

Draft Regulatory Impact Analysis: Control of Hazardous Air Pollutants from Mobile Sources

Chapter 14

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Assessment and Standards Division
Office of Transportation and Air Quality
U.S. Environmental Protection Agency

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CHAPTER 14: Small-Business Flexibility Analysis

This chapter discusses our Initial Regulatory Flexibility Analysis (IRFA) which evaluates the potential impacts of the proposed standards on small entities. The Regulatory Flexibility Act, as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Pursuant to this requirement, we have prepared an IRFA for the proposed rule. Throughout the process of developing the IRFA, we conducted outreach and held meetings with representatives from the various small entities that could be affected by the rulemaking to gain feedback, including recommendations, on how to reduce the impact of the rule on these entities. The small business recommendations stated here reflect the comments of the small entity representatives (SERs) and members of the Small Business Advocacy Review Panel (SBAR Panel, or ‘the Panel’).

14.1 Overview of the Regulatory Flexibility Act

In accordance with section 609(b) of the Regulatory Flexibility Act, we convened an SBAR Panel before conducting the IRFA. A summary of the Panel’s recommendations is presented in the preamble of this proposed rulemaking. Further, a detailed discussion of the Panel’s advice and recommendations is found in the Final Panel Report contained in the docket for this proposed rulemaking.

Section 609(b) of the Regulatory Flexibility Act further directs the Panel to report on the comments of small entity representatives and make findings on issues related to identified elements of the IRFA under section 603 of the Regulatory Flexibility Act. Key elements of an IRFA are:

- a description of and, where feasible, an estimate of the number of small entities to which the proposed rule will apply;
- projected reporting, record keeping, and other compliance requirements of the proposed rule, including an estimate of the classes of small entities which will be subject to the requirements and the type of professional skills necessary for preparation of the report or record;
- an identification to the extent practicable, of all other relevant Federal rules which may duplicate, overlap, or conflict with the proposed rule;
- any significant alternatives to the proposed rule which accomplish the stated objectives of applicable statutes and which minimize any significant economic impact of the proposed rule on small entities.

The Regulatory Flexibility Act was amended by SBREFA to ensure that concerns regarding small entities are adequately considered during the development of new regulations that affect those entities. Although we are not required by the Clean Air Act to provide special treatment to small businesses, the Regulatory Flexibility Act requires us to carefully consider the economic impacts that our rules will have on small entities. The recommendations made by the

Panel may serve to help lessen these economic impacts on small entities when consistent with Clean Air Act requirements.

14.2 Need for the Rulemaking and Rulemaking Objectives

A detailed discussion on the need for and objectives of this proposed rule are located in the preamble to the proposed rule. As previously stated, controlling emissions from light-duty highway vehicles, gasoline, and portable gasoline containers has important public health and welfare benefits.

Section 202(l)(2) of the Clean Air Act (CAA) directs EPA to establish requirements to control emissions of mobile source air toxics (MSATs) from new motor vehicles and fuels. Specifically, this section states that EPA must

...promulgate (and from time to time revise) regulations under subsection (a)(1) or section 211(c)(1) containing reasonable requirements to control hazardous air pollutants from motor vehicles and motor vehicle fuels. The regulations shall contain standards for such fuels or vehicles, or both, which the Administrator determines reflect the greatest degree of emission reduction achievable through the application of technology which will be available, taking into consideration the standards established under subsection (a), the availability and costs of the technology, and noise, energy, and safety factors, and lead time....The regulations shall, at a minimum, apply to emissions of benzene and formaldehyde.

In other words, EPA must determine the maximum amount of emission reduction possible through application of technology, and further assess the reasonableness of these reductions after considering cost, lead time, and the other enumerated factors. To implement this provision, today's action proposes controls on VOCs and toxics for light-duty vehicles and on benzene emissions from gasoline.

Today's action also proposes controls for gas cans under CAA section 183(e) provisions applying to consumer and commercial products. Regulations under section 183(e) must require the "best available control," considering technological and economic feasibility and health, environmental, and energy impacts.

14.3 Definition and Description of Small Entities

Small entities include small businesses, small organizations, and small governmental jurisdictions. For the purposes of assessing the impacts of the proposed rule on small entities, a small entity is defined as: (1) a small business that meets the definition for business based on the Small Business Administration's (SBA) size standards (see Table 14-1); (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field. Table 14.3-1 provides an overview of the primary SBA small business categories potentially affected by this regulation.

Table 14.3-1. Small Business Definitions

Industry	Defined as small entity by SBA if less than or equal to:	NAICS^a Codes
Light-duty vehicles: - vehicle manufacturers (including small volume manufacturers)	1,000 employees	336111
- independent commercial importers	\$6 million annual sales	811111, 811112, 811198
- alternative fuel vehicle converters	100 employees 1,000 employees \$6 million annual sales	424720 335312 811198
Gasoline fuel refiners	1500 employees ^b	324110
Portable Fuel Container Manufacturers: - plastic container manufacturers - metal gas can manufacturers	500 employees 1,000 employees	326199 332431

a North American Industrial Classification System

b We have included in past fuels rulemakings a provision that, in order to qualify for the small refiner flexibilities, a refiner must also have a company-wide crude refining capacity of no greater than 155,000 barrels per calendar day. We have included this criterion in the small refiner definition for a nonroad diesel sulfur program as well.

