

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 80

[AMS-FRL-5696-2]

Regulation of Fuels and Fuel Additives: Adjustments to Individual Baselines for the Reformulated Gasoline and Anti-Dumping Programs

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rulemaking.

SUMMARY: Under the Clean Air Act (CAA or the Act), as amended in 1990, the Environmental Protection Agency (EPA or the Agency) promulgated anti-dumping regulations for conventional gasoline, that is, gasoline not certified as reformulated gasoline (RFG). These regulations require that conventional gasoline not be more polluting than it was in 1990. They also include provisions for the development of individual refinery baselines. The regulations also include provisions which allow a refinery to obtain an adjusted baseline under certain, limited circumstances. Today's regulations modify the requirements of one baseline adjustment and specify the requirements of two new baseline adjustments.

Specifically, today's rulemaking modifies the requirements for obtaining a baseline adjustment due to the production of JP-4 jet fuel in 1990. This rule also allows a baseline adjustment for refiners who are now unable to acquire extremely sweet crude oil (that is, crude oil relatively low in sulfur) that had been available in 1990 and from which the gasoline used to develop a 1990 individual baseline was obtained. Finally, this rule allows a baseline adjustment for refineries which have both extremely low baseline sulfur and olefin levels.

The criteria for obtaining any baseline adjustment are stringent. As a result, only those refineries which would experience a severe economic burden due to the regulations are allowed the relief provided by a baseline adjustment. Since few refineries qualify for these adjustments and requiring compliance without a baseline adjustment would be of minimal benefit to the environment, the environmental impact of allowing the baseline adjustments is negligible.

DATES: This rule will be effective on April 22, 1997.

ADDRESSES: Materials relevant to this final rulemaking (FRM) are contained in Public Docket No. A-95-03. Materials

relevant to the RFG final rule are contained in Public Dockets A-91-02 and A-92-12. These dockets are located at Room M-1500, Waterside Mall (ground floor), U.S. Environmental Protection Agency, 401 M Street SW., Washington, DC 20460. The docket may be inspected from 8:00 a.m. until 5:30 p.m. Monday through Friday. A reasonable fee may be charged by EPA for copying docket materials.

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I. Electronic Copies of Rulemaking Documents

A. Technology Transfer Network Bulletin Board System (TTNBBS)

An electronic copy of this notice is available on the EPA's Office of Air Quality Planning and Standards (OAQPS) Technology Transfer Network Bulletin Board System (TTNBBS). The

service is free of charge, except for the cost of the phone call. The TTNBBS can be accessed via a phone line and a high-speed modem per the following information:

TTNBBS: 919-541-5742

(1200-14400 bps, no parity, 8 data bits, 1 stop bit)

Voice Help-line: 919-541-5384

Off-line: Mondays from 8:00 AM to 12:00 Noon ET

A user who has not called TTN previously will first be required to answer some basic informational questions for registration purposes. After completing the registration process, proceed through the following menu choices from the top menu to access information on this rulemaking.

<T> GATEWAY TO TTN TECHNICAL AREAS (Bulletin Boards)

<M> OMS—Mobile Sources Information

<K> Rulemaking and Reporting

<3> Fuels

<9> File Area #9 * * * Reformulated

gasoline

At this point, the system will list all available files in the chosen category in reverse chronological order with brief descriptions. These files are compressed (i.e., ZIPped). Today's notice can be identified by the following title: JP4FRM.ZIP. To download this file, type the instructions below and transfer according to the appropriate software on your computer:

>D>ownload, <P>rotocol, <E>xamine, <N>ew, <L>ist, or <H>elp Selection or <CR> to exit: D filename.zip

You will be given a list of transfer protocols from which you must choose one that matches the terminal software on your own computer. The software should then be opened and directed to receive the file using the same protocol. Programs and instructions for de-archiving compressed files can be found via <S>ystems Utilities from the top menu, under <A>rchivers/de-archivers. After you have downloaded the desired files, you can quit the TTNBBS with the <G>oodbye command. Please note that due to differences between the software used to develop the document and the software to which the document is downloaded, changes in page format may occur.

B. Internet

Rulemaking documents can also be located on the Internet as follows:

World Wide Web

<http://www.epa.gov/omswww>

Telnet

telnet ttnbbs.rtpnc.epa.gov

FTP

ftp://ftp.epa.gov

Then change the directory (CD) to /pub/
gopher/OMS/**Gopher**gopher://gopher.epa.gov:70/11/Offices/
Air/OMSAlternatively, go to the main EPA
gopher and follow the menus:
gopher.epa.govEPA Offices and Regions
Office of Air and Radiation
Office of Mobile Sources**II. Regulated Entities**

Entities that could be regulated by this action are those that produced gasoline in 1990 and which have an individual baseline per part 40 section 80.91 of the Code of Federal Regulations (CFR). Regulated categories and entities include:

Category	Examples of regulated entities
Industry	Oil refineries.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. This table lists the types of entities that EPA is now aware could potentially be regulated by this action. Other types of entities not listed in the table could also be regulated. To determine whether your facility is regulated by this action, you should carefully examine the applicability criteria at 40 CFR 80.91. If you have questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

III. Introduction

The standards that a refiner must comply with for certain aspects of the reformulated and conventional gasoline regulations are based on the refiner's individual baseline.¹ An individual baseline is the set of fuel parameter values, emissions values, and component volumes which represent the quality and quantity of the refiner's 1990 gasoline. (See 40 CFR 80.91.) EPA's regulations establish requirements for developing an individual baseline. For special situations, the Agency has allowed the baseline fuel parameters, emissions values, and component volumes to be

¹In general, the anti-dumping provisions apply to refiners or importers of conventional gasoline. The baseline adjustment provisions finalized in today's notice, however, are applicable only to refiners and their refineries.

adjusted. Such situations have included unforeseen downtime of a gasoline blendstock producing unit, non-annual maintenance, work-in-progress, and JP-4 jet fuel production.

This FRM allows baseline adjustments for three situations where parties would suffer an extreme economic burden due to the original regulations if relief were not granted. Specifically, this rule (1) Revises the requirements for a baseline adjustment due to the production of JP-4 jet fuel in 1990, (2) provides an adjustment to the baseline sulfur values of certain refineries for instances where extremely sweet crude oil (which is no longer available) was used in 1990 gasoline production, and (3) adds a provision for adjusting refinery baselines which have very low values for both sulfur and olefins.

In general, for refiners who qualify for one or more of the baseline adjustments finalized today, EPA will apply the adjustments to gasoline produced in 1996. In the August 1995 Notice of Proposed Rulemaking (NPRM) EPA indicated that any adjustments finalized under this rulemaking would apply to a refiner's 1995 compliance determination. However, EPA cannot retroactively apply a rulemaking, even one that provides a measure of regulatory relief. Many refiners affected by today's rule received baseline adjustments under the stay promulgated at 60 FR 40006 (August 4, 1995). Because these refiners have the same adjusted baseline under the stay that they would receive as a result of today's action, they are unaffected by whether or not today's rule applies to 1995 compliance determinations. For those refiners who did not receive an adjusted baseline, EPA will consider this rule in its review of 1995 compliance determinations.

IV. JP-4 Baseline Adjustment**A. Introduction**

JP-4 jet fuel, the use of which is being phased out by the U.S. Department of Defense, was produced in 1990 by many refiners under contract with the Defense Department. Because refineries will most likely use the JP-4 blendstock in gasoline, the JP-4 fuel must first be processed through a reformer to increase its octane to suitable gasoline levels. Due to the high aromatic content of the reformer streams, the toxic emissions of the "new" gasoline (calculated using the Simple and Complex Models) will likely increase relative to the gasoline's 1990 values. In addition, it is possible that gasoline production will increase (relative to 1990 production) due to

movement of blendstocks directly and indirectly from JP-4 to gasoline. The impact of the increase in aromatic content and/or additional volume due to JP-4 phase-out will affect certain refiners more than others.

The December 1993 regulations² already provide for an adjustment to a refiner's individual baseline due to production of JP-4 in 1990 if three criteria are met. These criteria were designed to ensure that the original adjustment would result in de minimis environmental impact and would remove the extreme burden on the refiner.³ First, under the original adjustment, JP-4 baseline adjustments are allowed only for refiners who do not or will not in the future produce RFG. If a refiner granted such an adjustment subsequently produces RFG, its conventional gasoline compliance will be subject to its original unadjusted baseline during the current averaging period and all subsequent years. Second, a JP-4 baseline adjustment is available primarily to qualifying single-refinery refiners. A multi-refinery refiner could also receive an adjustment if each of its refineries produced JP-4 in 1990 and if each refinery also meets the other requirements for obtaining the adjustment. Third, to receive an adjustment, the refiner is required to show that a significant burden would exist if no baseline adjustment was allowed. The original regulations require that the ratio of a refinery's 1990 JP-4 production to its 1990 gasoline production must equal or exceed 0.5 in order to be defined as a significant burden on the refiner.

