ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 80

[AMS-FRL–5528–5]

RIN 2060–AG06

Regulation of Fuels and Fuel Additives: Certification Standards for Deposti Control Gasoline Additives

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action establishes a certification program for detergent additives used to control the formation of port fuel injector deposits (PFID) and intake valve deposits (IVD) in gasoline engines. In accordance with Clean Air Act section 211(l), an interim detergent program has been in effect since January 1, 1995, requiring the use of detergents in virtually all gasoline used in the U.S. This final rule contains standardized test procedures and performance standards to ensure that such detergent gasoline will provide an effective level of protection against PFID and IVD. The regulations include a variety of certification options and compliance alternatives, affording cost-effective flexibility to regulated parties.

The effective control of deposits in gasoline engine and fuel supply systems has been shown to reduce the emission of nitrogen oxides, hydrocarbons, and carbon monoxide in engine exhaust, while enhancing fuel economy. Accordingly, the intent of the detergent certification program is to help achieve the primary public health and environmental protection goals of the Clean Air Act.

DATES: *Effective Date:* This rule is effective September 3, 1996.

The information collection requirements in 40 CFR 80.157(f)(5), 80.160(b)(2), 80.164(b)(3), 80.170(f)(5), and 80.173(b)(2) have not been approved by the Office of Management and Budget (OMB) and will not be effective until OMB has approved them, and EPA publishes a document announcing their approval.

The incorporation by reference of certain publications listed in the regulations are approved by the Director of the Federal Register as of September 3, 1996.

Compliance Dates: Compliance with the requirements of the detergent certification program is mandatory for detergent manufacturers, detergent blenders, and gasoline distributors on July 1, 1997, and on August 1, 1997 for gasoline retailers and wholesale purchaser-consumers, and any other party selling or transferring gasoline to the ultimate consumer.

ADDRESSES: Materials relevant to this final rule are contained in Public Docket No. A–91–77 at the following address: Air Docket Section (LE–131), room M–1500, 401 M Street SW., Washington, DC 20460; phone (202) 260–7548; fax (202) 260–4000. The docket is open for public inspection from 8:00 a.m. until 5:30 p.m., except on government holidays. As provided in 40 CFR Part 2, a reasonable fee may be charged for copying docket materials. Electronic copies of major documents associated with this rulemaking are available from the EPA internet site and via dial-up modem on the Office of Air Quality Planning and Standards (OAQPS) Technology Transfer Network Bulletin Board System (TTNBBS). Details on how to access these sources are included in Section X of this preamble.

FOR FURTHER INFORMATION CONTACT: For information related to qualification of detergent additives for use in complying with gasoline detergency requirements contact: Jeffrey A. Herzog, U.S. EPA (FED), Fuels and Energy Division, 2565 Plymouth Road, Ann Arbor, MI 48105; Telephone: (313) 668–4227, Fax: (313) 741–7869. For information related to the registration of fuels and fuel additives under 40 CFR Part 79 contact: James W. Caldwell, U.S. EPA (6406J), Fuels and Energy Division, 401 M Street SW., Washington, DC 20460; Telephone: (202) 233–9303, Fax: (202) 233–9556. For information related to enforcement contact: Judith Lubow, U.S. EPA, Office of Enforcement and Compliance Assurance, Western Field Office, 12345 West Alameda Parkway Suite 214, Lakewood, CO 80228; Telephone: (303) 969–6483, FAX: (303) 969–6490.

SUPPLEMENTARY INFORMATION:

Regulated Entities

Entities potentially regulated by this action are those involved with the production, distribution, and sale of gasoline and gasoline detergent additives. Regulated categories and entities include:

Category	Examples of regulated entities
Industry	Detergent manufacturers, Detergent transporters, Gasoline refiners and importers, Gasoline terminals, Detergent blenders, Gasoline truckers, and Gasoline retailers and wholesale purchaser-consumers.