14.3.1 Description of Highway Light-Duty Vehicle Manufacturers

To assess how many companies potentially affected by the proposed rule would meet these small-entity criteria, EPA first created a database comprised of firms specified in its Certification and Fuel Economy Information System (CFEIS) and EPA's independent commercial importers (ICIs) and converters lists. Sales and employment data for the parent companies of these firms was then found using the Dunn and Bradstreet (and Hoover's) and ReferenceUSA databases. Due to the range of manufacturers and ICIs, there are several NAICS codes in which these businesses report their sales, but the majority of the manufacturers and ICIs are listed under the following major groups, respectively: 33611x - *Automobile and Light Duty Motor Vehicle Manufacturing* and 8111xx - *Automotive Repair and Maintenance*. For alternative fuel converters, there did not appear to be a prominent NAICS code, and the codes range from 335312 - *Motor and Generator Manufacturing* (and/or 336312 - *Gasoline Engine and Engine Parts Manufacturing*) to 811198 - *All Other Automotive Repair and Maintenance*.

14.3.2 Description of Gasoline Refiners

Information about the characteristics of gasoline refiners comes from sources including the Energy Information Administration within the U.S. Department of Energy, oil industry literature, and industry searches using Hoover's and Dun and Bradstreet. These refiners fall under the *Petroleum Refineries* category, NAICS code 324110.

14.3.3 Description of Portable Gasoline Container Manufacturers

For manufacturers of portable fuel containers, the SBA size thresholds are 500 employees for manufacturers of plastic containers and 1,000 employees for metal gas cans. The NAICS codes are 326199 - *All Other Plastics Product Manufacturing* and 332431 - *Metal Can Manufacturing*. Discussions with industry and searches in databases such as LexisNexis Academic and ReferenceUSA (electronic resources) enabled EPA to determine how many businesses would be impacted by the proposed rule and may meet the small-entity criteria. The latter two sources provided sales and employment data for the parent companies of these businesses.

14.4 Summary of Small Entities to Which the Rulemaking Will Apply

The following sections discuss the small entities (namely highway light-duty vehicle manufacturers, gasoline refiners, and portable gasoline container manufacturers) directly regulated by the proposed rule.

14.4.1 Highway Light-Duty Vehicle Manufacturers

Based on a preliminary assessment, EPA has identified a total of about 50 businesses that would be covered by the new light-duty vehicle standards. However, due to a lack of sales or employment data, a few of these entities could not be confirmed for consideration in EPA's analysis. Out of these 50 businesses, 21 entities (or 42 percent) fit the SBA criterion of a small business. EPA estimates that these entities comprise about 0.02 percent of the total light-duty vehicle sales in the U.S. for the year 2004.^A

As described earlier, in addition to major vehicle manufacturers, three distinct categories of businesses characterize the above 50 total entities (and the subset of 21 small businesses): small volume manufacturers (SVMs), ICIs, and alternative fuel vehicle converters. The below discussion gives more detail on these categories.

14.4.1.1 Vehicle Manufacturers

In most cases, new standards for light-duty vehicles would minimally increase the costs of vehicle manufacturers to produce these vehicles. In addition to major vehicle manufacturers, SVMs are companies that sell less than 15,000 vehicles per year, as defined in past EPA regulations, and this status allows vehicle models to be certified under a slightly simpler certification process.

Using information from a preliminary assessment of the industry, EPA identified a total of 30 businesses that manufacture vehicles (including about 14 SVMs). The top 10 vehicle manufacturers comprise 97 percent of the U.S. total market (there were about 16.9 million total U.S. sales for the year 2004), while the other 20 manufacturers (including SVMs), ICIs, and converters make up the remaining 3 percent. Of the 30 manufacturers (14 SVMs included), 5 SVMs fit the SBA definition of a small entity. These five small businesses comprise about 0.01

^A Sales information used for this analysis was 2004 data.

percent of the total vehicle sales for the year 2004. Also, these businesses produce vehicles for small niche markets, and nearly all of these entities manufacture limited production, high performance cars. In addition, there are four other SVMs that EPA believes meet the SBA small-entity criterion, but since they are foreign businesses, they cannot be considered in the SBREFA work.

14.4.1.2 Independent Commercial Importers

ICIs are companies that hold a Certificate (or Certificates) of Conformity permitting them to import nonconforming vehicles and to modify these vehicles to meet U.S. emission standards. ICIs are not required meet the emission standards in effect when the vehicle is modified, but instead they must meet the emission standards in effect when the vehicle was originally produced (with an annual production cap of a total of 50 light-duty vehicles and trucks).^B ICIs would likely have minimal increased cost from the new standards.

Currently 10 ICIs hold EPA certificates, and EPA believes all 10 of these businesses would meet the small-entity criteria as defined by SBA. In 2004, collectively they had a total U.S. sales of about 300 vehicles, and thus, they comprised about 0.002 percent of the total vehicle sales. ICIs modify vehicles for a small niche market, and many of these vehicles are high performance cars.

14.4.1.3 Alternative Fuel Vehicle Converters

Alternative fuel vehicle converters are businesses that convert gasoline or diesel vehicles to operate on alternative fuel (e.g., compressed natural gas), and converters must seek a certificate for all of their vehicle models. Model year 1993 and newer vehicles that are converted are required to meet the standards applicable at the time the vehicle was originally certified. Converters would likely have minimal increased cost from the new light-duty vehicle standards.

As with SVMs and ICIs, converters serve a small niche market, and these businesses primarily convert vehicles to operate on compressed natural gas (CNG) and liquefied petroleum gas (LPG), on a dedicated or dual fuel basis. Based on information from a preliminary assessment, EPA identified a total of 10 alternative fuel vehicle converters. Together these 10 businesses had about 0.02 percent of the total vehicle sales in the U.S. for the year 2004. Out of these 10 businesses, 6 meet the SBA small-entity criteria. These 6 converters represent about 0.01 percent of the total vehicle sales. In addition, EPA believes three of the other converters fit the SBA small-entity definitions, but since they are foreign businesses, they cannot be considered in the SBREFA work.