In the August 4, 1995 NPRM (60 FR 40009), EPA proposed modified provisions related to JP-4 baseline adjustments. These provisions were essentially the same as those contained in a direct final rulemaking (DFRM) which was published at 59 FR 36944, July 20, 1994.⁴ Specifically, EPA proposed the following three conditions that would have to be met by a refiner who petitions for a baseline adjustment due to JP-4 production in 1990. The first condition applies to multi-refinery refiners while the second and third

²59 FR 7716, February 16, 1994.

³Alabama Power Company vs. Costle, 636 F.2d 323-357 (D.C. Cir. 1979).

⁴EPA withdrew this DFRM since EPA received adverse comments on the changes specified in the DFRM with regard to JP-4 baseline adjustments. As announced in the DFRM, such provisions would take effect only if no persons submitted adverse comments or requested an opportunity to comment. For more discussion, see the support document, "Regulation of Fuels and Fuel Additives: Standards for Reformulated and Conventional Gasoline—Detailed Discussion and Analysis", Air Docket A-95-03.

conditions apply to all refining companies.

(1) The Qualifying Refiner Must Have Produced JP-4 at One or More of Its Refineries in 1990

The original JP-4 baseline adjustment provisions for multi-refinery refiners require that each refinery must have produced JP-4 in 1990. This revision would allow a refiner to obtain this baseline adjustment even if only one of its refineries produced JP-4 in 1990 (and if the refiner and its refineries also meet the other criteria specified for this baseline adjustment). EPA believes it may use its discretion to provide relief for a multi-refinery refiner even if only one of the refiner's refineries produced JP-4 in 1990 (provided that the refiner or refinery meets the other requirements required for a JP-4 baseline adjustment). If a multi-refinery refiner qualifies for a baseline adjustment under this criterion, it must then calculate the adjusted baseline of the refinery(ies) which actually produced JP-4 in 1990 and determine its anti-dumping compliance on an aggregate basis.

(2) The Qualifying Refiner Must Have a 1990 JP-4 to Gasoline Ratio Greater Than or Equal to 0.15 (See Discussion Below Regarding JP-4 Baseline Adjustment Ratio)

(a) For each individual refiner, if all of its refineries produced JP-4 in 1990, the refiner may comply with the anti-dumping requirements on an individual or aggregate basis; or

(b) On a refiner-wide basis, in which case the refiner must determine an individual baseline for each of its refineries but must comply with the anti-dumping requirements on an aggregate basis.

(3) The Qualifying Refiner Must Not Produce Reformulated Gasoline (RFG) at Any of Its Refineries Now or in the Future

The comments received on this proposal are discussed below. None of the comments provided new information or supportive data. Therefore, EPA today finalizes this provision as proposed, for the reasons described in the NPRM.

B. General Comments on the Proposal

Summary of Comments

Generally, many commenters felt the original eligibility requirements for receiving a JP-4 baseline adjustment are unnecessarily restrictive. They felt that EPA's overriding concern should be the impact of the baseline adjustments on the environment, and they suggested that most refineries meeting the JP-4

criteria operate in rural, clean air (i.e., attainment) areas.

Several commenters opposed the regulation change, stating that it would be more equitable for all JP-4 producers to get an adjustment, regardless of ratio, aggregation, or RFG production. Commenters stated that this position is based on the fact that all JP-4 producers were meeting a market demand, and therefore should not be selectively penalized. Furthermore, these commenters felt that elimination of post-1995 demand for JP-4 causes all baselines to be unrepresentative of current and future operations. Therefore the JP-4 phase-out and anti-dumping regulations may have unintended adverse effects on the regulated community of former JP-4 suppliers. These commenters suggested that a better approach would be to allow an adjustment for all JP-4 producers, and allow refiners to rethink aggregation decisions. The commenters felt this would "level the playing field" and simplify the regulations.

Analysis and Conclusion

EPA's authority to grant exceptions to this requirement of the CAA is very limited. EPA does not believe it is appropriate, given the applicable facts and this limitation, to allow adjustments for all JP-4 producers. Exceptions to this requirement of the Act should only be allowed for cases of extreme regulatory burden with minimal environmental impact, and not all refiners who produced JP-4 in 1990 are extremely burdened by the requirements of the RFG and anti-dumping programs. Today's action slightly broadens the JP-4 baseline adjustment criteria, but continues to allow adjustment only where extreme burden is demonstrated.

C. Comments on the Proposed Ratio of JP-4 Production to Gasoline Production

Summary of Comments

Some commenters opposed the change in production ratio to 0.15, stating that the 0.15 ratio is arbitrary and that EPA has provided no evidence of hardship for the three or four refineries which would be affected. One commenter felt that if the environmental impacts are minimal at 0.15, they would be even less for those below the 0.15 production ratio. They stated that as little as two percent JP-4 production can be a significant aspect of refining operations; adjusting for production, this low percentage may have little impact on the baseline but would provide necessary relief for refiners who have experienced increasing levels of benzene and aromatics. Commenters

also felt that refineries on the "wrong side" of the ratio will continue to argue for special exemptions; any ratio arbitrarily provides relief to some while denying it to others.

Commenters also stated that it is impossible for the public to judge whether a hardship even exists. They felt that the ratio criterion is only one of several criteria which should be used to determine hardship. They argued that the regulation should not be limited to just one criterion, but rather it should include alternative tests for hardship. Several alternative criteria for determining hardship were suggested by commenters. One commenter suggested that EPA should evaluate the financial penalty of noncompliance relative to the refiner's size and profit to determine extreme burden. One commenter proposed that a straight production volume of 100,000 gallons of JP-4, rather than a jet fuel-to-gasoline production ratio, would be a more appropriate baseline adjustment criterion. In addition, commenters suggested that EPA should consider the historical pattern of JP-4 production for a refinery, stating that a refinery that produces JP-4 over a long period will have greater hardship converting that product to gasoline.

Finally, it was suggested that EPA needs to recognize that the industry is capital-intensive and that refineries should be encouraged to make the necessary capital investments.

Analysis and Conclusion

As stated before, in addition to minimal environmental impact, regulatory burden must also be considered before an exception to the regulations can be made, and a baseline adjustment allowed. As discussed in the December 1993 Regulatory Impact Analysis (RIA), the JP-4 to gasoline production ratio is the best measure found by EPA to estimate and quantify this burden. However, based on information received by EPA subsequent to the initiation of the RFG program, the original 0.5 ratio does not provide the relief intended by the Agency. Using industry data, EPA proposed a more appropriate ratio of 0.15, and stated that a few more (three or four) refineries could potentially benefit from this change in the ratio. Although EPA agrees with commenters that other means of showing extreme burden of the regulations may exist, EPA has not found any which seem as appropriate (particularly with respect to providing a quantitative means of establishing burden). Additionally, EPA believes that such alternative tests would be difficult to implement at this

stage in the baseline approval process. Finally, EPA believes that limiting this analysis to 1990 situations is most consistent with statutory structure.

D. Comments on the Aggregation and RFG Production Restrictions

In the August 1995 NPRM, EPA proposed that a multi-refinery refiner, could qualify for a JP-4 baseline adjustment even if only one of its refineries produced JP-4 in 1990. However, that refiner would have to determine its compliance on an aggregate basis and could produce no RFG at any of its refineries. A detailed discussion of the basis of these requirements can be found in the support document for this rule, "Regulation of Fuels and Fuel Additives: Standards for Reformulated and Conventional Gasoline-Detailed Discussion and Analysis," Air Docket A-95-03.

Summary of Comments

Commenters supporting the proposed modifications to the regulation provided several points to support the changes. Primarily, they stated that without these changes, it would be impossible for a multi-refinery refiner to qualify for an adjustment. Thus, according to commenters, the regulation would not provide the relief intended by EPA. Some commenters supporting the proposed changes to the regulation endorsed the need for change in the aggregation requirements of the JP-4 adjustment. Commenters felt that such requirements would further restrict the business decisions of a multi-refinery refiner.

Many commenters addressed the RFG production restrictions placed on a refiner that receives a JP-4 adjustment. Commenters felt that prohibiting RFG production by these refineries may cause a refiner not to produce RFG for areas where it is needed. Also, commenters argued that some refineries who qualify for the JP-4 adjustment may have already produced RFG. These commenters felt that the environmental impact of allowing RFG production would be minimal.

