

to apply the second step of sulfur control of 15 ppm to locomotive and marine diesel fuel at this time. Nevertheless, for the reasons described above, we are carefully weighing whether it would be appropriate to do so. Therefore, we seek comment on this alternative and the various advantages, disadvantages, and implications of it.

D. Other Alternatives

We have also analyzed a number of other alternatives, as summarized in Table VI-1. Some of these focus on control options more stringent than our proposal while others reflect modified engine requirements that result in less stringent control. EPA has evaluated these options in terms of the feasibility, emissions reductions, costs, and other relevant factors. EPA believes the proposed approach is the proper one with respect to these factors, and believes the options discussed above while having possible merit in some areas, raise what we believe are different and significant concerns with respect to these factors compared to the proposed approach. Hence we did not include these options. These concerns are discussed in more detail in Chapter 12. These concerns are discussed in more detail in Chapter 12 of the draft RIA. Hence, we did not include these options as part of our proposal for nonroad fuel and engine controls. We are interested in comment on these alternatives, especially information regarding their feasibility, costs, and other relevant concerns.

VII. Requirements for Engine and Equipment Manufacturers

This section describes the regulatory changes proposed for the engine and equipment compliance program. First, the proposed regulations for Tier 4 engines have been written in plain language. They are structured to contain the provisions that are specific to nonroad CI engines in a new proposed part 1039, and to apply the general provisions of existing parts 1065 and 1068. The proposed plain language regulations, however, are not intended to significantly change the compliance program, except as specifically noted in today's notice (and we are not soliciting comment on any part of the rule that remains unchanged substantively). As proposed, these plain language regulations would only apply for Tier 4 engines. The changes from the existing nonroad program are described below along with other notable aspects of the compliance program.

A. Averaging, Banking, and Trading

1. Are We Proposing To Keep the ABT Program for Nonroad Diesel Engines?

EPA has included averaging, banking, and trading (ABT) programs in most mobile source emission control programs adopted in recent years. Our existing regulations for nonroad diesel engines include an ABT program (§ 89.201 through § 89.212). We are proposing to retain the basic structure of the existing nonroad diesel ABT program with today's notice, though we are proposing a number of changes to accommodate implementation of the proposed emission standards. Behind these changes is the recognition that the proposed standards represent a major technological challenge to the industry. The proposed ABT program is intended to enhance the ability of engine manufacturers to meet the stringent standards proposed today. The proposed program is also structured to limit production of very high-emitting engines and to avoid unnecessary delay of the transition to the new exhaust emission control technology.

We view the proposed ABT program as an important element in setting emission standards that are appropriate under CAA section 213 with regard to technological feasibility, lead time, and cost. The ABT program helps to ensure that the stringent standards we are proposing are appropriate under section 213(a) given the wide breadth and variety of engines covered by the standards. For example, if there are engine families that will be particularly costly or have a particularly hard time coming into compliance with the standard, this flexibility allows the manufacturer to adjust the compliance schedule accordingly, without special delays or exceptions having to be written into the rule. Emission-credit programs also create an incentive (for example, to generate credits in early years to create compliance flexibility for later engines) for the early introduction of new technology, which allows certain engine families to act as trailblazers for new technology. This can help provide valuable information to manufacturers on the technology before they apply the technology throughout their product line. This early introduction of clean technology improves the feasibility of achieving the standards and can provide valuable information for use in other regulatory programs that may benefit from similar technologies. Early introduction of such engines also secures earlier emission benefits.

In an effort to make information on the ABT program more available to the public, we intend to issue periodic

reports summarizing use of the proposed ABT program by engine manufacturers. The information contained in the periodic reports would be based on the information submitted to us by engine manufacturers, and summarized in a way that protects the confidentiality of individual engine manufacturers. We believe this information will also be helpful to engine manufacturers by giving them a better indication of the availability of credits. Again, our periodic reports would not contain any confidential information submitted by individual engine manufacturers, such as sales figures. Also, the information would be presented in a format that would not allow such confidential information to be determined from the reports.

2. What Are the Provisions of the Proposed ABT Program?

The following section describes the changes proposed to the existing ABT program. In addition to those areas specifically highlighted, we are soliciting comments on all aspects of the proposed ABT changes, including comments on the need for and benefit of these changes to manufacturers in meeting the proposed emission standards.

The ABT program has three main components. Averaging means the exchange of emission credits between engine families within a given engine manufacturer's product line. (Engine manufacturers divide their product line into "engine families" that are comprised of engines expected to have similar emission characteristics throughout their useful life.) Averaging allows a manufacturer to certify one or more engine families at levels above the applicable emission standard, but below a set upper limit. However, the increased emissions must be offset by one or more engine families within that manufacturer's product line that are certified below the same emission standard, such that the average emissions from all the manufacturer's engine families, weighted by engine power, regulatory useful life, and production volume, are at or below the level of the emission standard. (The inclusion of engine power, useful life, and production volume in the averaging calculations is designed to reflect differences in the in-use emissions from the engines.) Averaging results are calculated for each specific model year. The mechanism by which this is accomplished is certification of the engine family to a "family emission limit" (FEL) set by the manufacturer, which may be above or below the standard. An FEL that is established