14.4.2 Gasoline Refiners

^B To prevent entities from circumventing Tier 2 light-duty vehicle standards, EPA capped at 50 each ICI's annual production of vehicles meeting the original production (OP) year standards when OP year standards are less stringent than standards that apply during the year of modification. This does not impact the number of vehicles an ICI may produce that are certified to the standards that apply during the year of modification.

Based on a preliminary industry characterization and 2003 gasoline production data, we believe that there are about 116 domestic refineries producing gasoline (however, due to a lack of publicly available sales or employment data, some of these entities could not be confirmed for consideration in the analysis). Our current assessment is that 15 refiners, owning 17 refineries, meet SBA's criterion of having 1,500 employees or less. Due to dynamics in the refining industry (i.e., mergers and acquisitions) and decisions by some refiners to enter or leave the gasoline market, the actual number of refiners producing gasoline (and, thus, the number of small refiners that ultimately qualify for small refiner status under today's program) could be much different than these initial estimates.

14.4.3 Portable Gasoline Container Manufacturers

As discussed earlier, annual sales nationwide of gas cans are about 21 million units. 98 percent are plastic containers, and 2 percent are metal gas cans. Blow molding equipment is relatively costly and large production volumes are necessary to operate profitably. These factors seem to limit the number of companies engaged in producing fuel containers, leading to significant industry consolidation over the past decade (25 manufacturers in 1985 to 5 in 2004). EPA has identified 4 domestic manufacturers and 1 foreign manufacturer. Of these 4 U.S. manufacturers, 3 meet the SBA definition of a small entity. One small business accounted for over 50 percent of the U.S. sales in 2002, and the other small entities comprised about 10 percent of U.S. sales.

14.5 Related Federal Rules

The primary federal rules that are related today's proposal are the first MSAT rule (*Federal Register Vol. 66, p. 17230, March 29, 2001*), the Tier 2 Vehicle/Gasoline Sulfur rulemaking (*Federal Register Vol. 65, p. 6698, February 10, 2000*), the fuel sulfur rules for highway diesel (*Federal Register Vol. 66, p. 5002, January 18, 2001*) and nonroad diesel (*Federal Register Vol. 69, p. 38958, June 29, 2004*), and the Cold Temperature Carbon Monoxide Rulemaking (*Federal Register Vol. 57, p. 31888, July 17, 1992*).^C

In addition, the Evaporative Emissions Streamlining Direct Final Rulemaking was issued on December 8, 2005 (*Federal Register Vol. 70, page 72917*). For gas cans, OSHA has safety regulations for gasoline containers used in workplace settings. Cans meeting OSHA requirements, commonly called safety cans, are exempt from the California program, and EPA is planning to exempt them from the EPA program.

Section 1501 of the Energy Policy Act of 2005 (EPAAct) requires that EPA implement a Renewable Fuels Standard (RFS) program. Beginning in 2006, this program will require increasing volumes of renewable fuel to be used in gasoline, until a total of 7.5 billion gallons is required in 2012. The most prevalent renewable fuel to be used in gasoline is expected to be ethanol.

^C The Cold Temperature Carbon Monoxide rulemaking is the basis for the 20° F test procedure which EPA would use.

There are a wide variety of potential impacts of ethanol blending on MSAT emissions that will be evaluated as part of the RFS rulemaking process. In general, as ethanol use increases, other sources of octane in gasoline can decrease. Depending on these changes, the impact on benzene emissions will vary. The specific effects of ethanol on benzene will be addressed in the Regulatory Impact Analysis (RIA) to this rule and in future rulemakings, such as the RFS rule.

14.6 Projected Reporting, Recordkeeping, and Other Compliance Requirements

As with any emission control program, the Agency must have the assurance that the regulated entities will meet the emissions standards and all related provisions. For highway light-duty vehicles, EPA is proposing to continue the reporting, recordkeeping, and compliance requirements prescribed for this category in 40 CFR 86. Key among these requirements are certification requirements and provisions related to reporting of production, emissions information, flexibility use, etc.

For a fuel control program, EPA must have assurance that fuel produced by refiners meets the applicable standard. EPA expects that recordkeeping, reporting and compliance provisions of the proposed rule will be fairly consistent with those in place today for other fuel programs. For example, reporting likely would involve the submission of pre-compliance reports, which are already required under the highway and nonroad diesel rules, to give EPA general information on refiners' plans and the projected credit availability.

For gas cans, there currently are not federal emission control requirements, and thus, EPA is proposing new reporting and record keeping requirements for gas can manufacturers that would be subject to the proposed standards. EPA is proposing requirements that would be similar to those in the California program, such as submitting emissions testing information, reporting of certification families, and use of transition provisions.

14.7 Regulatory Alternatives

The Panel's findings and discussions are based on the information that was available during the term of the Panel and issues that were raised by the SERs during the outreach meetings and in their written comments. It was agreed that EPA should consider the issues raised by the SERs (and issues raised in the course of the Panel) and that EPA should consider the comments on flexibility alternatives that would help to mitigate any negative impacts on small businesses. Alternatives discussed throughout the Panel process include those offered in the development of the upcoming rule. Though some of the recommended flexibilities may be appropriate to apply to all entities affected by the rulemaking, the Panel's discussions and recommendations are focused mainly on the impacts, and ways to mitigate adverse impacts, on small businesses. A summary of the Panel's recommendations, along with those provisions that we are actually proposing in this action, are detailed below. A full discussion of the regulatory alternatives and hardship provisions discussed and recommended by the Panel, all written

comments received from SERs, and summaries of the two outreach meetings that were held with the SERs can be found in the SBREFA Final Panel Report.¹ In addition, all of the flexibilities (or ‘transition provisions’) that were proposed in the rulemaking for small businesses, as well as those for all entities that may be affected by the rulemaking, are described in the preamble to the proposed rule.