Analysis and Conclusion

EPA is retaining the proposed requirement that a multi-refinery refiner qualifying for a JP-4 baseline adjustment, for which not all of its refineries produced JP-4 in 1990, must determine its compliance on an aggregate basis. Under the regulations promulgated today, such a refiner is able to obtain a JP-4 baseline adjustment because it has determined its JP-4 to gasoline ratio on an aggregate basis. EPA continues to believe that it is

appropriate to thus require such a refiner to determine its anti-dumping compliance on an aggregate basis as well. A multi-refinery refiner for which each of its refineries meets the JP-4 baseline adjustment criteria individually may determine its compliance on an aggregate or non-aggregate basis.⁵

EPA continues to believe that prohibiting RFG production is a critical criteria for this baseline adjustment as it is the best way to ensure that no "dumping" will occur. EPA does not consider this requirement to be unduly restrictive.

E. Comments Regarding the Effect of JP-4 Production on Refinery Operation

Summary of Comments

Several commenters, including both those supporting the regulation changes and those opposing them, stated that EPA should give full consideration to the effects of JP-4 production on refinery operations. These commenters pointed out that 1990 JP-4 production can limit gasoline production at a refinery, and that premium gasoline, the most profitable gasoline to produce, is most affected by baseline limitations. Commenters stated that JP-4 production limited small refineries with low conversion configurations who could not fractionate excess gasoline into distillate.

Analysis and Conclusion

EPA recognizes that there are difficulties in the conversion of refinery operations from JP-4 production to gasoline production, and that production volumes may also be limited. EPA also recognizes that the burden of the conversion and compliance with the RFG and anti-dumping requirements differs from refiner to refiner. However, as stated previously, EPA's authority in allowing exceptions to the regulations in the form of baseline adjustments is limited. Environmental impact and regulatory burden are the only factors EPA considered in determining what type of baseline adjustment, if any, should be allowed. EPA believes that the most appropriate measure of the regulatory burden in this context is the JP-4 to gasoline ratio, discussed above.

V. Crude Oil Quality Baseline Adjustment

A. Introduction

Crude sulfur content is increasing nationwide.⁶ The ability of refineries to deal with this change varies. EPA is aware that the quality of the crude oil (with regard to sulfur content) available to refineries in PADD IV has been deteriorating faster than crude oil in other regions of the U.S. since 1990.⁷ In addition, refineries in this region do not have access to foreign crude oil imports other than those from Canada. Thus, the quality of crude oil available to these refineries, from conventional or alternative sources, is limited. Prior to promulgation of the December 1993 final rule, EPA was not aware that the deterioration of crude oil available to certain refineries (in regard to increasing sulfur content) might force them to cease operation since the burden of compliance might be prohibitively expensive.

The anti-dumping requirements contained in the December 1993 regulations generally do not allow baseline adjustments for changing crude oil quality or availability. However, as discussed in the preamble to the December 1993 final rule, EPA recognized that a refiner's ability to comply with its individual baseline can be difficult due to changes in crude oil supplies, markets, and fuel specifications. As with the work-in-progress baseline adjustment (40 CFR 80.91) and the original JP-4 baseline adjustment (40 CFR 80.91), EPA believes it is appropriate to provide baseline adjustments in situations where the anti-dumping regulatory burden is extremely onerous and where requiring compliance would yield little or no environmental benefit. Thus, EPA is finalizing such a baseline adjustment where a dramatic increase in crude sulfur content has occurred which could severely affect the anti-dumping compliance of refineries with extremely low baseline sulfur levels.

EPA expects a minimal environmental impact from allowing the low-sulfur crude baseline adjustment (based on the criteria finalized today) for two reasons. First, only a few refineries are expected to qualify for the adjustment and second, the total production volume of these refineries is marginal.

⁵ However, as for all refineries, once the decision to determine compliance on an aggregate basis is made, compliance must be made on that basis for all future compliance periods.

⁶E.J. Swain, "U.S. crude slate continues to get heavier, higher in sulfur," *Oil & Gas Journal*, p. 37, January 9, 1995.

⁷Ibid.

B. General Comments on the Proposal

Summary of Comments

Several commenters felt that EPA was unjustified in granting a small number of refiners special treatment for what is a "fact of life" for all refiners. They felt this proposal appears to satisfy certain refiners at the expense of others. Some commenters claimed that since sour crude oil is typically less expensive than sweet crude oil, refiners can invest in the appropriate level of desulfurization capacity to refine the crude into a competitive crude slate. On the other hand, one commenter asserted that it is not appropriate to grant a waiver to purchase sour crude oil supplies, and then allow the production of gasoline which would not meet the anti-dumping standards.

Other commenters opposing the proposal felt that, although it is very restrictive, they could not support concessions for only a few regulated parties. They contended that EPA should force a capital solution by the affected refiners, and not allow the adjustment.

Analysis and Conclusion

In finalizing the low-sulfur crude baseline adjustment, EPA is using the authority granted to it by Congress to allow limited exceptions under narrow circumstances. As with the other baseline adjustments mentioned above, the appropriate criteria for obtaining an adjustment are designed to be stringent in order to provide relief only in cases of extreme burden and to maintain the environmental benefits of the (anti-dumping) program. EPA is not allowing adjustments for all refiners who have experienced increasing crude sulfur levels since 1990 or for refiners who will experience such increases in the future. Thus, the existing provisions in part 40, section 80.91 of the regulations still apply, i.e., no adjustments for crude oil quality or availability changes are allowed unless the criteria finalized today are met.

C. Comments on Crude Oil Quality Changes Since 1990

In the NPRM, EPA requested comments on inherent crude oil properties, other than sulfur, which have significantly deteriorated since 1990 and which directly and significantly affect the values of any fuel parameters for which an individual baseline value must be determined. In addition, EPA requested comments on future crude oil trends (i.e. whether crude sulfur content will continue to increase or stabilize), specifically on a regional or PADD basis.

Summary of Comments

No commenter specified crude oil properties, other than sulfur, which have significantly deteriorated since 1990 and which directly and significantly affect the values of any fuel parameters for which an individual baseline value must be determined. Additionally, no commenter discussed future crude oil property trends. Commenters did discuss the RFG and anti-dumping programs, specifically with regard to individual baselines, as indicated below.

One commenter in support of a baseline adjustment commented that the existing anti-dumping regulations have the unintended consequence of placing a disproportionately heavy burden on producers of clean gasoline which ultimately could lead to a deterioration of air quality. Specifically, the commenter stated that refiners who produced clean gasoline in 1990 are held to stricter standards than those who produced dirtier gasoline in 1990. Furthermore, the difficulties of the more stringent standards become more acute when the quality of a refiner's gasoline is affected by circumstances beyond the refiner's control.

Another commenter indicated that driving the cleanest refiners out of business was not an intended effect of the RFG and anti-dumping programs, and would not promote protection of public health or the environment. This commenter felt the regulations should recognize the needs of the cleanest refiners and afford them the opportunity for continued operation, by allowing a low sulfur crude adjustment. The commenter stated that despite increased sulfur content, clean refiners would still produce very clean gasoline. Furthermore, the commenter indicated that without an appropriate and sufficient baseline adjustment, clean refiners may have to cease operation which could subsequently lead to fewer clean refineries in the petroleum industry.

In regard to standard pipeline procedures, one commenter felt that certain crude oil properties were beyond the control of downstream refiners. Therefore, the commenter stated that refiners should be allowed to adjust baselines annually. As an example, the commenter stated that perhaps such an adjustment would be based on the naphtha fraction of the crude oil received from the Alaska North Slope.

Analysis and Conclusion

EPA disagrees with the comment that refiners who produced relatively cleaner gasoline in 1990 are held to a stricter

standard than those who produced relatively dirtier gasoline in 1990. The same basic standard applies to all refiners with an individual baseline, that is, they must produce gasoline as clean as the gasoline they produced in 1990.

As indicated above, the original regulations generally do not allow baseline adjustments for changing crude oil quality or availability. However, during the review and approval of baselines, EPA was informed that the depleted supply of very sweet crude oil which had been processed in 1990 could force one or more refiners to cease gasoline production. If a refiner processed a very sweet crude (e.g., less than 500 ppm) in 1990, its baseline sulfur level could be 50 ppm or lower. Because of increasing sulfur content in the crude oil supply, if that refiner currently processes relatively sweet crude oil (e.g., less than 1200 ppm sulfur), it would likely be unable to comply with its individual baseline without severe economic burden due to its extremely low baseline sulfur level. It may also be extremely expensive for refiners to add refinery units in order to ensure compliance. For example, gasoline sulfur may be lowered by hydro-desulfurization of gasoline components and/or by charging the gasoline to blendstock producing units. This option is expensive and could require the installation of considerable new refining equipment. It could also require extensive volumes of hydrogen, which may be hard to produce within a given refinery. Thus, compliance options for such a refiner might be prohibitively expensive.

