a new, larger Cabrio model that weighed about 300 lbs more but achieved nearly the same fuel economy as the 16-year old design.

### *B. Engine and Transmission Technology*

Several new engine designs and some significant engine redesigns were introduced on light vehicles for sale in the U.S. for MY 1995. The new engines for Chrysler include a 2 L, 4-valve-per-cylinder, 4-cylinder engine for use in the Neon, the Stratus, and the Talon in various versions. It is produced in single-overhead camshaft (SOHC) and DOHC configurations, and the DOHC design is offered in naturally aspirated and turbocharged versions. Another new Chrysler engine is a similar, but larger, 2.4 L DOHC, 4-valve, 4-cylinder engine with a balance shaft for the Cirrus and Stratus. Chrysler also introduced a 2.5 L SOHC, 4-valve V-6 for the Cirrus and Stratus. All of these engines use cast iron blocks with aluminum cylinder heads. The 2 L DOHC engine has the highest specific

output of any naturally aspirated engine that Chrysler has ever produced.

Ford developed two new engines for its new Contour and Mystique models—the 2 L 4-cylinder “Zetec,” and the 2.5 L V-6 “Duratec.” Both engines use 4 valves per cylinder. The Zetec is SOHC with cast iron block and aluminum cylinder head while the Duratec is DOHC with aluminum block and cylinder heads. Ford claims the Duratec engine is the smallest and lightest V-6 engine in the world for its displacement, and Ford has established a 100,000-mile interval for major service of the engine. A significant engine modification at Ford was the adaptation of the 4.6 L DOHC 4-valve V-8 for a transverse, FWD installation for the Lincoln Continental. This is Ford's first application of a V-8 engine in a FWD car. This engine was previously used only in the rear-wheel drive Mark VIII.

GM introduced a 4 L version of its Premium V engine family for the Oldsmobile Aurora. This engine is a DOHC V-8 with 4 valves per cylinder and uses an aluminum block and cylinder heads. A 1.3 L SOHC 4-cylinder was added to the Geo Metro line to augment the previous 1 L 3-cylinder engine. The engine has an aluminum block and cylinder head and produces 40 percent more horsepower than the 3-cylinder. GM also refined the 2.3 L Quad 4 engine by adding two balance shafts to reduce the engine vibration. The GM 3.8 L V-6 received extensive improvements with larger valves, lighter pushrod valve train, and a lower, lighter engine block. The redesigned engine produces more power, better fuel economy, and less emissions than its predecessor.

Mazda introduced a modification of the conventional spark ignition engine called the “Miller cycle.” By using a late closing of the intake valves coupled with a supercharger, the Miller cycle design reduces pumping losses while retaining high power and mid-range torque. The optional 2.3 L DOHC 4-valve V-6 Miller cycle engine produces better fuel economy and better performance in the Mazda Millenia than the similar, but conventional cycle, 2.5 L standard engine. Mazda also claims that its Miller cycle engine will have 1.3 times better durability than conventional engines.

Mercedes-Benz introduced a 4-valve-per-cylinder, naturally aspirated diesel engine with a catalytic converter that meets 50 state emissions standards. The new engine is an indirect injection design with a variable resonance intake manifold to improve the torque performance. It was offered in the 3,500-lb E300 sedan where it achieved an

average fuel economy of 34.2 mpg, the highest fuel economy of any car of over 2,700 lbs curb weight.

Nissan developed a 3 L DOHC V-6 “VQ” engine with aluminum block and cylinder heads for use in its Maxima passenger cars. The engine has lower internal friction and lighter rotating parts than its predecessor, resulting in improved performance and fuel economy for the Maxima. This engine is expected to be produced in other sizes in the future for other Nissan models.

Saab began offering its “Light Pressure Turbo (LPT)” 2.3 L engine in U.S. models of the 9000. This engine has a lower turbocharger boost pressure that achieves better fuel economy with smoother power flow by reducing the typical turbocharger lag. The Saab 9000 with this LPT engine had the best fuel economy of any large car in MY 1995.

New transmissions for MY 1995 include the Ford 4-speed automatic for the Contour and Mystique which features a belt-rather than gear-drive to the final drive. Ford claims this electronically controlled transmission is the most compact 4-speed automatic for its torque capacity. Ford also designed a new 5-speed manual transmission for these models that has low friction bearings and is synchronized in all gears. GM developed its first 4-speed transverse automatic transmission for use in compact cars.