14.7.1 Highway Light-Duty Vehicle Manufacturers

The Panel developed a wide range of regulatory alternatives to mitigate the impacts of the rulemaking on small businesses, and recommended that we propose and seek comment on the flexibilities. Described below are the flexibility options recommended by the Panel and our proposed regulatory alternatives.

14.7.1.1 Regulatory Flexibility Options for Highway Light-Duty Vehicle Manufacturers

14.7.1.1.1 SBAR Panel Recommendations

For certification purposes (and for the sake of simplicity for Panel discussions regarding flexibility options), SVMs include ICIs and alternative fuel vehicle converters since they sell less than 15,000 vehicles per year. Similar to the flexibility provisions implemented in the Tier 2 rule, the Panel recommended that we allow SVMs (includes all vehicle small entities that would be affected by this rule, which are the majority of SVMs) the following flexibility options for meeting cold temperature VOC standards and evaporative emission standards:

For cold VOC standards, the Panel recommended that SVMs simply comply with the standards with 100 percent of their vehicles during the last year of the four-year phase-in period. For example, if the standard for light-duty vehicles and light light-duty trucks (0 to 6,000 pounds GVWR) were to begin in 2010 and end in 2013 (25%, 50%, 75%, 100% phase-in over 4 years), the SVM provision would be 100 percent in 2013. If the standard for heavy light-duty trucks and medium-duty passenger vehicles (greater than 6,000 pounds GVWR) were to start in 2012 (25%, 50%, 75%, 100% phase-in over four years), the SVM provision would be 100 percent in 2015.

In regard to evaporative emission standards, the Panel recommended that since the evaporative emissions standards will not have phase-in years, we allow SVMs to simply comply with standards during the third year of the program (we have implemented similar provisions in past rulemakings). For a 2009 start date for light-duty vehicles and light light-duty trucks, SVMs would need to meet the evaporative emission standards in 2011. For a 2010 implementation date for heavy light-duty trucks and medium-duty passenger vehicles, SVMs would need to comply in 2012.

14.7.1.1.2 EPA’s Proposed Regulatory Flexibility Options

For cold VOC standards, we are proposing the Panel’s recommendation that SVMs comply with the standards with 100 percent of their vehicles during the last year of the four-year

phase-in period, which would be 100 percent in model year 2013. Also, since the proposed standard for heavy light-duty trucks and medium-duty passenger vehicles would start in 2012 (25%, 50%, 75%, 100% phase-in over four years), we are proposing that the SVM provision would be 100 percent in model year 2015.

We believe that the Panel's recommendation regarding evaporative emission standards is reasonable. Therefore, for a 2009 model year start date for light-duty vehicles and light light-duty trucks, we are proposing that SVMs meet the evaporative emission standards in model year 2011. For a model year 2010 implementation date for heavy light-duty trucks and medium-duty passenger vehicles, we propose that SVMs comply in model year 2012.

Although the SBAR panel did not specifically recommend it, we are also proposing to allow ICIs to participate in the averaging, banking, and trading program for cold temperature NMHC fleet average standards (as described in Table VI.B-1 of the preamble), but with appropriate constraints to ensure that fleet averages will be met. The existing regulations for ICIs specifically bar ICIs from participating in emission related averaging, banking, and trading programs unless specific exceptions are provided (see 40 CFR 85.1515(d)). The concern is that they may not be able to predict their sales and control their fleet average emissions because they are dependent upon vehicles brought to them by individuals attempting to import uncertified vehicles. However, an exception for ICIs to participate in an averaging, banking, and trading program was made for the Tier 2 NOx fleet average standards, and today we are proposing to apply a similar exception for the cold temperature NMHC fleet average standards.

If an ICI is able to purchase credits or to certify a test group to a family emission level (FEL) below the applicable cold temperature NMHC fleet average standard, we would permit the ICI to bank credits for future use. Where an ICI desires to certify a test group to a FEL above the applicable fleet average standard, we would permit them to do so if they have adequate and appropriate credits. Where an ICI desires to certify to an FEL above the fleet average standard and does not have adequate or appropriate credits to offset the vehicles, we would permit the manufacturer to obtain a certificate for vehicles using such a FEL, but would condition the certificate such that the manufacturer can only produce vehicles if it first obtains credits from other manufacturers or from other vehicles certified to a FEL lower than the fleet average standard during that model year.

We do not believe that ICIs can predict or estimate their sales of various vehicles well enough to participate in a program that would allow them leeway to produce some vehicles to a higher FEL now but sell vehicles with lower FELs later, such that they were able to comply with the fleet average standard. We also cannot reasonably assume that an ICI that certifies and produces vehicles one year would certify or even be in business the next. Consequently, we are proposing that ICIs not be allowed to utilize the deficit carryforward provisions of the proposed ABT program.

14.7.1.2 Hardship Provisions for Highway Light-Duty Vehicle Manufacturers

14.7.1.2.1 SBAR Panel Recommendations

In addition, the Panel recommended that hardship flexibility provisions be extended to SVMs for the cold temperature VOC and evaporative emission standards. The Panel recommended that SVMs be allowed to apply (EPA would need to review and approve application) for up to an additional 2 years to meet the 100 percent phase-in requirements for cold VOC and the delayed requirement for evaporative emissions. Appeals for such hardship relief must be made in writing, must be submitted before the earliest date of noncompliance, must include evidence that the noncompliance will occur despite the manufacturer's best efforts to comply, and must include evidence that severe economic hardship will be faced by the company if the relief is not granted.