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 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 organization is regulated by this action, you should carefully examine the applicability requirements in § 80.161(a), the detergent certification requirements in § 80.161(b), the program controls and prohibitions in § 80.168, and other related program requirements in subpart G, title 40, of the Code of Federal Regulations (CFR). If you have any questions regarding the applicability of this action to a particular entity, consult the persons listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

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I. Background

A. Rulemaking History

Section 211(l) of the Clean Air Act (CAA) specifies that, beginning January 1, 1995, all gasoline sold or transferred to the consumer must contain additives to prevent the accumulation of deposits in engines or fuel supply systems. The CAA charged EPA with the task of establishing specifications for such deposit control (detergent) additives.[1] As described below, today's final rule is the fourth in a series of rulemaking actions which EPA has taken to develop a gasoline detergent program that is both effective and reasonable, and to ensure ample opportunity for public participation in the regulation development process.

On December 6, 1993, EPA published a Notice of Proposed Rulemaking (NPRM, 58 FR 64213) which proposed that all gasoline, with limited exceptions, must contain additives to control port fuel injector deposits (PFID) and intake valve deposits (IVD). When fully implemented, the proposed program would establish a detergent additive certification program, including vehicle-based test procedures, specified test fuels, deposit control performance standards, and related enforcement provisions. However, recognizing that the regulated industry would need adequate lead time to complete such certification requirements, simpler interim requirements were proposed for use at the start of the program. While gasoline would be required to contain properly registered detergent additives beginning January 1, 1995, the procedures and criteria established to qualify a detergent additive for use in the interim program would be less rigorous than the standardized performance requirements envisioned for the full detergent certification program.

Rules governing the two phases of the program were not finalized at the same time. The rules for the Interim Detergent Program were published on October 14, 1994 (59 FR 54678), while today's rule establishes the final detergent certification program. EPA took these actions in two separate rulemaking steps for two main reasons. First, the effective date for the CAA's mandate to use deposit control additives was January 1, 1995. This required rapid promulgation of the interim program rule after close of the NPRM comment period, to give the regulated parties as much lead time as possible. However, to ensure consistency with industry practices, EPA wished to incorporate standardized test procedures in the detergent certification rule. At the time the interim program was promulgated, the American Society for Testing and Materials (ASTM) had just completed its IVD control test procedure (ASTM D 5500), but anticipated several more months' delay before completing development of its PFID control test

[1] EPA uses the term ''detergent'' to refer broadly to the additives required to meet the deposit control requirements established in this program. It is not meant to specify a design standard or to limit the kind of engine or fuel supply system deposits that are, or would properly be, the subject of regulation under sections 211(l) or 211(c).

procedure (later published as ASTM D–5598). EPA judged that a delay in finalization of the detergent certification program would be appropriate to permit adoption of both ASTM procedures.

The second reason for delaying promulgation of the certification program was to provide additional opportunity for public discussion and evaluation of potential regulatory requirements for control of combustion chamber deposits (CCD). Following publication of the NPRM, a public hearing was held (in Ann Arbor, Michigan on January 11, 1994) and written comments were accepted until March 11, 1994. Much of this public commentary pertained to the CCD issue. The comments were split between those who believed CCD controls were unneeded and infeasible and those who maintained that CCD problems were already significant and could be expected to grow worse with increased use of PFID and IVD detergents, and that CCD controls were both needed and feasible.

To further the resolution of this important issue, EPA published a Notice of Reopening of the Comment Period (59 FR 66860, December 28, 1994). The Reopening Notice requested additional information regarding the potential impacts of CCD on emissions, fuel economy, and driveability; the possible relationship(s) between IVD and PFID detergent additive levels, unwashed gum levels, and CCD formation; and possible CCD control approaches. The notice also sought additional public input on other key concerns raised during the initial comment period, including certification test fuel issues and various implementation and enforcement provisions proposed for the certification program.

EPA's summary and analysis of public comments on issues relevant to the interim provisions of the detergent program were published in a section of the preamble to the interim program final rule. Public comments on general provisions of the detergent certification program, including those received following the NPRM as well as those sent to EPA in response to the Reopening Notice, are extensively reviewed and analyzed in a separate document accompanying this rule.[2] A synopsis of EPA's evaluation of the CCD issue is provided below in Section II, and comments on other key topics are briefly described in the relevant sections of this notice. However, the reader is directed to the separate Summary and Analysis of Comments for detailed presentation and evaluation of these issues.

