Flexibility in Meeting Tier 2 Standards

Over the last several months, the U.S. Environmental Protection Agency (EPA) has worked closely with the automobile and fuel industries in the development of the proposed tailpipe emission and sulfur standards. As a result, the proposed new standards can be achieved with maximum flexibility and cost-effectiveness. When implemented, this unprecedented flexibility in meeting the standards will ensure that Americans can have cleaner air as well as the vehicle choices they desire.

**Flexibilities for Fuels**

**Averaging**
The nation’s refiners and importers of gasoline would have the flexibility to manufacture gasoline within a range of sulfur levels as long as their annual average sulfur levels are 30 parts per million (ppm). Also, the maximum amount of sulfur in gasoline, for purposes of averaging, would be capped at 80 ppm.

**Special consideration for small refiners**
Small refiners (defined in the proposal as those who employ no more than 1,500 employees) would have until 2008 to comply with the proposed sulfur standards. If necessary, small refiners that demonstrate a severe economic hardship could apply for an additional extension of up to two years.

**Credits—Banking and Trading**
To lower cost and reward industry leaders, any refiner/importer of gasoline would be allowed to generate, bank, and trade sulfur credits that they
could either use in a later year or sell to another refiner. Banking and early reductions provide an incentive for technological innovation and early implementation of new refining technology.

This provides flexibility for refiners because they could either use credits generated at one refinery to delay having to desulfurize gasoline from another refinery or sell credits to another.

- Prior to 2004, refiners could generate credits for fuel containing less than 150 ppm sulfur. These credits could be used between 2004 and 2006.
- Before or after 2004, refiners that go beyond the standard and produce gasoline containing less than 30 ppm sulfur could also generate credits.

### Flexibility for Vehicles

#### Averaging

Automakers would have the flexibility to manufacture a range of vehicles emitting 0.00 grams per mile (gpm) to 0.2 gpm as long as the average amount of oxides of nitrogen (NOx) emitted per mile across the manufacturer’s fleet remains at 0.07 gpm.

Most vehicles would need to certify at Tier 2 levels by 2007, leaving the largest vehicles with an additional two years to meet the 0.07 gpm standard.

#### Phase-In for Cars and Smaller SUVs, Minivans, and Pick-Up Trucks (less than 6000 lbs)

This phase-in period for the new standard would begin with model year 2004 when 25 percent of new vehicles in a manufacturer’s fleet would have to average 0.07 gpm (the remaining 75 percent would have to meet an average of 0.3 gpm). Correspondingly, 50 percent of the vehicles in a manufacturer’s fleet would comply with the 0.07 gpm average in 2005, 75 percent in 2006 and 100 percent in 2007. The 0.07 standard is a 77-86 percent reduction from the previous NOx standard for the vehicles in this weight category.

#### Phase-In for Larger SUVs, Vans, and Pick-Up Trucks (between 6000 and 8500 lbs)

Beginning in 2004, larger vehicles would not be able to emit more than 0.6 gpm NOx at any time. Also, in 2004, 25 percent of these vehicles in a manufacturer’s fleet would have to meet a 0.2 gpm average, 50 percent in
2005, 75 percent in 2006, and 100 percent in 2007. The 0.2 standard is a 80-87 percent reduction from the previous standard for these vehicles.

In 2008, 50 percent of all large vehicles in a manufacturer’s fleet would have to meet the 0.07 gpm average, and the remaining 50 percent would have to comply in 2009. The 0.07 standard is a 65 percent reduction from the 0.2 standard and a 92-95 percent reduction from the previous NOx standard for these vehicles.

**Credits—Banking and Trading**
To lower cost and reward industry leaders, manufacturers could obtain additional credits for later use as early as 2001 for vehicles produced at or below the 0.07 gpm NOx standard. Also, automakers whose fleet average is below 0.07 gpm could generate credits that they could either use in a later model year or sell to another manufacturer.

**For More Information**
Additional documents on the Tier 2 proposed rule are available electronically from the EPA Internet server at:

http://www.epa.gov/oms/tr2home.htm

Document information is also available by writing to:

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