

The FMCSA published a notice of intent on November 2, 2001 (66 FR 55727), to renew Ford's exemption and renewed the exemption on December 27, 2001 (66 FR 66970). Also on the same day, FMCSA published a Notice of Intent to extend the exemption to additional Ford vehicles of similar design (66 FR 66971). The agency granted that exemption on March 27, 2002 (67 FR 14765).

The chronology for the GM vehicles followed a similar pattern. The vehicles that were the subject of the petition were the G-vans (Chevrolet Express and GMC Savannah) and full size C/K trucks (Chevrolet Silverado and GMC Sierra). In a comment to the docket concerning the Ford petition, dated September 9, 1999, GM stated its support for the agency's preliminary determination and petitioned for the same exemption for its vehicles. On December 20, 1999, the FMCSA published a Notice of Intent to grant GM's application for exemption (64 FR 71186). The agency granted GM's petition on April 26, 2000 (65 FR 24531). The FMCSA published a notice of intent to renew the exemption on December 27, 2001 (66 FR 66972). It was renewed on March 27, 2002 (67 FR 14764).

In addition to the safety regulations published by the FMCSA and the NHTSA, vehicles and internal-combustion engines are subject to environmental protection regulations published by the EPA. In many cases, they are also subject to energy-efficiency regulations published by the Department of Energy (DOE). Occasionally, these regulations published by the EPA or the DOE can have an influence on the safety regulations, as in this case.

#### Related EPA Regulations

The EPA issued four final rules under Title 40 of the CFR relevant to the fuel-tank fill rate issue. Although the EPA rules address the reduction of emissions from vehicle fueling, they are relevant to the FMCSA safety regulations concerning fuel tank fill rates. This is because they place a number of refueling regulatory requirements on various parties. These include: Controls on the dispensing rate of gasoline and methanol from pumps, the rate at which gasoline and methanol fuels can be accepted into the tanks of certain vehicles, the ability of the vehicle fuel systems to safely handle vapors released during fueling, and the ability of the fuel systems to safely prevent any spitback of fuel during the fueling process.

The four EPA rules are: (1) A final rule concerning evaporative emissions

testing and fuel pump dispensing rates, issued March 24, 1993 (58 FR 16002), (2) a final rule concerning on-board refueling vapor recovery (ORVR) systems to control refueling emissions, published in the **Federal Register** on April 6, 1994 (59 FR 16262), (3) a final rule concerning Control of Emissions of Air Pollution From Highway Heavy-Duty Engines, published in the **Federal Register** on October 21, 1997 (62 FR 54693), and (4) a final rule for covering, among other things, on-board refueling vapor recovery (ORVR) systems for heavy-duty vehicles, issued October 6, 2000 (65 FR 59895).

The 1993 rule added § 80.22(j) to Title 40 setting a maximum dispensing rate of 10 gallons (37.9 liters (L)) per minute (/m) for most gasoline and methanol pumps, effective January 1, 1996. Certain facilities with low sales volume were given two additional years to comply. It also added new regulations which address, among other things, the standard for the fuel-dispensing spitback test for 1996 and later model year light-duty vehicles (0–6000 lbs GVWR) (§ 86.096–8), 1996 and later model year light-duty trucks (6,001–8,500 lbs GVWR) (§ 86.096–9), and 1996 and later model year Otto-cycle (standard four-cycle electronic ignition) heavy-duty vehicles (8,501–10,000 lbs GVWR) and engines (§ 86.096–10).

The 1994 rule sets forth additional requirements for controlling vehicle refueling emissions through the use of vehicle-based systems (that is, on-board vapor recovery (ORVR) systems). The requirements are to be phased in beginning with model year 1998 for light-duty vehicles, model year 2001 for light-duty trucks (0–6000 lbs GVWR), and model year 2004 for light-duty trucks (6,001–8,500 lbs GVWR). The 1994 rule carries forward the spitback standard published in 1993, although the EPA provides an alternative assessment procedure that is combined with the ORVR testing requirement.

Although the EPA had proposed that heavy-duty vehicles (8,501–10,000 lbs GVWR) be subject to the same on-board vapor recovery requirements as light-duty vehicles, it decided not to include them in the 1994 final rule. EPA noted that only a small number of heavy-duty vehicles are gasoline powered, and that its final rule would apply to 91 percent of all gasoline-fueled trucks. EPA's spitback and ORVR rules are not applicable to diesel fuels and diesel fueled vehicles because the Reid Vapor Pressure<sup>2</sup> of diesel fuel is very low (e.g.,

less than 1 pound per square inch (psi)) and, thus, spitback and refueling emissions are insignificant.

The EPA 1997 final rule adopted a new emissions standard and related provisions for diesel heavy-duty engines intended for highway operation. The standards affect emission levels and durability of emissions controls. They apply beginning with the 2004 model year.<sup>3</sup>

The EPA final rule concerning control of emissions from highway heavy-duty engines, published October 6, 2000 (65 FR 59896) adopted ORVR standards for model year 2005 and later heavy-duty vehicles (see 40 CFR 86.1816–05(e)). ORVR standards are applicable to all complete heavy-duty vehicles<sup>4</sup> from 8,501 lbs GVWR to 10,000 lbs GVWR. The ORVR standards will be phased in with 80 percent compliance required in 2005 model year vehicles and 100 percent compliance required in 2006 model year and later vehicles.

However, as noted above, EPA requirements on evaporative emissions limit fuel-dispensing rates for gasoline and methanol pumps. The rates may not exceed 10 gpm (37.9 L/m). This action was taken to ensure that vehicles designed to prevent spitback during refueling at 10 gpm would not experience in-use fueling rates beyond the rate they were designed to accommodate. Also, a 10 gpm maximum fuel-dispensing rate is an inherent design parameter for vehicles designed to meet ORVR emission standards. ORVR vehicles that are refueled at dispensing rates above 10 gpm would likely exceed ORVR emissions standards because the vehicle's carbon canister is not designed to adsorb hydrocarbon vapors satisfactorily at these higher dispensing rates.

Retailers and wholesale purchasers-consumers handling over 10,000 gallons (37,854 L) of fuel per month were required to comply with the EPA final rule starting July 1, 1996. Other retailers and wholesale purchasers-consumers were required to comply by January 1, 1998. Any dispensing pump that is dedicated exclusively to heavy-duty

substance in the atmosphere above the solid or the liquid. (Source: <http://chemengineer.miningco.com:80/library/glossary/bldef9050.htm>)

<sup>3</sup> The terms of the Consent Decree that accelerated the compliance date to October 1, 2002 affects engines in diesel-fueled CMVs that are not the subject of this NPRM.

<sup>4</sup> The Clean Air Act defines heavy-duty vehicles as those with a GVWR of greater than 6,000 pounds. However, EPA has classified vehicles between 6,000 and 8,500 pounds GVWR as light-duty vehicles, while treating them as heavy-duty for statutory purposes. See 65 FR 59897 (October 6, 2000), at 59898.

<sup>2</sup> The pressure exerted by a vapor in equilibrium with the solid or liquid phase of the same substance. Also, the partial pressure of the