Public comments concerning the detergent program's enforcement issues have been handled in a somewhat different manner. Following promulgation of the interim detergent program, the regulated industry submitted a number of questions about the practical implementation of some of the enforcement provisions of the rule. In response, EPA provided guidance on various enforcement provisions, in a series of four Detergent Rule Question and Answer Documents (''Q&A Documents'').[3] Today's rule incorporates a variety of regulatory changes that are being made to codify the guidance. Section VIII of this preamble contains a synopsis of the key issues related to these regulatory changes, along with EPA's analysis of other enforcement-related comments not discussed in previously published documents.

B. Statutory Provisions and Legal Authority

Recognizing that deposits in gasoline engines and fuel supply systems can increase harmful exhaust emissions and adversely affect vehicle fuel economy and driveability, Congress specified in section 211(l) of the Clean Air Act that: ''Effective beginning January 1, 1995, no person may sell or dispense to an ultimate consumer in the United States, and no refiner or marketer may directly or indirectly sell or dispense to persons who sell or dispense to ultimate consumers in the United States, any gasoline which does not contain additives to prevent the accumulation of deposits in engines or fuel supply systems * * *'' Section 211(l) further provides that ''the Administrator shall promulgate a rule establishing specifications for such additives.''

In section 211(l), Congress delegated to EPA rulemaking authority to set specifications for detergent additives to prevent the accumulation of deposits in engines or fuel supply systems. To implement this grant of authority, EPA has reasonably interpreted the several ambiguous elements of this provision. EPA believes that its interpretations will promote the intent of Congress in adopting this provision. First, the statute states that the additives must ''prevent the accumulation of deposits.'' This term is ambiguous; it could be interpreted to mean that the specifications must ensure that an additive will not allow any deposits whatsoever to form, or that an additive must be able to prevent all deposits and eliminate existing deposits, or that an additive could be acceptable if it would provide a reasonable level of protection against accumulation of new deposits but would not make a great impact on any existing deposits. In addition, section 211(l) refers to ''deposits in engines or fuel supply systems.'' Deposits can form in almost any part of an engine or its fuel supply system, *e.g.* the intake valves, the port fuel injectors, the combustion chamber, the carburetor, the exhaust valves, and so on. Congress, however, did not specify which particular deposits must be controlled by the additives mandated by section 211(l), nor did it state that EPA must set specifications such that additives would prevent *all* possible deposits which could possibly form anywhere in an engine or fuel supply system. Finally, Congress did not define the term ''specifications'' in any way. This term could be interpreted to mean the additives' specific chemical composition, or performance characteristics, or the general type or amount of additive which must be added to gasoline. Therefore, the Agency believes that Congress left EPA with broad discretion and authority to implement those provisions in an appropriate regulatory framework that achieves the general goals of Congress in adopting section 211(l).

Looking at the Act's legislative history, EPA believes that the primary purpose of section 211(l) is to reduce emissions from gasoline-fueled vehicles and engines and to prevent engine wear or damage which could lead to increased emissions. Section 211(l) was added to the 1990 Clean Air Act Amendments during conference. Prior to the conference sessions, detergent additive provisions were included in the bills passed by each house of Congress only as items in different provisions for reformulated gasoline (RFG).

The bill passed by the House of Representatives contained a requirement that cleaner gasolines ''shall contain additives to prevent the accumulation of deposits in engine fuel supply systems.'' S. 1630, 101st Cong., 2d Sess., (1990). The Report of the House Committee on Energy and Commerce described the purpose of the RFG provision, stating that ''(s)uch cleaner gasoline must achieve the greatest reduction in ozone-forming VOC and air toxic emissions achievable through reformulation of conventional gasoline, taking into consideration the cost of achieving such emissions reductions and health, environmental

[2] See ''Summary and Analysis of Comments on General Provisions of the Detergent Certification Program'', Docket item V–B–02.

[3] Docket numbers IV–C–08, IV–C–09, IV–C–10, and IV–C–11.

and energy impacts.'' H.R. Rep. 490, 101st Cong. 2d sess., 297 (1990). Given the stated purpose of the RFG provision to reduce vehicle emissions, and the express requirement that RFG contain detergent additives, EPA believes that the House intended that EPA would require additives in RFG for the purpose of reducing emissions.

