

highway purposes until 2010. As such, adopting the same 500 ppm level for NRLM helps to avoid any issues and costs associated with more grades of fuel in the distribution system during this initial step of the program. The reduction to 500 ppm is also significant environmentally. The 500 ppm level achieves approximately 90 percent of the sulfate PM and SO₂ benefits otherwise achievable by going all the way to 15 ppm. Yet, the costs would be roughly half that associated with full control down to 15 ppm. Because this first step is only to 500 ppm, it also allows for a short lead time for implementation, enabling the environmental benefits to begin accruing as soon as possible. After careful analysis of feasibility as discussed in section IV.F.5, we believe that the proposed start date of June 1, 2007, is the earliest that the 500 ppm step could take effect.

To allow for the enforcement of the proposed fuel standards while at the same time allowing for a smooth and orderly transition of diesel fuel in the distribution system to 500 ppm, we are proposing that parties downstream of the refineries be allowed time to turnover their NRLM tanks to 500 ppm. We are proposing that at the terminal level, NRLM diesel fuel would be required to meet the 500 ppm sulfur standard beginning August 1, 2007. At bulk plants, wholesale purchaser-consumers, and any retail stations carrying NRLM diesel, this fuel would have to meet the 500 ppm sulfur standard by October 1, 2007.²³² The only exceptions to these dates would be for high sulfur NRLM produced under the hardship and fuel credit provisions discussed below in sections IV.B. and C.²³³

This downstream turnover schedule is slightly more relaxed than for the second step to 15 ppm discussed below. This first step down to 500 ppm is designed to achieve the public health and welfare benefits from reduced emissions in the current fleet of engines.

²³² A bulk plant is a secondary distributor of refined petroleum products. They typically receive fuel from terminals and distribute fuel in bulk by truck to end users. Consequently, while for highway fuel, bulk plants often serve the role of a fuel distributor, delivering fuel to retail stations, for nonroad fuel, they often serve the role of the retailer, delivering fuel directly to the end-user.

²³³ Furthermore, as discussed in subsection B, we propose that high sulfur nonroad diesel fuel which is produced after June 1, 2007 due to the small refiner and fuel credit provisions could be commingled with 500 ppm nonroad diesel fuel after it has been dyed to the IRS specifications. Thus, at some points in the distribution system, nonroad fuel higher than the 500 ppm standard would remain until it is precluded from production beginning June 1, 2010.

Since the sulfate PM and SO₃ benefits accrue as the fuel is desulfurized to any degree, mixing in the distribution system during the transition to 500 ppm would not reduce this benefit or cause any adverse consequences. Mixing in the distribution system would also not reduce the engine performance and durability benefits from the reduction in sulfur. As a result, the immediate turnover of the fuel pool downstream of the refinery gate is of less concern and a more relaxed schedule than described below for the second step is possible. We seek comment on this proposed schedule.

b. The Second Step to 15 ppm

In order to enable the application of high efficiency exhaust emission control technologies to nonroad diesel engines beginning with the 2011 model year, we are proposing that all nonroad diesel fuel produced or imported after June 1, 2010, would have to meet a 15 ppm sulfur cap. We are proposing that diesel fuel used for locomotive and marine diesel engines could continue to the meet the 500 ppm cap first applicable in 2007.

In order to allow for a smooth and orderly transition of diesel fuel in the distribution system to 15 ppm, we are proposing that parties downstream of the refineries be allowed some additional time to turnover their tanks to 15 ppm. We are proposing that at the terminal level, nonroad diesel fuel would be required to meet the 15 ppm sulfur standard beginning July 15, 2010. At bulk plants, wholesale purchaser-consumers, and any retail stations carrying nonroad diesel, this fuel would have to meet the 15 ppm sulfur standard by September 1, 2010. The proposed transition schedule for compliance with the 15 ppm standard at refineries, terminals, and secondary distributors is the same as that allowed under the recently promulgated highway diesel fuel program.

As with the 500 ppm standard, refiners and importers could comply with this standard by either physically producing 15 ppm fuel or by obtaining sulfur credits, as described below.

We are seriously considering bringing the sulfur level of locomotive and marine diesel fuel to 15 ppm as early as June 1, 2010, along with nonroad diesel fuel. As discussed in more detail in section VI and in chapter 12 of the draft RIA, there are several advantages associated with this alternative. First, it would provide important sulfate PM and SO₃ emission reductions and the estimated benefits from these reductions would outweigh the costs by a considerable margin. Second, it would

simplify the fuel distribution system and the design of the fuel program proposed today. Third, it would help reduce the potential opportunity for misfueling of 2007 and later model year highway vehicles and 2011 and later model year nonroad equipment with higher sulfur fuel. Finally, it would allow refiners to coordinate plans to reduce the sulfur content of all of their nonroad diesel fuel at one time.

However, discussions with refiners have suggested there are advantages to leaving locomotive and marine diesel fuel at 500 ppm, at least in the near-term and until we set more stringent standards for those engines. The locomotive and marine diesel fuel markets could provide a market for off-spec product which is important for refiners, particularly during the transition to 15 ppm for highway and nonroad diesel fuel in 2010. Waiting just a year or two beyond 2010 would address the critical near term needs during the transition. Second, waiting just another year or two beyond 2010 is also projected to allow virtually all refiners to take advantage of the new lower cost technology.

In addition to seeking comment on whether to apply the 15 ppm standard to locomotive and marine diesel fuel in 2010, we also seek comment on other timing for doing so, and especially on how the Agency should coordinate a 15 ppm standard for locomotive and marine with the nonroad diesel fuel standard being proposed today. It is the Agency's intention to propose in the near future new emission standards for locomotive and marine engines that could require the use of high efficiency exhaust emission control technology, and thus, also require the use of 15 ppm sulfur diesel fuel. We anticipate that such engine standards would likely take effect in the 2011–13 time frame, requiring 15 ppm locomotive and marine diesel fuel in the 2010–12 time frame. We intend to publish an advanced notice of proposed rulemaking (ANPRM) for such a rule in the Spring of 2004 and complete action on a final rule by 2007.

c. Other Standard Provisions

We are proposing that the 500 ppm NRLM and 15 ppm nonroad diesel fuel standards would apply to the areas of Alaska served by the Federal Aid Highway System (FAHS). Rural areas, those outside the FAHS, would not be subject to either the 15 or 500 ppm standards. Market forces in these areas would be relied upon to provide 15 ppm diesel fuel for 2011 and later nonroad diesel engines used in these areas. This is consistent with the approach which is