In response to the comment on standard pipeline procedures, the purpose of the low-sulfur crude baseline adjustment is to provide refiners limited relief in situations where the anti-dumping regulatory burden is extremely onerous and where requiring compliance would yield little or no environmental benefit. Although a few refiners will be granted the low-sulfur crude baseline adjustment, these refiners must realize that they (like all other refiners) will be responsible for future adaptations to changing crude sulfur levels. Baseline adjustments are intended to reduce, not eliminate, the burden associated with regulatory compliance. If the burden were completely eliminated, then the required criteria would no longer be met and the goals of the anti-dumping program would no longer be fulfilled.

D. Comments on the Proposed Criteria for a Baseline Adjustment

In the NPRM, EPA proposed seven criteria that a refiner would have to meet to qualify for the low-sulfur crude baseline adjustment. Comments on these criteria are discussed below.

Criterion 1: *The refinery produces no reformulated gasoline.*

The anti-dumping requirements, in general, apply to all conventional gasoline whether or not RFG is produced. Under this adjustment, however, no dumping will result from RFG production. If a refiner who receives this baseline adjustment subsequently produces RFG, the refiner's conventional gasoline compliance will be subject to its original unadjusted baseline during the current averaging period and in all subsequent years. However, in the NPRM, EPA also proposed that the eligibility of any refinery of a multi-refinery company for this baseline adjustment is not dependent on the RFG production of the refining company's other refineries.

Summary of Comments

Some commenters stated that if a baseline adjustment were made, the prohibition of RFG production would be unnecessary and overly restrictive. Commenters added that restrictions on baseline adjustment qualification may limit a refiner's ability to adapt to future, unforeseen market changes. Commenters stated that this restriction would have an adverse impact on cleaner operations by limiting flexibility and competition, and could lead to a future shortage of RFG. It was pointed out that many refiners would be prevented from producing RFG if they were forced to revert back to their unadjusted baselines. Commenters argued that, if refiners were forced to choose between RFG and conventional fuel production based on artificial factors rather than a response to market demand, refiners with higher sulfur baselines would be able to compete in both markets simultaneously with less competition. Therefore, the commenters suggested that EPA should allow the baseline adjustment for refiners that meet the other proposed criteria, regardless of their RFG production.

Analysis and Conclusion

EPA considered the above comments in its decision, but maintains that a refiner must not produce RFG to qualify for a baseline adjustment. EPA believes that refiners who were able to adjust refinery operations (through capital investment or process modifications) to produce RFG should be able to

accommodate increases in crude sulfur content. In addition, the Agency believes that prohibiting RFG production is the best way to ensure that "no dumping" will occur. EPA does not believe that this requirement is unduly restrictive. Therefore, EPA is finalizing the proposed criterion that a refiner must not produce RFG to qualify for this baseline adjustment.

Criterion 2: *A refiner has an unadjusted baseline sulfur value less than or equal to 50 ppm.*

EPA believes that requiring a threshold sulfur content of 50 ppm is appropriate because higher baseline levels would indicate that the refiner's 1990 crude slate was not extremely low in sulfur. In addition, a refiner with a higher baseline sulfur level should have sufficient leeway, e.g., types of crude oil supplies used or available and processing flexibility, to comply with its individual baseline. In the NPRM, EPA requested comments on the appropriateness of requiring a threshold sulfur content, and on the suitability of 50 ppm or another concentration as a threshold level.

Summary of Comments

Most commenters opposing the baseline adjustment were concerned that such an adjustment would not result in equal treatment for all, and would give some refiners an unfair advantage. These commenters contended that the rule should not be applied to only those with sulfur levels below 50 ppm or any other number, because increased crude sulfur impacts every refiner regardless of its baseline. Commenters added that all refiners are faced with changing crude oil quality; refiners must consider these changes when planning future capital investments and product slates. Furthermore, many commenters asserted that there is no basis for the 50 ppm threshold proposed by EPA. They indicated that this level should be significantly raised or eliminated. In addition, one commenter argued that requests for adjustment could go beyond crude sulfur content, though the commenter did not specify which other crude oil parameters could be investigated. Finally, commenters contended that this rule could be challenged based on the competitive advantage gained by exempt parties.

Analysis and Conclusion

As with any baseline adjustment, EPA's authority to allow adjustments is limited. As stated previously, exceptions to this requirement of the Act will only be allowed for cases of

extreme economic burden with minimal environmental impact. Not all refiners who have experienced increases in crude oil sulfur levels are unduly burdened. In order to quantify this burden, and for the reasons stated earlier, EPA proposed a 50 ppm threshold value for the crude oil sulfur content of a refiner's unadjusted baseline. Because commenters did not suggest another threshold value and EPA is not aware of another value that would be more appropriate, the Agency is finalizing an unadjusted baseline sulfur level of 50 ppm. Refiners must comply with this sulfur criterion to qualify for a low-sulfur crude baseline adjustment.

Criterion 3: *The affected refinery of a multi-refinery refiner may not be aggregated with the refiner's other refineries for compliance purposes.*

EPA proposed that this baseline adjustment would be available to refineries of both single-refinery and multi-refinery companies. However, EPA also proposed that the affected refinery of a multi-refinery refining company may not be aggregated with the company's other refineries for compliance purposes. If a refinery that is granted a low-sulfur crude baseline adjustment is subsequently included in an aggregate baseline, its conventional gasoline compliance will be subject to its original unadjusted baseline during the current averaging period and in all subsequent years. Therefore, to qualify for a low-sulfur crude baseline adjustment, the affected refinery of a multi-refinery company may not be aggregated with the refining company's other refineries for compliance purposes.

Summary of Comments

Commenters opposing the baseline adjustment proposal suggested that EPA should not tie eligibility for the adjustment to aggregation. If there is a need for adjustment, it should affect the refinery only, without the need to revert back to the unadjusted baseline.

Analysis and Conclusion

EPA agrees that allowing refiners to comply with the anti-dumping requirements on an aggregate basis provides flexibility. However, the Agency still believes that refiners should not be able to aggregate and also receive a low-sulfur crude baseline adjustment for one of its refineries. Because the ability to aggregate is limited to multi-refinery refiners, such refiners have more flexibility than single refiners in regard to baseline compliance. Thus, they already have

some means of reducing the effect of increasing crude sulfur on their compliance. EPA believes it would be inappropriate, and possibly anti-competitive, to allow a refinery receiving this baseline adjustment to also be included in an aggregate baseline.

Criterion 4: *The installation of the refinery units necessary to process higher sulfur crude oil supplies to comply with the refinery's actual (i.e., unadjusted) baseline would cost \$10 million or be greater than or equal to 10 percent of the depreciated book value of the refinery as of January 1, 1995.*

The purpose of this provision is to ensure that baseline adjustments are limited to cases of extreme burden or economic hardship. (This is the same requirement for economic burden that must be met by a refiner seeking a work-in-progress baseline adjustment.) EPA requested comments on this criterion and whether the specified values of \$10 million or 10 percent are adequate given the type of unit (e.g., hydrotreater) that a refiner would have to install in order to comply. EPA also requested comments on (1) the economic burden, if any, of producing and selling gasoline blendstocks in lieu of finished gasoline, and (2) the economic burden of complying with an unadjusted baseline under the circumstances described above by modifying refinery operations in ways other than installing major refinery units.

Summary of Comments

Most commenters supported the proposed criterion of \$10 million or 10 percent and stated that this criterion is fair and appropriate. One commenter stated that refining equipment is expensive and it is not difficult for a refiner to spend \$10 million. Furthermore, the commenter indicated that the 10 percent depreciation value was not a significant hurdle either.

Commenters also expressed concern that if this adjustment were not allowed, refiners would be forced by the regulation to produce blendstocks in lieu of gasoline. They stated that the discounts refiners would be forced to give for at least some of those blendstocks would be too great to remain viable; refiners could not profitably produce blendstocks in lieu of gasoline. The commenters contended that the decision to produce gasoline is dictated by refinery design and marketing. One commenter added that restricting the ability to freely choose the most profitable product mix would be an economic disadvantage.