14.7.1.2.2 EPA's Proposed Hardship Provisions

We are proposing the Panel recommendation that hardship provisions be extended to SVMs for the cold temperature NMHC and evaporative emission standards as an aspect of determining the greatest emission reductions feasible. These entities could, on a case-by-case basis, face hardship more than major manufacturers (manufacturers with sales of 15,000 vehicles or more per year). We are proposing this provision to provide what could prove to be a needed safety valve for these entities, and we are proposing that SVMs would be allowed to apply for up to an additional 2 years to meet the 100 percent phase-in requirements for cold NMHC and the delayed requirement for evaporative emissions. As with hardship provisions for the Tier 2 rule, we are proposing that appeals for such hardship relief must be made in writing, must be submitted before the earliest date of noncompliance, must include evidence that the noncompliance will occur despite the manufacturer's best efforts to comply, and must include evidence that severe economic hardship will be faced by the company if the relief is not granted.

14.7.2 Gasoline Refiners

14.7.2.1 Flexibility Alternatives for Gasoline Refiners

14.7.2.1.1 SBAR Panel Recommendations

Discussed below are the options that the Panel recommended during the SBREFA process.

Delay in Standards

The Panel recommended that a four-year delay period should be proposed for small refiners. Such a delay would be needed in order to allow for a review of the ABT program, as discussed below, to occur one year after implementation but still three years prior to the small refiner compliance deadline. It was also noted that a delay option would also allow for small refiners to be able to expand their production capacity. The Panel is in support of allowing for refinery expansion and recommends that refinery expansion be provided for in the rule.

Early ABT Credits

The Panel recommended that early credit generation be afforded to small refiners that take some steps to meet the benzene requirement prior to the effective date of the standard. Depending on the start date of the program, and coupled with the four-year delay option, a small refiner could have a total credit generation period of five to seven years. The Panel also stated that it supports allowing refiners (small, as well as non-small, refiners) to generate credits for reductions to their benzene emissions levels (unlike prior fuels programs which have given early credits only to refiners who have fully met the applicable standard early).

Extended Credit Life

The Panel recommended that EPA propose a program that does not place a limit on credit life. During Panel discussions, it was noted that some Panel members were not in support of limited credit life for the general program. When the Final Panel Report was written, EPA intended to proceed with a proposal that did not place a limit on credit life, therefore the Panel did not make a specific recommendation on the concept of extended credit life. However, based on discussions during the Panel process, the Panel would have recommended that extended credit life be offered to small refiners if the general ABT program were to include a limit on credit life.

Program Review

The Panel recommended a review of the credit trading program and small refiner flexibility options one year after the general program starts. Such a review could take into account the number of early credits generated, as well as the number of credits generated and sold during the first year of the program. Further, requiring the submission of pre-compliance reports from all refiners would likely aid EPA in assessing the ABT program prior to performing the review. The Panel noted that, combined with the recommended four-year delay, a review after the first year of the program would still provide small refiners with the three years that it was suggested would be needed for these refiners to obtain financing and perform engineering and construction for benzene reduction equipment. Should the review conclude that changes to either the program or the small refiner provisions are necessary, the Panel recommended that EPA also consider some of the suggestions provided by the small refiners (their comments are located in Appendix E of the Final Panel Report), such as:

- » the general MSAT program should require pre-compliance reporting (similar to EPA's highway and nonroad diesel rules);
- » following the review, EPA should revisit the small refiner provisions if it is found that the credit trading market does not exist, or if credits are only available at a cost that would not allow small refiners to purchase credits for compliance; and,
- » the review should offer ways either to help the credit market, or help small refiners gain access to credits (e.g., EPA could 'create' credits to introduce to the market, EPA could impose additional requirements to encourage trading with small refiners, etc.).

In addition, the Panel recommended that EPA consider in this rulemaking establishing an additional hardship provision to assist those small refiners that cannot comply with the MSAT with a viable credit market. (This suggested hardship provision was also

suggested by the small refiners in their comments, located in Appendix E of the Final Panel Report). This hardship provision could address concerns that, for some small refineries, compliance may be technically feasible only through the purchase of credits and it may not be economically feasible to purchase those credits. This flexibility could be provided to a small refiner on a case-by-case basis following the review and based on a summary, by the refiner, of technical or financial infeasibility (or some other type of similar situation that would render its compliance with the standard difficult). This hardship provision might include further delays and/or a slightly relaxed standard on an individual refinery basis for a duration of two years; in addition, provision might allow the refinery to request, and EPA grant, multiple extensions of the flexibility until the refinery's material situation changes. The Panel also stated that it understood that EPA may need to modify or rescind this provision, should it be implemented, based on the results of the program review.

14.7.2.1.2 EPA's Proposed Regulatory Alternatives

In general, we have chosen to propose the Panel's recommended regulatory flexibility provisions. The following is a discussion of the proposed provisions, as well as an additional provision that we have decided to propose based on additional analysis following the SBREFA Panel process.

Delay in Standards

We are proposing the Panel's recommendation that small refiners be allowed to postpone compliance with the proposed benzene standard until January 1, 2015, which is four years after the general program begins. While all refiners are allowed some lead time before the general proposed program begins, we believe that in general small refiners would still face disproportionate challenges. Previous EPA fuel programs have included two to four year delays in the start date of the effective standards for small refiners, consistent with the lead time we believe appropriate here. The proposed four-year delay for small refiners would help mitigate these challenges. Further, a four-year delay would be needed in order to allow for a review of the ABT program, as discussed below, to occur one year after the general MSAT program implementation but still roughly three years prior to the small refiner compliance deadline.