The bill passed by the Senate included detergents as an alternative to RFG regulations, as follows:

> In the event that the Administrator does not promulgate the [fuel quality] regulations required by this paragraph, effective January 1, 1994, it shall be unlawful to sell, offer for sale, supply, offer for supply, dispense, transport, or introduce into commerce any fuel for use in a gasoline-powered vehicle unless such fuel contains additives effective in preventing the accumulation of deposits in fuel-injected engines.

S. 1630, 101st Cong. 2d sess., (1990). The Report of the Senate Committee on Environment and Public Works expressed the purpose of the RFG regulations as follows:

> Subsection (k)(1) requires the Administrator to establish fuel quality standards to maximize engine performance and to minimize emissions from the combustion of fuels in vehicles and engines. Engines may prematurely wear out due to impurities in the fuel. Such fuel can clog fuel injectors, cause additional corrosion and otherwise affect engine performance, and cause an increase in air pollution emissions from the engine. *In addition, fuel additives, such as detergents, are available to maximize the performance of engines and minimize emissions.*

S. Rep. No. 228, 101st Cong. 1st Sess., 116 (1989) (emphasis added). Thus, EPA believes that the primary legislative intent behind the precursors of section 211(l) was to prevent or reduce vehicle emissions.

The bill reported by the conference committee adopted an RFG provision which was similar to the House provision, although it no longer expressly required detergent additives in RFG. This provision required the Administrator to promulgate regulations imposing the more stringent of two options, either a formula, which would require detergent additives, or a performance standard for VOC emissions. In addition, this bill included the current section 211(l), which requires detergent additives in all gasoline sold after January 1, 1995. There is no further explanation anywhere in the legislative history of the addition of section 211(l) to the bill. H.R. Conf. Rep. No. 952, 101st Cong., 2d Sess., (1990).

EPA believes that it is reasonable to assume that the intent of Congress with respect to section 211(l) was essentially the same as its intent with respect to the prior iterations of the similar provisions in the RFG arena, *i.e.* to reduce vehicle and engine emissions, and to prevent engine wear which may contribute to such emissions. Section 211(l) provides EPA with broad authority to implement its provisions within an appropriate regulatory scheme that furthers the goals of Congress in adopting this provision.

In accordance with this interpretation, the certification program specifies the engine and fuel supply system deposits that must be controlled, the level of control that is required, and the responsibilities of various persons in the manufacturing, refining, and distribution systems to see that gasoline used by the ultimate consumer is properly additized. The certification program also establishes specifications for detergents for different gasoline pools depending on their deposit-forming tendency, and a specification for ''zero additive'' if a particular segregated gasoline pool is shown to have very little deposit-forming tendency. Like the existing interim detergent program, the certification program specifies that all parties involved in the chain of gasoline production, distribution and sale are responsible for compliance with the gasoline detergency requirements. The certification program also continues the interim program's precedent of applying certain requirements of the detergent program directly to manufacturers, distributors, and carriers of detergent additives, prior to, and after the blending of such additives into gasoline.

As discussed in the preamble to the interim rule, EPA is issuing today's final rule under the authority of sections 211 (a), (b), and (c) as well as section 211(l). These sections of the CAA underscore EPA's authority to require the submittal of compositional information and test data directly from manufacturers of gasoline detergent additives. Section 211(b)(1) authorizes EPA to require manufacturers to submit information on the composition and use of fuels and fuel additives designated under section 211(a). In 40 CFR part 79, gasoline fuels and any additives intended for use in gasoline fuels have been so designated. Furthermore, 211(b)(2)(B) specifically calls for fuel additive registrants to ''furnish the description of any analytical technique that can be used to detect and measure any additive in such fuel * * *'' EPA's authority to require the submittal of data from the detergent additive manufacturer is also supported by the provisions of Section 114 of the CAA, which authorizes the Administrator to collect any information which may reasonably be required to carry out the purposes of the Act from any person subject to the provisions of the Act.

Section 211(c)(1) provides EPA broad authority to regulate the introduction into commerce, production, distribution, and sale of fuels and fuel additives to protect the public health and welfare. Since the interim and certification program rules have been adopted pursuant to section 211(c) as well as section 211(l), the preemption provisions of section 211(c)(4)(A) act to prohibit certain state fuel controls. A specific exception to the Federal preemption is applicable in the case of California, which has established its own detergent program as permitted under section 211(4)(B). Also, pursuant to section 211(c)(4)(C), a state could adopt a detergent program as part of its State Implementation Plan if it were necessary to achieve a national primary or secondary ambient air quality standard. The relationship between the Federal and California detergent gasoline programs is discussed further in Section V below.