In response to the second request, nearly all commenters agreed that increases in crude sulfur directly (but not linearly) lead to increases in gasoline sulfur, unless major structural and operational modifications are made to the refinery (assuming the necessary equipment is not already in place.) Whether and how EPA should address this situation, though, is a point of contention.

One commenter, however, stated that changes in crude sulfur are a poor indicator of gasoline sulfur levels. This commenter suggested that it would be more appropriate to consider catalytic cracking unit (catcracker) feed sulfur. This suggestion applies to refineries without vacuum units, which catcracker reduced crude. Catcracker sulfur can only be reduced by either lowering the distillation end point or hydrotreating the feed or the blendstock. The commenter also stated, though, that lowering the end point artificially forces a refiner to operate at less than optimum conditions. Furthermore, hydrotreating the blendstock stream is impractical since it reduces the octane value of the blendstock and forces higher reformer severity. The commenter added that feed stream hydrotreatment is expensive.

Analysis and Conclusion

EPA agrees that a refiner could be subject to an extreme economic burden if it were forced to produce blendstocks in lieu of gasoline or to significantly modify refinery operations in order to comply with the anti-dumping regulations (although some refiners may produce blendstocks or modify operations at a high cost for other reasons). As a result, EPA believes that limited relief from these potential burdens is necessary and can be provided through a low-sulfur crude baseline adjustment which the Agency is finalizing today.

EPA agrees that it may not be difficult for a refiner who meets the other criteria specified for this baseline adjustment to spend \$10 million to reduce sulfur in order to comply with the anti-dumping requirements. Nonetheless, EPA believes this economic criteria is essential for showing extreme economic burden, and thus is retaining this provision as proposed.

EPA generally agrees with the comment that changes in crude sulfur are a poor indicator of gasoline sulfur levels. However, given the other criteria that a refiner must meet to obtain this baseline adjustment, particularly the low threshold values for baseline gasoline sulfur and crude sulfur changes, EPA believes that it is

appropriate to consider the influence of extremely low crude sulfur levels on extremely low baseline sulfur levels. As will be discussed below, EPA is not basing the actual adjustment on the relationship between crude sulfur and baseline sulfur levels.

Criterion 5: *The refiner has access to a geographically-limited crude oil supply.*

EPA proposed that a refiner must show that it could not reasonably or economically obtain crude oil from an alternative source that could be refined into conventional gasoline in compliance with the refiner's unadjusted baseline. EPA requested comment on this proposed provision and on criteria that should be used to evaluate "reasonably and economically available".

Summary of Comments

Small refiners with restricted operational flexibility and limited financial access supported the proposal. They felt that without more than the 125 percent flexibility given in the original regulation (i.e., simple model anti-dumping compliance for sulfur), crude sulfur increases would force very clean small refiners with low baselines out of business. One commenter stated that refiners in the Rocky Mountains have traditionally relied on very sweet crude oil supplies which have historically been available in the area. However, the sulfur content of Rocky Mountain crude oil has increased at a greater rate than that of crude oil in the rest of the country. This commenter stated that these refiners realistically only have access, due to geography and economics, to crude oil supplies imported at the Canadian border.

One commenter suggested that EPA should provide examples of refiners meeting this requirement (e.g., all single-refinery refiners in land-locked states). This commenter also suggested additional criteria EPA could consider in allowing this adjustment, such as the distance from a particular refinery to alternative sources of low sulfur crude supplies, the size of the refinery, the ability of the refiner to access and transport such crude oil supplies, and the extent to which the viability of the refiner is threatened by the cost of obtaining alternative crude oil supplies. Another criterion that was suggested would be the increase in the average sulfur content of the crude slate used for gasoline production between 1990 and 1994.

Analysis and Conclusion

Although EPA agrees with the importance of evaluating the

information described in the above suggestion, it does not believe it is necessary to impose additional specific criteria for determining who should qualify for a low-sulfur crude baseline adjustment. EPA will consider these factors in determining whether a refinery meets this criterion and will evaluate petitions for this low-sulfur crude baseline adjustment on a case-by-case basis. EPA is finalizing this provision as proposed.

Criterion 6: *The refiner has experienced an average crude sulfur increase greater than or equal to 25 percent since 1990.*

EPA proposed that the highest annual-average crude sulfur slate used during the period 1991–1994, inclusive, be compared to the 1990 sulfur level to determine if the “25 percent” criterion is met. Comments were requested concerning the level of difference between 1990 and post-1990 crude sulfur contents that should exist in order to obtain an adjustment, and whether 1991–1994 is an appropriate comparison period or whether some other comparison should be established. The Agency also requested comments as to whether it would be appropriate, and feasible, to distinguish crude oil supplies used solely for gasoline production from crude oil supplies used to produce other refinery products. If such distinction were possible, EPA believes it would be appropriate to base all calculations (pertaining to this adjustment) only on the volumes of each crude used to produce gasoline.

Summary of Comments

Opponents to the proposal were concerned that this adjustment rewards refiners that purchased higher sulfur crude oil supplies after 1990. They indicated that the trend toward sour crude oil supplies was recognized during the Regulatory Negotiation, and that the annual averaging and 125 percent compliance provisions for conventional gasoline were created to address the situation. These commenters felt that if the 125 percent compliance level is not sufficient, it should be changed for all parties.

Some commenters supporting this baseline adjustment indicated that it is feasible to distinguish crude oil supplies used solely for gasoline production from crude oil supplies used to produce other refinery products, and that it would be appropriate to evaluate this criterion based only on the crude used for gasoline production.

Analysis and Conclusion

Although the trend toward sour crude oil supplies was recognized in the

Regulatory Negotiation, the quality of the crude oil available to refiners in PADD IV has been deteriorating faster than the rest of the U.S. since 1990. As a result, some refiners with very clean baselines have found it very difficult to comply with the anti-dumping regulations. EPA is finalizing the low-sulfur crude baseline adjustment for those refiners who qualify for the adjustment based on the criteria finalized today. However, EPA believes that the criteria are necessarily stringent so that only those refiners who are extremely burdened will qualify. In addition, EPA believes that because the program is so restrictive, the environmental impact of the adjustment will be minimal and will not negate the benefits of the anti-dumping program.

Commenters supported EPA's belief (as stated in the NPRM) that it is appropriate and feasible to base the low-sulfur crude baseline adjustment only on crude used for gasoline production. EPA is finalizing this criterion as proposed, with a correction to the regulations (contained in the proposal) which reflects the Agency's intent in both the proposal and today's final rule, as follows. In the proposed regulations, one aspect of the equation associated with this criterion was incorrectly defined, namely, the definition of the variable “CSHI”. In the proposed regulations, “CSHI” was defined as the “highest annual average crude slate per paragraph (e)(8)(ii)(B) of this section.” Paragraph (e)(8)(ii)(B) of that section referenced the “* * * highest crude sulfur level (ppm) of the crude slate utilized in the production of gasoline in the refinery in 1994 * * *.” Thus, the definition of “CSHI” in the proposed regulations was not consistent with the discussion contained in the proposal preamble (60 FR 40012, August 4, 1995) which referenced the years 1991–1994, as does today's regulation. Today's regulation corrects this error to reflect the Agency's intent in both the NPRM and today's final rulemaking preambles.

Criterion 7: *Gasoline sulfur changes are directly and solely attributable to the crude sulfur change, and not due to alterations in refinery operation nor choice of products.*

No comments were received on this proposed criterion. EPA is thus finalizing this requirement.

E. Comments on the Proposed Options for a Baseline Adjustment

EPA requested comments on the options proposed for determining the adjusted baseline sulfur level if a refiner meets the proposed criteria and is approved for a baseline adjustment.

These options are summarized below. EPA also requested comments on its view that a refiner should not be exempt from its other anti-dumping compliance baselines, i.e., all other simple model requirements as well as exhaust benzene and exhaust toxics emissions under the complex model since those emissions are minimally affected by sulfur. See the support document for this rule for more discussion related to the various proposed options. (“Regulation of Fuels and Fuel Additives: Standards for Reformulated and Conventional Gasoline—Detailed Discussion and Analysis”, Air Docket A-95-03.)

Option 1: EPA proposed that the adjusted baseline sulfur value be related to the ratio of the sulfur content of the highest sulfur crude utilized in 1994 to the average sulfur content of the crude slate utilized in 1990. Under this option, if a refiner used two crude oil supplies in its gasoline production in 1994 with sulfur levels of 1000 ppm and 2100 ppm, the higher sulfur crude would be used in the determination of the adjusted baseline sulfur value. If, for example, the 1990 average crude sulfur content was 500 ppm (resulting in a baseline sulfur value of approximately 20 ppm), the adjusted baseline sulfur value would be 84 ppm $\{20 \text{ ppm} \times (2100/500)\}$. EPA specifically requested comments on whether the highest sulfur crude from 1991–1994 should be used rather than just considering 1994.