Early ABT Credit Generation Opportunities

We are proposing the Panel's recommendation that early credit generation be afforded to small refiners that take steps to meet the benzene requirement prior to their effective date. While we have anticipated that many small refiners would likely find it more economical to purchase credits for compliance, some have indicated they will make reductions to their gasoline benzene levels to meet the proposed benzene standard. Further, a few small refiners indicated that they would likely do so earlier than would be required by the January 1, 2015 proposed small refiner start date. Small refiner credit generation is governed by the same rules as the general program, described in the preamble to the proposed rule in Section VII.E, the only difference being that small refiners have an extended early credit generation period of up to seven years. Early credits could be

generated by small refiners making qualifying reductions from June 1, 2007 through December 31, 2014, after which program credits could be generated indefinitely for those that over-comply with the standard.

Extended Credit Life

As discussed in the preamble, we are now proposing that there be a limit on credit life. However, in order to encourage the trading of credits to small refiners, we are proposing that the useful life of credits be extended by 2 years if they are generated or used by small refiners. This is meant to directly address concerns expressed by small refiners during the Panel process that they would be unable to rely on the credit market to avoid large capital costs for benzene control. While this flexibility option was not specifically recommended by the Panel, we believe that the Panel would be in support of such an option.

ABT Program Review

We are proposing the Panel's recommendation that a review of the ABT program be performed within the first year of the general MSAT program (i.e., by 2012). To aid the review, we are also proposing the requirement that all refiners submit refinery pre-compliance reports annually beginning June 1, 2008. In order for EPA to carry out this review, we believe that refiners' 2011 annual compliance report will also need to contain additional information, including credits generated, credits used, credits banked, credit balance, cost of credits purchased, and projected credit generation and use through 2015. When combined with the four-year delay option, this will afford small refiners with the knowledge of the credit trading market's status before they would need to invest capital.

As suggested by the Panel, we are further requesting comment on elements to be included in the ABT program review, and suggested actions that could be taken following such a review. Such elements could include:

- Revisiting the small refiner provisions if it is found that the credit trading market does not exist to a sufficient degree to allow them to purchase credits, or that credits are only available at a cost-prohibitive price.
- Options to either help the credit market, or help small refiners gain access to credits.

With respect to the first element, the SBAR Panel recommended that we consider establishing an additional hardship provision to assist those small refiners that are unable to comply with the benzene standard even with a viable credit market. Such a hardship provision would address the case of a small refinery for which compliance may be feasible only through the purchase of credits, but it is not economically feasible for the refiner to do so. This hardship would be provided to a small refiner on a case-by-case basis following the review and based on a summary, by the refiner, of technical or financial infeasibility (or some other type of similar situation that would render its compliance with the standard difficult). This hardship provision might include further delays and/or a slightly relaxed standard on an individual refinery basis for up to two years. Following the two-year relief, a small refiner would be allowed to request multiple extensions of the hardship until the refinery's material situation changes. We are

proposing the inclusion of such a hardship provision which could be applied for following, and based on the results of, the ABT program review.

With respect to the second element, the Panel recommended that we develop options to help the credit market if it is found (following the review) that there is not an ample supply of credits or that small refiners are having difficulty obtaining credits. These options could include the ‘creation’ of credits by EPA that would be introduced into the credit market to ensure that there are additional credits available for small refiners. Another option the Panel discussed to assist the credit market was to impose additional requirements to encourage trading with small refiners. These could include a requirement that a percentage of all credits sold be set aside and only made available for small refiners. Similarly, we could require that credits sold, or a certain percentage of credits sold, be made available to small refiners before they are allowed to be sold to any other refiners. Options such as these would help to ensure that small refiners were able to purchase credits.

14.7.2.2 Hardship Provisions for Gasoline Refiners

14.7.2.2.1 SBAR Panel Recommendations

During the Panel process, we stated that we intended to propose the extreme unforeseen circumstances hardship and extreme hardship provisions (for all gasoline refiners and importers), similar to those in prior EPA fuels programs. A hardship based on extreme unforeseen circumstances would provide short term relief due to unanticipated circumstances beyond the control of the refiner, such as a natural disaster or a refinery fire. An extreme hardship would provide short-term relief based on extreme circumstances (e.g., extreme financial problems, extreme operational or technical problems, etc.) that impose extreme hardship and thus significantly affect a refiner's ability to comply with the program requirements by the applicable dates. The Panel agreed with the proposal of such provisions and recommended that we include them in the MSAT rulemaking.

14.7.2.2.2 EPA’s Proposed Hardship Provisions

We are in fact proposing the two hardship provisions that we stated above (and that the Panel recommended). These provisions would, at our discretion, permit a refiner to seek a temporary waiver from the MSAT benzene standard under certain rare circumstances. These waiver provisions are similar to provisions in prior fuel regulations, and would again be available all refiners regardless of size. We continue to believe that providing short-term relief to those refiners that need additional time due to hardship circumstances helps to facilitate the adoption of the overall MSAT program for the majority of the industry. However, we do not intend for hardship waiver provisions to encourage refiners to delay planning and investments they would otherwise make. Elements required for hardship waivers are discussed in more detail in Section VII.E.2 of the preamble.