#### *C. Electronics*

As electronic devices for safety and convenience proliferate, much of the improvements in electronics are centered on further integration of the control systems. MY 1995 saw an increase in the application of anti-lock braking systems, traction control, anti-theft devices, and remote locking systems. New or more advanced electronic systems are being applied to engine diagnostics, more sophisticated air bag systems, vehicle stability controls, and navigation systems. The auto industry and its suppliers are developing computers, integrated circuits, and multiplex wiring to simplify and improve the operation of the variety of electronic systems contained in the modern vehicle.

#### *D. Materials*

Although the average weight of the new passenger car and light truck fleets increased for MY 1995, auto manufacturers introduced significant new applications of lighter or stronger materials that precluded greater weight increases on some models. According to information included in Ward's Automotive Yearbook 1995, several materials have increased their share of

the composition of the typical family vehicle between 1990 and 1995. These materials include high- and medium-strength steel, stainless steel, plastics and plastic composites, aluminum, powder metal (PM), magnesium, and glass. These increases have been at the expense of several of the more traditional automotive materials: regular steel, cast iron, copper and brass, and zinc.

Some of the notable applications of lighter or stronger materials are discussed in the following paragraphs.

Examples of new model uses of high- and medium-strength steels include medium-strength steel for the hood, door, and rear-hatch outer panels of the Eagle Talon/Mitsubishi Eclipse and high-strength steel for the longitudinal frame rails. The front door inner panels and hinge reinforcements of the Dodge/Plymouth Neon are high-strength steel. Ford uses bake-hardenable medium-strength steel for outer body panels on the Windstar minivan and the Contour and Mystique sedans.

New applications for plastics for MY 1995 have been mainly in small parts and conversions from one type of plastic to another. Some of the notable applications include sheet molding composite (SMC) hoods for the Ford Windstar and hoods and front fenders for the Lincoln Continental. Plastic intake manifolds are widely used, and new applications for MY 1995 include the Ford 2 L, 16-valve engine, the Cadillac Northstar and Olds Aurora V-8s, and the Ford Windstar 3.8 L V-6.

Much of the growth in use of aluminum in MY 1995 vehicles can be attributed to Ford Motor Company applications. The Duratec V-6 engine for the Contour/Mystique models is the first U.S.-production 6-cylinder engine with both the block and heads of aluminum. The new Lincoln Continental uses the Ford modular V-8 for the first time, and this engine contains about 70 lbs of aluminum. The restyled Ford Crown Victoria and Mercury Grand Marquis use aluminum deck lids. Aluminum wheels are standard equipment on more cars from all manufacturers and are also popular options. Also of note is the Ford test fleet of 20 Mercury Sables designed with aluminum body structures and body panels. These vehicles weigh about 400 lbs less than the production Sable and are being evaluated extensively in a 42-month program with a number of organizations at a variety of locations.

PM connecting rods are approaching universal application in U.S. production spark ignition engines. New for MY

1995 are PM connecting rods for the Ford Duratec V-6, 3.8 L V-6, and the modular V-8 for the Lincoln Continental. Chrysler uses PM for the connecting rods of the 2 and 2.4 L engines, and GM added PM rods to the Aurora and Northstar Premium V engines which completes GM's conversion to PM connecting rods. GM also used PM gears for the parking brake of its new 4-speed automatic transmission for small cars.

The GM Aurora V-8 engine uses magnesium camshaft covers, baffles, and oil filter adapters for MY 1995. Ford uses magnesium for some of the seat stanchions for the Windstar minivan. On the experimental side, Chrysler built a light-weight version of the Neon compact car, reducing the weight by 600 lbs. This vehicle employs an aluminum body and engine block but also uses magnesium for seat frames, instrument panel structures, and parts of the steering column.

#### *E. Summary*

The continued availability and low cost of gasoline has encouraged the production and sale of larger, heavier passenger cars and light trucks. The increased popularity of light trucks relative to passenger cars and the popularity of accessories that add weight and draw additional power from the engine have reduced the fuel economy of the vehicles. Nevertheless, there was still progress in improving fuel economy evident in many new model introductions. Much of the improvement was due to innovations in engine technology, but there was also some weight reduction accomplished through more efficient packaging design and the use of lighter or stronger materials.

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BILLING CODE 4910-59-P

[Docket No. 96-11; Notice 2]

#### **Decision that Nonconforming 1990 Porsche 944 S2 2-Door Hatchback Passenger Cars are Eligible for Importation**

**AGENCY:** National Highway Traffic Safety Administration (NHTSA), DOT.

**ACTION:** Notice of decision by NHTSA that nonconforming 1990 Porsche 944 S2 2-door hatchback passenger cars are eligible for importation.

