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Office of Mobile Sources

Regulatory Announcement

An Overview of the Baseline Adjustment Final Rulemaking

The Environmental Protection Agency (EPA) recently promulgated the Baseline Adjustment Final Rulemaking. This rule modifies the baseline adjustment provisions of the December 1993 final reformulated gasoline (RFG) and anti-dumping regulations. Specifically, this rule provides relief in the form of baseline adjustments for refiners who meet certain criteria and who would experience extreme economic burden without such relief. In spite of these adjustments, the environmental impact of this rule is negligible. Such negligible environmental impact is commonly referred to as de minimis in the regulations.

Background

Under the Clean Air Act as amended in l99O, EPA promulgated "anti-dumping" regulations for conventional gasoline (gasoline not certified as reformulated gasoline). These regulations state that conventional gasoline cannot be more polluting than it was in 1990.

The anti-dumping regulations also include provisions for the development of individual refinery "baselines." Specifically, an individual refinery baseline is the set of fuel parameter values and emissions values which represent the quality and quantity of a refiner's 1990 gasoline. A refiner's individual baseline is the reference point against which changes in post-1994 gasoline composition are compared. Additionally, the regulations include provisions that allow a refiner to obtain an adjusted baseline under certain limited circumstances.

The Baseline Adjustment Rule

The baseline adjustment rule contains modified requirements for obtaining one baseline adjustment and specifies the requirements of two new baseline adjustments.

First, the rule modifies requirements for refiners who produced a specific type of jet fuel in 1990.

Second, the rule provides a baseline adjustment for certain refiners who used extremely sweet crude oil (crude oil relatively low in sulfur) in the production of gasoline in 1990, and for whom such crude oil is no longer available.

Finally, this rule establishes a baseline adjustment for refineries that have extremely low baseline values for both sulfur and olefins.

JP-4 Baseline Adjustment

In 1990, certain refiners produced JP-4 jet fuel under contract with the U.S. Department of Defense. Now, however, this fuel is being phased out by the Defense Department. To compensate for this change in product demand, most producers of JP-4 are transferring the feedstocks for JP-4 production to gasoline production. These feedstocks must be upgraded to be used in gasoline. This upgrade, which boosts the octane of the feedstocks, causes a subsequent increase in a refiner's toxic emissions relative to its individual baseline.

For certain refiners who produced significant quantities of JP-4 in 1990, the burden of complying (via refinery chances or other measures) with an individual baseline, given the increased toxics emissions, is severe, and could cause them to cease operations.

The JP-4 baseline adjustment reduces the regulatory burden of the anti-dumping program for those refiners who produced JP-4 jet fuel in 1990 and who meet certain criteria. These criteria have been modified from the original rule to allow more producers of JP-4 to qualify for an adjustment.

Low Sulfur Crude Baseline Adjustment

Since 1990, a few refiners, particularly those in certain Rocky Mountain states, have experienced dramatic increases in the sulfur content of the crude oil available to them. Such increases generally lead to increases in gasoline sulfur content which, in turn, result in increased vehicle emissions. For these refiners, compliance with their individual baselines, in the face of increasing crude sulfur levels, could be economically devastating.

The low sulfur crude baseline adjustment reduces the regulatory burden of the anti-dumping program for those refiners who have very low baseline sulfur levels and whose access to alternative crude supplies is geographically limited. Other criteria specified in the rule must also be met to ensure that only economically distressed refineries receive the adjustment and that the environmental impact of allowing the adjustments is de minimis.

Low Sulfur and Low Olefins Baseline Adjustment

A few refiners have extremely low baseline levels of both sulfur and olefins. Low levels of these fuel parameters can cause compliance difficulties for these refiners since both fuel parameters affect oxides of nitrogen (NOx) emissions. Although other refiners may be able to offset emissions increases from one parameter by changing other parameters, refiners with low levels of multiple fuel parameters, such as sulfur and olefins, have very limited maneuverability.

Compliance with the anti-dumping requirements depends on specific fuel parameter test results. For very low baseline values of fuel components, errors in lab analysis, sample contamination, or equipment accuracy can incorrectly result in measured fuel parameter values which are greater than the baseline values. Such results could hinder a refiner's compliance with the annual-averaged limits on sulfur and olefin values for both the RFG and antidumping programs.

The low sulfur and low olefins baseline adjustment reduces the regulatory burden of the antidumping program for those refiners who have very low baseline values for both sulfur and olefins. Qualifying refiners will have more maneuverability about their baselines and more flexibility in regard to the annual averaging of fuel parameters.

Environmental Impact

EPA expects a negligible environmental impact from allowing baseline adjustments under the criteria of this rule because only a few refiners are expected to qualify for the adjustments (about 16) and the amount of gasoline they produce is small (less than 3 percent of annual U.S. production).

Estimates made using the Complex Model (a mathematical compliance model) show less than a 0.1 percent increase in NOx emissions, and less than a 1 percent increase in exhaust toxics emissions due to these baseline adjustments.

For Further Information

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Additional documents on this final rule and RFG are available electronically from the EPA Internet server at:

http://www.epa.gov/OMS/fuels.htm