14.7.3 Portable Gasoline Container Manufacturers

14.7.3.1 Flexibility Alternatives for Portable Gasoline Container Manufacturers

14.7.3.1.1 SBAR Panel Recommendations

Since nearly all gas can manufacturers are small entities and they account for about 60 percent of sales, the Panel suggested that the flexibility options be offered to all gas can manufacturers. The flexibilities that the Panel recommended are detailed below.

Design Certification

The Panel recommended that we propose to permit gas can manufacturers to use design certification in lieu of running any or all of the durability aging cycles. Manufacturers could demonstrate the durability of their gas cans based in part on emissions test data from designs using the same permeation barriers and materials. Under a design-based certification program a manufacturer would provide evidence in the application for certification that their container would meet the applicable standards based on its design (e.g., use of a particular permeation barrier). The manufacturer would submit adequate engineering and other information about its individual design such that EPA could determine that the emissions performance of their individual design would not be negatively impacted by slosh, UV exposure, and/or pressure cycling (whichever tests the manufacturer is proposing to not run prior to emissions testing).

Broaden Certification Families

This approach would relax the criteria used to determine what constitutes a certification family. It would allow small businesses to limit their certification families (and therefore their certification testing burden), rather than testing all of the various size containers in a manufacturer's product line. Some small entities may be able to put all of their various size containers into a single certification family. Manufacturers would then certify their containers using the "worst case" configuration within the certification family. To be grouped together, containers would need to be manufactured using the same materials and processes even though they are of different sizes. The Panel recommended that EPA propose this approach.

Additional Lead-time

It was recognized that time would be needed for the gas can SERs to gather information to fully evaluate whether or not additional lead-time might be needed beyond the proposed 2009 start date, the Panel recommended that we discuss lead-time in the proposal and request comment on the need for additional lead-time to allow manufacturers to ramp up to a nationwide program.

Product Sell-through

As with past rulemakings for other source sectors, the Panel recommended that EPA propose to allow normal sell through of gas cans as long as manufacturers do not create stockpiles of noncomplying gas cans prior to the start of the program.

14.7.3.1.2 EPA's Proposed Regulatory Alternatives

Based upon the comments received from gas can small entity representatives during the SBREFA Panel process, we are proposing to include the Panel-recommended flexibility and hardship provisions for gas can manufacturers. As stated previously, nearly all gas can manufacturers (3 of 5 manufacturers as defined by SBA) are small entities and they account for about 60 percent of sales, the Panel recommended to extend the flexibility options and hardship provisions to all gas can manufacturers, and we are proposing that these flexibilities be offered to all gas can manufacturers. Moreover, implementation of the program would be much simpler by doing so.

14.7.3.3 Hardship Provisions for Portable Gasoline Container Manufacturers

14.7.3.3.1 SBAR Panel Recommendations

The Panel recommended that we propose two types of hardship programs for small gas can manufacturers. The recommended provisions are:

Allow small manufacturers to petition EPA for limited additional lead-time to comply with the standards. A manufacturer would have to make the case that it has taken all possible business, technical, and economic steps to comply but the burden of compliance costs or would have a significant adverse effect on the company's solvency. Hardship relief could include requirements for interim emission reductions. The length of the hardship relief would be established during the initial review and would likely need to be reviewed annually thereafter.

Permit small manufacturers to apply for hardship relief if circumstances outside their control cause the failure to comply (i.e. supply contract broken by parts supplier) and if failure to sell the subject containers would have a major impact on the company's solvency. The terms and timeframe of the relief would depend on the specific circumstances of the company and the situation involved. As part of its application, a company would be required to provide a compliance plan detailing when and how it would achieve compliance with the standards under both types of hardship relief.

14.7.3.3.2 EPA's Proposed Hardship Provisions

We are proposing that the two types of hardship provisions recommended by the Panel be extended to gas can manufacturers. These entities could, on a case-by-case basis, face hardship, and we are proposing these provisions to provide what could prove to be a needed safety valve for these entities.

14.8 Projected Economic Effects of the Proposed Rulemaking

Based on our outreach, fact-finding, and analysis of the potential impacts of our regulations on small businesses, the Panel concluded that small refiners in general would likely experience a significant and disproportionate financial hardship in reaching the objectives of the proposed benzene control program. Refinery modeling (of all refineries), indicates significantly higher refining costs for small refiners. Chapter 9 of this Draft RIA discusses our analysis and estimated costs for U.S. refiners complying with the proposed benzene control program. In this section we are reporting our estimated costs, based on the analysis discussed in Chapter 9, for small refiners to comply with the proposed benzene control program. To provide a perspective on these cost estimates, we compare the small refiner costs for complying with the proposed benzene standard to those for the U.S. refining industry.

We make this cost comparison between the small refiners and the U.S. refining industry in two different ways. First, we compare the small refiner costs to the costs of the U.S. refineries with the costs averaged only over the refineries, or their gasoline volume, projected to reduce their benzene levels. This will describe the average per-refinery costs in each group. Making this distinction is important because while virtually all the small refiners are expected to take action to reduce their benzene levels for the proposed benzene control program, there are 27 U.S. refineries, many of which are large, that are not expected to take action because their benzene levels are already very low. None of the small refiners have low benzene levels.

We are also comparing the small refiner per-gallon cost against the U.S. refining industry's per-gallon cost with the costs averaged over the entire U.S. refinery gasoline volume. This is a useful comparison to make because small refiners often sell their gasoline into a fungible distribution market which essentially requires them to compete with all refiners, regardless of how they comply with a future benzene standard. This cost comparison helps to demonstrate the cost issues faced by small refiners. Table 14.8-1 contains the small refiner costs as well as the costs for the entire U.S. refining industry, expressed in those two ways, for complying with the proposed benzene control standard.