Section 211(c)(1) requires a finding that either (A) any emission product of a fuel or fuel additive causes, or contributes, to air pollution which may reasonably be anticipated to endanger the public health or welfare, or (B) emission products of a fuel or fuel additive will impair to a significant degree the performance of any emission control device or system. EPA has determined that emissions from gasoline use cause or contribute to such harmful air pollution (58 FR 64213, 64215). This rule is the second phase in EPA's attempt to control such emissions through restrictions on the production and sale of gasoline and gasoline detergent additives. This rule requires that detergent additives manufactured for use in gasoline meet certain standards, and requires that gasoline be blended with such additives at the proper rate. This will reduce emissions from gasoline use that cause or contribute to harmful air pollution.

Before EPA can regulate under its section 211(c)(1)(A) authority, section 211(c)(2)(A) requires the Agency to consider ''other technologically or economically feasible means of achieving emission standards under section (202).'' This has been interpreted as requiring consideration of regulation through motor vehicle standards under section 202 prior to regulation of fuels or fuel additives under section 211(c)(1)(A). *Ethyl Corp.* v. *Environmental Prot. Agcy.*, 541 F.2d 1, 32 (D.C.Cir. 1976). This does not establish a mandatory preference for

vehicle controls over fuel controls, but instead calls for the good faith consideration of motor vehicle standards before imposition of fuel controls (541 F.2d at 32, n. 66). This merely reflects Congress' recognition that fuel controls under section 211(c)(1)(A) might logically involve controls on fuel composition itself, while vehicle standards under section 202 are generally performance standards regulating vehicle emissions and not the design or structure of the vehicle. Fuel controls might therefore lead to greater government involvement in the regulation of the manufacturing process than would be expected from vehicle controls (541 F.2d at 11, n. 13). Congress addressed this concern by requiring Agency ''consideration'' of vehicle standards under section 202 before imposition of fuel controls under section 211(c)(1)(A). It is important to note that the Administrator must in good faith consider such vehicle controls, but retains full discretion in deciding whether to adopt either fuel or vehicle controls, or both (541 F.2d at 32, n. 66).

In evaluating motor vehicle controls under section 202 in this context, EPA has found that vehicle manufacturers already have an incentive to design vehicles to reduce deposit formation. Deposits in fuel injectors and intake valves affect a vehicle's driveability as well as its emissions. Because consumers often look to a vehicle's manufacturer to resolve driveability problems, manufacturers who address such issues proactively through design modifications have a market advantage over those who do not.

Another issue that EPA considered with respect to motor vehicle controls is that deposits affect vehicles currently in use. Any motor vehicle standard which EPA might impose to prevent accumulation of deposits therefore would not have an impact until new model vehicles replaced a significant portion of the existing vehicle fleet. In addition, EPA is barred by section 202(i)(3)(C) from imposing new standards on light duty vehicles until after model year 2003; thus any emissions or other standard for such vehicles would not even be introduced into the U.S. vehicle market for almost a decade. A fuel control related to the gasoline, however, will help reduce emissions from the entire in-use fleet of motor vehicles, as well as from non-road engines and vehicles that use gasoline.

Finally, 211(l) requires that all gasoline sold to the ultimate consumer after January 1, 1995 contain detergent additives to prevent accumulation of deposits, and requires the Administrator to establish specifications for such additives. Therefore, whether or not it was appropriate to establish vehicle standards, it would not be possible for EPA to set vehicle standards alone.

Given these circumstances, EPA has determined that it is appropriate to promulgate this additive regulation now, regardless of whether motor vehicle controls are adopted later under section 202. This decision is based on the following facts. First, motor vehicle manufacturers are already designing engines to prevent susceptibility to deposit formation due to market incentives. Second, the requirement to sell additized gasoline will have immediate impacts on emissions from gasoline combustion from both motor vehicles and non-road engines and vehicles, as the detergents will begin preventing deposit formation as soon as the fuel is used. There also may be some additional clean-up benefit of using detergent additized gasoline in engines which already have deposits. Finally, EPA is required by law to promulgate this regulation under the separate authority of section 211(l).