Option 2: EPA proposed that the adjusted baseline sulfur value be related to the ratio of the highest average sulfur content of the crude slate used in 1991, 1992, 1993 or 1994 to the average sulfur content of the crude slate used in 1990. Incorporating the 1990 baseline and crude sulfur levels from Option 1, and average crude sulfur contents of 1000, 1100, 1400, and 1300 ppm for years 1991, 1992, 1993 and 1994, respectively, the adjusted baseline sulfur value would be 56 ppm, i.e., $20 \text{ ppm} \times (1400/500)$.

Option 3: EPA proposed that an adjusted baseline sulfur value be determined for each year through 1999. Beginning January 1, 2000, the adjusted baseline sulfur value would be the same as it was in 1999. EPA proposed that the annual adjusted value be determined over the four years prior to the year before the new value takes effect, except for 1995 and 1996 which would be determined as specified in Option 1 above (and for which the adjusted baseline sulfur value would be the same). EPA also proposed that if less than a 25 percent difference occurs between the 1990 average crude sulfur level and the average crude sulfur level over a four-year period, the refiner would receive no additional

adjustments, and its most recent adjusted baseline sulfur value would become its permanent baseline sulfur value at that point. For example, the standard for 1997 would be based on the ratio of the average sulfur content of the crude oil used in 1992, 1993, 1994 or 1995 to the average sulfur content of the crude slate used in 1990. EPA proposed that the resulting adjusted baseline sulfur value be submitted to the Agency for evaluation and approval by June 1 of the year preceding the year for which it would be the standard. In the example given, the adjusted baseline value (and all supporting information) would have to be submitted by June 1, 1996.

Option 4: For this option, EPA proposed requirements similar to those presented for Option 3 except that adjustments would only be allowed through 1997, i.e., the simple model years. Beginning in 1998, the adjusted baseline sulfur value would be equal to the value in 1997.

Option 5: EPA proposed that the adjusted baseline sulfur value be the unadjusted baseline sulfur value plus 50 ppm. EPA specifically solicited comments on the appropriateness of using 100 ppm or 150 ppm instead of 50 ppm.

In order to show that increasing gasoline sulfur is due solely to increasing crude sulfur, EPA also requested comments as to whether changes in refinery configuration or refinery operation should be prohibited.

Summary of Comments

Commenters suggested that if a one-time baseline adjustment is granted, refiners should be given the opportunity to estimate the compliance burden over a five to ten year period. According to commenters this concession would accommodate someone who meets the requirements in the short term, but who would require more substantial investment to implement a long term solution. Another commenter felt a one-time adjustment would only benefit the refiner if it were large enough to provide relief for the foreseeable future. Commenters indicated that the EPA proposals did not provide adequate time for adjustment. Furthermore, one commenter argued that proposing a one-time adjustment for a dynamic situation (changing crude oil sulfur) is illogical. The commenter explained that other adjustments allowed by the regulation, such as the work-in-progress, were for temporary events.

Of the options presented in the NPRM, most commenters who supported any adjustment felt that Option 1 was too restrictive and would offer little relief. They preferred Option

5 as the simplest and most flexible approach. One commenter stated that Options 1 and 2 were inappropriate since they include the assumption that crude sulfur and gasoline sulfur increase at a constant ratio, which is not correct. The commenter added that the sulfur content of gasoline depends on several factors such as the crude oil composition, refinery operation, and the type of gasoline produced. This commenter contended that Options 3 and 4 were also inappropriate, although Option 3 was preferable to Option 4 because of the additional time provided for obtaining a final adjustment. This commenter supported continuing relief, but did not support a limit beginning in 1997 or 1999. The commenter considered Option 5 to be the most appropriate option for making a sulfur adjustment, if the added amount was 150 ppm. This commenter also expressed concern regarding the low repeatability of tests for sulfur below 100 ppm. The commenter claimed that EPA appears to recognize the low repeatability by defining a negligible quantity limit of 30 ppm. Finally, this commenter proposed that EPA provide another opportunity for adjustment in five years, if crude sulfur levels continue to increase at faster rates than anticipated.

One commenter felt that if a refiner does not produce RFG, does not aggregate, has a limited crude supply, and meets the "financial hurdles", there is no need for arbitrary numbers, and such refiners should be given the statutory baseline of 338 ppm.

In addition to these concerns, other commenters opposed the continuation of the adjustment beyond the simple model time frame. They stated the complex model provides enough flexibility for refiners, and that EPA has neither the expertise to evaluate non-sulfur control options for complying with NO_x requirements nor the ability to shift from the simple model to the complex model for exhaust benzene. Commenters also stated that the simple model sulfur cap can be avoided by using the complex model. One commenter suggested that if EPA feels that more flexibility is needed, it could allow separate use of the simple and complex models for conventional fuel and RFG sulfur, olefins, and T90. This approach would provide industry-wide flexibility and would minimize the need to provide special relief to a limited number of refiners.

EPA also received a suggested option from a commenter who proposed that a refiner should be able to produce conventional gasoline which does not meet, on average, the requirements of its

individual baseline if the refiner could show that deviation from its baseline was directly and solely attributable to crude sulfur change, and not due to alterations in refinery operation or choice of products. The suggested option also contained other requirements, which are essentially those finalized today by EPA, that are necessary for determining baseline adjustment eligibility.

Analysis and Conclusion

All five proposed options would determine the adjusted baseline sulfur value prior to the period of production, thus treating an affected refiner like all other refiners. Although today's rule provides some relief for refiners who are unduly burdened by baseline compliance, these refiners may have to modify refinery operations in the future to accommodate increasing crude sulfur levels. In the future, however, refinery modifications will likely be required of most refiners, without the benefit of a baseline adjustment.

After careful analysis of the proposed options, sulfur distribution data, and comments, EPA is finalizing essentially Option 5 in today's rule. Under this option, a refiner's one-time adjusted baseline sulfur value will be equal to the refiners unadjusted baseline sulfur value plus 100 ppm. EPA believes that a 100 ppm sulfur adjustment is appropriate for the following reasons. First, 50 ppm, as suggested in the NPRM, is too low. Upon further consideration, especially regarding the criteria which must be met in order to obtain this adjustment, EPA believes that a sulfur adjustment of 50 ppm would not provide sufficient relief. Refiners who are severely burdened by the anti-dumping regulations, and who meet the criteria, will likely need more than a 50 ppm baseline adjustment in order to reduce the extreme burden of the regulations. Second, a baseline adjustment value of 150 ppm sulfur is too high. Although this value was proposed in the NPRM, the Agency believes that an adjustment of this magnitude would negate the intentions of this regulation (which is to provide reasonable relief for extremely burdened refiners) and the goals of the anti-dumping program. If an adjustment of 150 ppm sulfur was permitted, several refiners not qualifying for the adjustment (due to the 50 ppm threshold required in Criterion 2) would have lower baseline sulfur values than some refiners who do qualify for the adjustment. Finally, EPA believes that a sulfur adjustment of 100 ppm will provide adequate relief for qualifying refiners while maintaining the

environmental benefits of the anti-dumping program.

Based on the above decision, 150 ppm is the maximum adjusted baseline sulfur value that a refiner could be granted under today's final rule (50 ppm threshold + 100 ppm additional sulfur = 150 ppm maximum adjusted baseline value for sulfur). The Agency believes that this option will provide refiners maximum flexibility with minimal anti-competitive effects.

Regarding the comment that EPA should provide another opportunity for adjustment in five years if crude sulfur levels continue to increase at faster rates than expected, EPA believes this action would be inappropriate. Baseline adjustments are intended to provide relief where the burden is extreme. EPA expects that the refining industry will develop means of dealing with increasing crude sulfur levels. The cost of such means may be high, but given the lead time, and the industry's knowledge of crude oil exploration and production, it is unlikely that a well-prepared refiner would be extremely burdened by future high sulfur levels.

As with other baseline adjustments, refiners receiving this baseline adjustment will retain the adjustment even after the Simple Model years, i.e., after 1997. Although the Complex Model does provide more compliance flexibility than the Simple Model, EPA, via the baseline adjustments, is providing relief for compliance with anti-dumping requirements as a whole, and not just the Simple or Complex Model requirements. In some cases, even the Complex Model does not provide enough flexibility such that an extreme burden (when evaluated under the Simple Model) is reduced. EPA also disagrees with commenters who suggested that EPA allow compliance to be determined under one model for conventional gasoline and under the other model for RFG. The reasons for requiring the use of the same models for both conventional and RFG were discussed at length in the December 1993 final rule. Additionally, as stated several times previously, EPA does not have authority and does not believe it is appropriate to provide a broad, i.e., industry-wide, adjustment program.