Table 14.8-1.
Small Refiner and U.S. Refining Industry Costs for Proposed Benzene Control Standard
(\$2002, 7% ROI before taxes)

	Per-Refinery Capital Costs (\$ million)	Per-Refinery Total Annual Costs (\$ million/yr)	Per-Gallon Costs (c/gal)
Small Refiners	1.2	0.80	0.36
U.S. Refineries Reducing their Gasoline Benzene	5.6	1.9	0.20
All U.S. Refiners	-	-	0.13

As shown in Table 14.8-1, small refiner per-gallon costs are 75 percent higher than the subgroup of U.S. refineries which are projected to reduce their gasoline benzene levels. The small refiner per-gallon costs are over 150 percent higher than the U.S. refining industry's per-gallon costs when the U.S. refining industry's costs are amortized over all gasoline produced by all U.S. refiners. There are two reasons which we identified why small refiners experience higher costs. First, small refineries are faced with poorer economies of scale and higher labor costs for installed capital investments. It is widely understood that the smaller the refining unit installed, the higher the per-gallon cost incurred for that investment. Also most refineries owned by small refiners are located in areas of the country where labor costs are higher for construction, contributing to their higher costs. The second reason why small refiners experience higher costs is that except for a single small refinery, small refiners are not expected to have sufficient access to benzene markets to be able to take advantage of benzene extraction which is the lowest cost means for achieving benzene reduction in our cost model. It is important to point out though that the ABT program reduces the per-gallon cost difference between the small refiners and the rest of the U.S. refining industry. This is because small refiners can achieve a small amount of benzene reduction using benzene precursor rerouting coupled with isomerization and then purchase credits for showing compliance with the average benzene standard. Larger refiners can install the capital for deeper benzene reduction, generate credits and sell the credits to the small refiners. Our cost analysis captures the cost for all physical changes necessary to meet the proposed benzene standard. It does not consider the "cost" to credit purchasers, nor does it consider the "revenue" to credit sellers.

The cost analysis applies certain industry averages for several inputs because refinery-specific information was not available. However, during the SBREFA process, several small refiners shared specific refinery operations information with us to allow us to calibrate our refinery cost model using this information. Because this information was provided after the cost analysis was completed, we were unable to use this information to adjust our cost analysis for the proposal. We will integrate this information in the refinery model and re-estimate the small refiner costs for the final rule. It should not materially impact the overall costs estimates which are built on average assumptions, but may impact assessments for individual refineries.

Of the entities with publicly available sales data, we were able to estimate annual costs, and thus use this information to complete a preliminary screening analysis. Using a cost-to-sales ratio test (a ratio of the estimated annualized compliance costs to the value of sales per company) for the 15 small refiners, we found that: 53 percent (8 refiners) of small refiners were affected at less than 1 percent of their sales (i.e., the estimated costs of compliance with the proposed rule would be less than 1 percent, of their sales), 33 percent (5 refiners) were affected at greater than 1 percent but less than 3 percent, and 13 percent (2 refiners) were affected at greater than 3 percent of their sales. Therefore, we believe that our proposed flexibility provisions are necessary to help mitigate these impacts to small refiners.

In regard to the highway light-duty vehicle requirements of this proposed rule, small vehicle entities (which includes manufacturers, ICIs and converters) in general would likely be impacted similarly as large entities. As we discussed earlier in Chapters 5 and 8 of this Draft RIA, we are proposing to align EPA evaporative emission standards with California LEV II

standards, and essentially all manufacturers certify 50-state evaporative systems that meet both sets of standards. We do not expect additional costs from this requirement since we expect that manufacturers will continue to produce 50-state evaporative systems. In limited cases where vehicle small entities may not currently produce 50-state systems, the proposed flexibilities and hardship relief for small entities, as described earlier in Section 14.7, would reduce the burden on these entities.

In addition, as described earlier in Chapters 5 and 8, the proposed cold temperature exhaust (VOC) emission standards for light-duty vehicles can be achieved through calibration alone. It would only require up-front research and development costs, and certification burden is likely to be small due to existing cold carbon monoxide testing requirements. Therefore, the new cold temperature VOC standard would be expected to add less than \$1 on average to the cost of vehicles. In general, small vehicle entities would likely experience similar impacts as large entities. Also, as described earlier in Section 14.7, the flexibility and hardship provisions would reduce the burden of the new cold VOC standard on small vehicle entities.

For gas cans, as discussed earlier in Section 14.7, nearly all manufacturers are small entities, thus, we are proposing that the flexibility and hardship provisions be offered to all gas can manufacturers. Moreover, small gas can manufacturers would likely be impacted by the new standards similarly as the large manufacturers. Automatically closing spouts and permeation control are expected to be utilized to meet the proposed evaporative emissions standard for gas cans. As discussed in Chapters 10 and 13, all gas cans range in price from \$3 to \$7 (typical sizes are 1, 2, 5, and 6 gallons), and the added variable and fixed costs for the new gas cans with auto-close spouts and permeation control is estimated to be about \$2.70 per unit on average. We anticipate that manufacturers will be able to pass on these costs without a significant impact on gas can sales. In addition, the flexibilities and hardship relief proposed for all gas can manufacturers would reduce the burden of the proposed new standards on small and large manufacturers.

For a complete discussion of the economic impacts of the proposed rulemaking, see Chapter 13, the economic impact analysis chapter, of this Draft Regulatory Impact Analysis.

References for Chapter 14

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1. Final Report of the Small Business Advocacy Review Panel on EPA's Planned Proposed Rule-- Mobile Source Air Toxics: Control of Hazardous Air Pollutants from Mobile Sources, November 8, 2005.