C. Overview of This Action

With this final rule, EPA is establishing a detergent additive certification program which modifies many of the provisions of the existing interim detergent additive program. As mentioned above, the interim program requires compliance with the CAA mandate that all U.S. gasoline be treated with deposit control additive prior to its use by the consumer. To qualify for use as a detergent under the interim program, an additive must be properly registered (under 40 CFR part 79) and must have undergone some testing to demonstrate its ability to control deposit formation when used at the concentration (treat rate) recommended by its manufacturer. However, the interim program does not require specific test procedures and test fuels to be used for this purpose, nor does it include specific deposit control performance standards which must be met. Today's rule establishes these specific requirements for detergent certification, along with changes to the regulations regarding enforcement of the certification program. Further discussion of the enforcement provisions is presented below in Section VIII.

Broadly speaking, the detergent additive certification program follows the overall performance-based approach proposed in the NPRM. To be certified for use in compliance with gasoline detergency requirements, an additive must demonstrate the ability to meet specified standards of IVD and PFID control in the context of prescribed test fuels and standardized, vehicle-based test procedures. The practical result of this testing is to ascertain an additive treat rate that can meet the required standards of performance. The certification treat rate constitutes the lowest concentration at which the additive may be used by detergent blenders in formulating gasoline for sale to or use by the consumer.

As proposed in the NPRM, the certification program includes a number of voluntary certification options. These options permit a detergent additive to be tested in one or more test fuels, resulting in different minimum treat rate requirements for different types of gasoline (e.g., oxygenated or nonoxygenated, premium or regular) and/or different gasoline pools (e.g., national, PADD, or segregated supplies). The flexibility provided by these options is described in more detail in Section IV of this preamble.

While generally similar to the proposed approach, the detergent certification program finalized today differs somewhat from the NPRM in certain key areas. Most of these changes are the result of efforts by EPA to streamline and simplify the requirements of the program. For example, the NPRM proposed an approach based on a two-tier certification structure, such that gasolines of very high severity (i.e., tendency to produce IVD and PFID), would be required to be additized only with detergents that had undergone testing in specified high-severity test fuels. Implementation of this provision would not only require separate detergent certification for use in generic and high-severity gasolines, but would also require ongoing evaluations of the severity of gasoline supplied to the distribution terminals to determine if detergent certified for severe gasoline would be needed or if generic detergent would suffice. As described further in Section IV.B, EPA now believes that the potential benefit of the two-tier certification approach is far outweighed by the associated implementation burdens. Thus, today's rule finalizes a single-tier certification approach and does not contain special requirements for gasoline of very high severity.

Another departure from the proposed approach pertains to the number and composition of test fuels required for each certification option. Under the proposed rule, to qualify for national certification or for any certification option, a detergent additive would be required to undergo testing in a matrix of up to four test fuels. Each test fuel

was to contain a different combination of relatively high levels of specified fuel parameters (i.e., ''severity factors'') and oxygenate components. In addition, test fuels meeting the required specifications would have been required to be located among commercial fuel supplies, not specially formulated to specification from refinery blend stocks.

For reasons explained at length in the Summary and Analysis of Comments, and summarized below in Section VI, the test fuel requirements adopted today are considerably simpler than the proposed requirements. The final regulations require testing of a detergent additive in only one specified test fuel for any given certification option, and permit test fuels to be formulated to specification from refinery blend stocks rather than requiring them to be taken from finished gasoline stock located by sampling among commercial gasoline supplies. However, to ensure that test fuels resulting from this simplified process will adequately challenge the detergent additive, the regulations require certifiers to test the unadditized test fuels to demonstrate their deposit-forming tendency, prior to their use in additive certification testing.

A third set of provisions which reflect change from the proposed provisions is in the important area of basic information requirements. For example, the information which additive manufacturers must submit regarding the composition of their detergent additives has been changed to be more consistent with typical additive manufacturing practices (see Section III.A). Moreover, the proposed registration requirements for fuel blenders that relate specifically to the usage of detergent additives are not retained in this final rule (see Section III.B).

Subsequent sections of this preamble describe the major provisions of the detergent certification program in more detail, including further discussion of the way in which the requirements differ from those proposed in the NPRM.