EPA considered the suggested option, but is not finalizing it due to some concerns about the concept and detail of the option. This option would exempt a qualifying refiner from complying with its anti-dumping compliance baseline if the refiner can show, at the end of the compliance period, that deviation from its baseline was directly and solely attributable to crude sulfur change. Thus, unlike all other refiners, a

qualifying refiner would have no clearly defined standard prior to year of production. Furthermore, if EPA was not satisfied that deviation from its baseline was directly and solely attributable to crude sulfur change, the refiner would have to determine compliance relative to its unadjusted baseline and would likely be out of compliance.

VI. Low Sulfur, Low Olefin Baseline Adjustment

A. Introduction

Certain very clean individual baselines, i.e., those with extremely low values for one or more fuel parameters, can make compliance for refiners extremely difficult or impossible due to (1) limited maneuverability about the clean baseline and (2) limited flexibility with regard to annual averaging. During the review and approval of individual baselines, EPA was informed that extremely low baseline sulfur and olefin values could force a refiner to cease gasoline production. In addition, refiners with very clean baselines presumably produce the least polluting gasoline. It would be environmentally harmful if these refiners ceased production and their volumes were then produced by refiners with relatively dirtier baselines.

EPA believes it is appropriate to provide limited relief in the form of a baseline adjustment in those few cases where the regulatory burden is extremely onerous and where requiring compliance would yield little or no environmental benefit.

B. General Comments on the Proposal

To provide some relief for those refiners who are severely burdened by the combination of extremely low sulfur and olefin levels, EPA proposed a baseline adjustment which set the annual average sulfur and olefin values to 30 ppm and 1.0 volume percent (vol%), respectively. To receive this adjustment, EPA proposed that a refiner must meet the following criteria:

(1) Have an individual baseline sulfur level less than or equal to 30 ppm and an individual olefin level less than or equal to 1.0 vol%;

(2) Show that installation of the refinery units necessary for compliance with an unadjusted baseline would cost \$10 million or be at least 10 percent of the depreciated book value of the refinery as of January 1, 1995.

Additionally, EPA proposed that such an adjustment would be available to both single-refinery and multi-refinery refining companies. However, the affected refinery of a multi-refinery

company would not be allowed to be aggregated with the company's other refineries for compliance purposes. If at any time a given refinery's baseline is aggregated with another refinery's baseline for compliance purposes, EPA proposed that the applicable individual baselines will revert to the unadjusted baselines.

EPA also proposed that the summer and winter individual baseline values for sulfur and olefins be set to 30 ppm and 1.0 vol%, respectively.

Summary and Analysis of Comments

Several commenters supported this proposed adjustment and EPA's statement that no environmental impacts would occur due to this rule. Additionally, many commenters cited problems with the accuracy of laboratory test methods at very low sulfur and olefin levels as further justification for this baseline adjustment. Commenters stated that errors in lab analysis, sample contamination, or product commingling can incorrectly result in fuel parameter values which are greater than the baseline values when those baseline values are extremely low. EPA agrees that this baseline adjustment will provide flexibility for qualifying refiners and will reduce the complications associated with testing low sulfur and olefin levels.

While the majority of commenters supported this proposal, many of them suggested changes in the criteria for the adjustment. One commenter suggested that EPA remove the aggregation requirement. This commenter stated that a conflict arises when a refiner also qualifies for a JP-4 baseline adjustment (under the JP-4 baseline adjustments, in certain instances, a qualifying multi-refinery refiner must determine its anti-dumping compliance on an aggregate basis). EPA agrees with this comment. EPA proposed the aggregation requirement because it believed that, as for certain other baseline adjustments, it would be inappropriate to provide a baseline adjustment and to also allow a refinery receiving such an adjustment to be included in an aggregate baseline for compliance purposes. Refiners who can comply with the reformulated and anti-dumping regulations on an aggregate basis (i.e., multi-refinery refiners) already have a degree of flexibility over single-refinery refiners, and EPA believed that allowing a refinery both a baseline adjustment and the ability to be included in an aggregate baseline might provide a competitive advantage to certain refiners. However, EPA did not intend that one baseline adjustment would eliminate use of another baseline

adjustment, and believes that this particular adjustment (because of the extremely low sulfur and olefin levels involved), when coupled with the ability to aggregate, would not create a significant competitive advantage. Thus, EPA is not finalizing the requirement that refiners who receive this low sulfur/low olefin adjustment must revert to the unadjusted baseline if that refinery is included in an aggregate baseline.

Several commenters suggested removing the economic criterion. Commenters stated that requiring large capital expenditures as a condition for this adjustment is unfair and devalues the investment in all such refineries. Commenters felt that refinery modifications would not guarantee compliance with an ultra-clean baseline. Commenters stated that even the allowed 125 percent of such ultra-low values could be less than the reproducibility and could approach the lower limit of the test method. Additionally, commenters said that subtle changes in the crude slate could affect compliance for these refiners.

EPA agrees that for extremely low sulfur or olefin values, it may be almost impossible to install additional equipment or take other actions to ensure compliance with 100 percent or even 125 percent of the baseline values. In such cases, the burden would most likely exceed \$10 million or 10 percent of the depreciated refinery value as proposed in the NPRM. To require demonstration of this would be of little additional value. Thus, EPA is not finalizing that provision of this baseline adjustment.

EPA proposed two options for assigning seasonal adjusted sulfur and olefins values for summer and winter. The first option was to set these values to 30 ppm and 1.0 vol%, respectively, as for the annual average values. The other option was to use the refiner's own ratio of summer and winter values to determine the seasonal values. Few commenters indicated a preference for assigning seasonal baseline sulfur and olefin levels. EPA is thus promulgating its first option, that is, values of 30 ppm sulfur and 1.0 vol% olefins for both the annual average and seasonal values. EPA believes this choice is appropriate since, under this rule, baseline values for these two fuel parameters are different from the actual unadjusted baseline values of qualifying refiners. Additionally, based on comments mentioned earlier, testing of extremely low sulfur and low olefin values could have resulted in inaccurate unadjusted baseline values. Thus any ratio

calculated from those values would also be inaccurate.

One commenter felt that refiners should be allowed to use the 30 ppm sulfur and 1.0 vol% olefin levels as threshold values which would also curtail testing of these trace parameters. This rule is only concerned with baseline development, for which all testing has been completed, and does not address compliance issues.

C. Provisions of the Final Rule

To obtain this baseline adjustment, a refinery must have a baseline sulfur value less than or equal to 30 ppm and a baseline olefin value less than or equal to 1.0 vol%. A refinery that meets this criteria will have an adjusted baseline sulfur value of 30 ppm and an adjusted baseline olefin value of 1.0 vol% as its summer, winter and annual average values. Although for most baseline adjustments refiners are required to petition EPA for the adjustment, in this case, since baselines are already established, it is more efficient for EPA to determine which refineries qualify for this baseline adjustment, rather than require such refineries to petition EPA. Thus, refiners with refineries that qualify for this adjustment will receive notification from EPA in a timely manner.

VII. Environmental and Economic Impacts

EPA expects a negligible environmental impact from allowing baseline adjustments under the criteria of this rule because (1) only a few refiners are expected to qualify for the adjustments (about 16), and (2) the total gasoline production of the qualifying refiners is small (less than three percent of annual gasoline production).

To quantitatively illustrate this negligible impact, EPA used the Complex Model (an emissions model that indicates changes in in-use motor vehicle emissions based on changes in one or more of the gasoline fuel parameters evaluated by the model) to determine the adjustments' effects on harmful exhaust toxics and NO_x emissions. Results from the model indicate less than a one percent increase in exhaust toxics emissions due to these three baseline adjustments (primarily due to the JP-4 adjustment), and less than a 0.1 percent increase in NO_x emissions (primarily due to the low sulfur crude and low sulfur/low olefins adjustments). The low sulfur crude and low sulfur/low olefins baseline adjustments have almost no impact on exhaust toxics emissions, and the JP-4 baseline adjustment will likely yield a decrease in annual NO_x emissions.

Refineries affected by this rule are geographically dispersed throughout the United States, mostly in ozone attainment areas.

The economic impacts of this rule are generally beneficial to affected refiners due to the additional flexibility provided by this action. Minimal anti-competitive effects are expected.