**SUMMARY:** This notice announces the decision by NHTSA that 1990 Porsche 944 S2 2-door hatchback passenger cars not originally manufactured to comply with all applicable Federal motor

vehicle safety standards are eligible for importation into the United States because they are substantially similar to a vehicle originally manufactured for importation into and sale in the United States and certified by its manufacturer as complying with the safety standards (the U.S.-certified version of the 1990 Porsche 944 S2 2-door hatchback), and they are capable of being readily altered to conform to the standards.

**DATES:** This decision is effective May 6, 1996.

**FOR FURTHER INFORMATION CONTACT:** George Entwistle, Office of Vehicle Safety Compliance, NHTSA (202-366-5306).

#### **SUPPLEMENTARY INFORMATION:**

##### **Background**

Under 49 U.S.C. 30141(a)(1)(A) (formerly section 108(c)(3)(A)(i) of the National Traffic and Motor Vehicle Safety Act (the Act)), a motor vehicle that was not originally manufactured to conform to all applicable Federal motor vehicle safety standards shall be refused admission into the United States unless NHTSA has decided that the motor vehicle is substantially similar to a motor vehicle originally manufactured for importation into and sale in the United States, certified under 49 U.S.C. 30115 (formerly section 114 of the Act), and of the same model year as the model of the motor vehicle to be compared, and is capable of being readily altered to conform to all applicable Federal motor vehicle safety standards.

Petitions for eligibility decisions may be submitted by either manufacturers or importers who have registered with NHTSA pursuant to 49 CFR Part 592. As specified in 49 CFR 593.7, NHTSA publishes notice in the Federal Register of each petition that it receives, and affords interested persons an opportunity to comment on the petition. At the close of the comment period, NHTSA decides, on the basis of the petition and any comments that it has received, whether the vehicle is eligible for importation. The agency then publishes this decision in the Federal Register.

LPC of New York, Inc. of Ronkonkoma, New York (Registered Importer R-96-100) petitioned NHTSA to decide whether 1990 Porsche 944 S2 2-door hatchback passenger cars are eligible for importation into the United States. NHTSA published notice of the petition on February 22, 1996 (61 FR 6891) to afford an opportunity for public comment. The reader is referred to that notice for a thorough description of the petition. No comments were received in

response to the notice. Based on its review of the information submitted by the petitioner, NHTSA has decided to grant the petition.

#### **Vehicle Eligibility Number for Subject Vehicles**

The importer of a vehicle admissible under any final decision must indicate on the form HS-7 accompanying entry the appropriate vehicle eligibility number indicating that the vehicle is eligible for entry. VSP-152 is the vehicle eligibility number assigned to vehicles admissible under this decision.

#### **Final Decision**

Accordingly, on the basis of the foregoing, NHTSA hereby decides that a 1990 Porsche 944 S2 2-door hatchback not originally manufactured to comply with all applicable Federal motor vehicle safety standards is substantially similar to a 1990 Porsche 944 S2 2-door hatchback originally manufactured for importation into and sale in the United States and certified under 49 U.S.C. 30115, and is capable of being readily altered to conform to all applicable Federal motor vehicle safety standards.

Authority: 49 U.S.C. 30141 (a)(1)(A) and (b)(1); 49 CFR 593.8; delegations of authority at 49 CFR 1.50 and 501.8.

Issued on: April 30, 1996.

Marilynne Jacobs,

*Director, Office of Vehicle Safety Compliance.*  
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#### **Surface Transportation Board<sup>1</sup>**

[Docket No. AB-57 (Sub-No. 33X)]

#### **Soo Line Railroad Company— Abandonment Exemption—in the Counties of Beltrami, Clearwater, and Polk Counties, MN**

**AGENCY:** Surface Transportation Board.

**ACTION:** Notice of exemption.

**SUMMARY:** Under 49 U.S.C. 10505, the Board exempts from the requirements of

<sup>1</sup> The ICC Termination Act of 1995, Pub. L. No. 104-88, 109 Stat. 803 (the Act), which was enacted on December 29, 1995, and took effect on January 1, 1996, abolished the Interstate Commerce Commission (ICC) and transferred certain functions and proceedings to the Surface Transportation Board (Board). Section 204(b)(1) of the Act provides, in general, that proceedings pending before the ICC on the effective date of that legislation shall be decided under the law in effect prior to January 1, 1996, insofar as they involve functions retained by the Act. This notice relates to a proceeding that was pending with the ICC prior to January 1, 1996, and to functions that are subject to Board jurisdiction pursuant to 49 U.S.C. 10903. Therefore, this notice applies the law in effect prior to the Act, and citations are to the former sections of the statute, unless otherwise indicated.