A more comprehensive description of the environmental and economic impacts of the RFG program is described in the Regulatory Impact Analysis (RIA) supporting the December 1993 rule. This RIA is available in Public Docket A-92-12 located at Room M-1500, Waterside Mall (ground floor), U.S. Environmental Protection Agency, 401 M Street S.W., Washington, D.C. 20460.

VIII. Administrative Requirements

A. Administrative Designation

Pursuant to Executive Order 12866, (58 FR 51735, October 4, 1993) the Agency must determine whether this regulatory action is "significant" and therefore subject to OMB review and the requirements of the Executive Order. The Order defines "significant regulatory action" as one that is likely to result in a rule that may:

(1) Have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local or tribal governments or communities;

(2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) Materially alter the budgetary impact of entitlement, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or

(4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

Pursuant to the terms of Executive Order 12866, it has been determined that this FRM is not a "significant regulatory action."

B. Impact on Small Entities

EPA has determined that this rule will not have a significant economic impact on a substantial number of small entities, and that it is therefore not necessary to prepare a regulatory flexibility analysis in conjunction with this final rule. Because today's rule provides for less stringent requirements than the December 1993 regulations for qualifying refiners, small entities which qualify for one or more of the baseline adjustments contained herein will find

it easier to comply with the requirements of the RFG and anti-dumping programs.

C. Paperwork Reduction Act

The Paperwork Reduction Act of 1980, 44 U.S.C. 3501 et seq., and implementing regulations, 5 CFR Part 1320, do not apply to this action as it does not involve the collection of information as defined therein.

D. Unfunded Mandates Act

Under section 202 of the Unfunded Mandates Reform Act of 1995 ("Unfunded Mandates Act"), signed into law on March 22, 1995, EPA must prepare a budgetary impact statement to accompany any proposed or final rule that includes a Federal mandate that may result in expenditure by State, local, and tribal governments, in the aggregate; or by the private sector, of \$100 million or more. Under section 205, EPA must select the most cost-effective and least burdensome alternative that achieves the objectives of the rule and is consistent with statutory requirements. Section 203 requires EPA to establish a plan for informing and advising any small governments that may be significantly or uniquely impacted by the rule.

EPA has determined that today's action does not include a Federal mandate that may result in estimated costs of \$100 million or more to either State, local or tribal governments in the aggregate, or to the private sector. This action has the net effect of reducing burden of the RFG program on regulated entities. Therefore, the requirements of the Unfunded Mandates Act do not apply to this action.

E. Submission to Congress and the General Accounting Office

Under 5 U.S.C. 801(a)(1)(A) as added by the Small Business Regulatory Enforcement Fairness Act of 1996, EPA submitted a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives and the Comptroller General of the General Accounting Office prior to publication of the rule in today's Federal Register. This rule is not a "major rule" as defined by 5 U.S.C. 804(2).

IX. Statutory Authority

The statutory authority for the action promulgated today is granted to EPA by sections 211 (c) and (k) and 301 of the Clean Air Act, as amended; 42 U.S.C. 7545 (c) and (k), and 7601.

List of Subjects in 40 CFR Part 80

Environmental protection, Air pollution control, Fuel additives, Gasoline, Motor vehicle pollution, Reporting and recordkeeping requirements.

Dated: February 21, 1997.
Carol M. Browner,
Administrator.

For the reasons set out in the preamble, part 80 of title 40 of the Code of Federal Regulations is amended as follows:

PART 80—REGULATION OF FUELS AND FUEL ADDITIVES

1. The authority citation for part 80 continues to read as follows:

Authority: Sections 114, 211 and 301 of the Clean Air Act as amended (42 U.S.C. 7414, 7545 and 7601).

2. Section 80.91 is amended by revising paragraph (e)(7)(i); removing paragraph (e)(7)(iv) and by adding paragraphs (e)(8) and (e)(9) to read as follows:

§ 80.91 Individual baseline determination.

* * * * *
(e) * * *
(7) * * *

(i) Baseline adjustments may be allowed, upon petition and approval (per § 80.93), if a refinery produced JP-4 jet fuel in 1990 and all of the following requirements are also met:

(A) Refinery type.

(1) The refinery is the only refinery of a refiner such that it cannot form an aggregate baseline with another refinery (per § 80.101(h)); or

(2) The refinery is one refinery of a multi-refinery refiner for which all of the refiner's refineries produced JP-4 in 1990; or

(3) The refinery is one refinery of a multi-refinery refiner for which not all of the refiner's refineries produced JP-4 in 1990.

(B) No refinery of a given refiner produces reformulated gasoline. If any refinery of the refiner produces reformulated gasoline at any time in a calendar year, the compliance baselines of all the refiner's refineries receiving a baseline adjustment per this paragraph (e)(7) shall revert to the unadjusted baselines of each respective refinery for that year and all subsequent years.

(C) 1990 JP-4 to gasoline ratio.

(1) For a refiner per paragraph (e)(7)(i)(A)(1) of this section, the ratio of its refinery's 1990 JP-4 production to its 1990 gasoline production must be greater than or equal to 0.15.

(2) For a refiner per paragraph (e)(7)(i)(A)(2) of this section, the ratio of

each of its refinery's 1990 JP-4 production to its 1990 gasoline production must be greater than or equal to 0.15.

(3) For a refiner per paragraph (e)(7)(i)(A)(3) of this section, the ratio of the refiner's 1990 JP-4 production to its 1990 gasoline production must be greater than or equal to 0.15, when determined across all of its refineries. Such a refiner must comply with its anti-dumping requirements on an aggregate basis, per § 80.101(h), across all of its refineries.

* * * * *

(8) Baseline adjustments due to increasing crude sulfur content.

(i) Baseline adjustments may be allowed, upon petition and approval (per § 80.93), if a refinery meets all of the following requirements:

(A) The refinery does not produce reformulated gasoline. If the refinery produces reformulated gasoline at any time in a calendar year, its compliance baseline shall revert to its unadjusted baseline for that year and all subsequent years;

(B) Has an unadjusted baseline sulfur value which is less than or equal to 50 parts per million (ppm);

(C) Is not aggregated with one or more other refineries (per § 80.101(h)). If a refinery which received an adjustment per this paragraph (e)(8) subsequently is included in an aggregate baseline, its compliance baseline shall revert to its unadjusted baseline for that year and all subsequent years;

(D) Can show that installation of the refinery units necessary to process higher sulfur crude oil supplies to comply with the refinery's unadjusted baseline would cost at least \$10 million or be greater than or equal to 10 percent of the depreciated book value of the refinery as of January 1, 1995;

(E) Can show that it could not reasonably or economically obtain crude oil from an alternative source that would permit it to produce conventional gasoline which would comply with its unadjusted baseline;

(F) Has experienced an increase of greater than or equal to 25 percent in the average sulfur content of the crude oil used in the production of gasoline in the refinery since 1990, calculated as follows:

$$\frac{(\text{CSHI} - \text{CS90})}{\text{CS90}} \times 100 = \text{CS}\% \text{CHG}$$

Where:

CSHI=highest annual average crude sulfur (in ppm), of the crude slates used in the production of gasoline, determined over the years 1991-1994;

CS90=1990 annual average crude slate sulfur (in ppm), of the crude slates used in the production of gasoline; CS%CHG=percent change in average sulfur content of crude slate;

(G) Can show that gasoline sulfur changes are directly and solely attributable to the crude sulfur change, and not due to alterations in refinery operation nor choice of products.

(ii) The adjusted baseline sulfur value shall be the actual baseline sulfur value, in ppm, plus 100 ppm.

(iii) All adjustments made pursuant to this paragraph (e)(8) must be accompanied by:

(A) Unadjusted and adjusted fuel parameters and emissions; and

(B) A narrative describing the situation, the types of calculations, and the reasoning supporting the types of calculations done to determine the adjusted values.

(9) Baseline adjustment for low sulfur and olefins.

(i) Baseline adjustments may be allowed if a refinery meets all of the following requirements:

(A) The unadjusted annual average baseline sulfur value of the refinery is less than or equal to 30 parts per million (ppm);

(B) The unadjusted annual average baseline olefin value of the refinery is less than or equal to 1.0 percent by volume (vol%).

(ii) Adjusted baseline values.

(A) The adjusted baseline shall have an annual average sulfur value of 30 ppm, and an annual average olefin value of 1.0 vol%.

(B) The adjusted baseline shall have a summer sulfur value of 30 ppm, and a summer olefin value of 1.0 vol%.

(C) The adjusted baseline shall have a winter sulfur value of 30 ppm, and a winter olefin value of 1.0 vol%.

* * * * *

§ 80.10 [Amended]

3. Section 80.101 is amended by removing paragraph (b)(1)(v).

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