D. Applicability

The applicability of detergency requirements to various categories of gasoline is based on the statutory language of § 211(l), which explicitly includes ''any gasoline'' in its mandate. EPA has interpreted this to include fuel commonly or commercially known as gasoline, that is produced for use in motor vehicles or engines or nonroad vehicles or engines. Thus, the applicability of this program is essentially the same as under the interim detergent program. The regulations apply to all gasoline, including conventional, reformulated (RFG), oxygenated, and leaded [4] gasoline, whether intended for or used by highway or nonroad vehicles or engines. Marine fuel, gasoline used for military purposes, gasoline service accumulation fuel under the Federal motor vehicle control program (for emissions control system deterioration testing purposes), and factory fill fuels are also required to comply with detergency requirements.

In the Reopening Notice, EPA requested comment on whether detergent-additized gasoline should continue to be required for the gasoline portion of E85 or M85 alcohol-based fuels, in view of comment from the automobile industry that some detergent additives might be incompatible with such fuels. In response, the American Petroleum Institute (API) commented that EPA should allow industry to resolve compatibility issues through the marketplace. API pointed out that E85 and M85 fuels are used in flexible-fuel vehicles, which are expected to be operated at times on ''ordinary'' detergent gasoline. Thus, due to mixing in the fuel tank, alcohol-based incompatibility problems which might arise between some detergents and alcohol-based fuels would need to be addressed even if the gasoline portion of the alcohol blends were exempt from detergency requirements. EPA agrees with API and, in this rule, has not changed the detergent applicability requirements of the interim program as they relate to the gasoline portion of alcohol-based fuels.

As in the interim program, the only categories of gasoline which EPA is exempting from detergency requirements are racing fuel, aviation fuel, emissions certification fuel, and fuel used for research and development purposes. In the case of the racing fuel exemption, this final rule removes the interim program's restriction that only gasoline sold or dispensed on the premises of a racing facility can qualify. In response to comments stating that the interim rule's restriction is inconsistent with the actual handling and use of racing fuel, EPA decided to permit racing fuel to qualify for the detergency exemption regardless of location, provided that the fuel is distributed only to racing vehicles that are restricted to nonhighway use, and dispensed only from retail pumps clearly labeled as containing racing gasoline (see Section VIII.B.7).

E. Program Start-Up and Compliance Dates

Full compliance with the provisions of the detergent certification program is not mandatory for approximately a year's time. This one-year start-up period is provided to allow certifiers sufficient lead time to complete their testing and reporting requirements, for detergent blenders to obtain supplies of certified additives and establish associated administrative and quality control support procedures, and for gasoline retailers to obtain sufficient quantities of properly additized gasoline. Since the interim program is to continue in effect until the certification program becomes mandatory, today's rule also revises enforcement provisions of the interim program to make these provisions more efficient and commensurate with those in the parallel certification program. The revisions to the interim program in today's rule become effective September 3, 1996.

Mandatory compliance with the requirements of the detergent certification program is required for different parties in the gasoline and detergent distribution system at different times, based on their position in the distribution chain. As of July 1, 1997, detergent manufacturers must sell only properly certified detergents to their detergent blending customers. Also as of July 1, 1997, detergent blenders must blend certified detergent at the prescribed concentration into all gasoline they distribute, and distributors must sell or transfer only gasoline and PRC properly additized with certified detergents. To facilitate the proper disposal of residual non-certified detergent additive, EPA will allow such detergent to be blended into gasoline in combination with certified detergent until January 1, 1998, provided that the noncertified detergent was in the detergent blender's possession prior to July 1, 1997 and that it accounts for less than 10 percent of a detergent storage tank's delivered capacity (i.e. no more than 10 percent of the detergent blended into a batch of gasoline). In addition, the total detergent blended into a batch of gasoline must be sufficient to attain the minimum concentration recommended by the additive manufacturer for the certified detergent.

Effective August 1, 1997, all gasoline sold or transferred to the ultimate

[4] Leaded gasoline was banned from use in highway vehicles as of January 1, 1996, and the EPA regulations no longer contain a generally applicable definition of leaded gasoline. However leaded fuel is still permitted to be used in nonroad engines, and leaded gasoline is subject to gasoline detergency requirements. In this final rule, therefore, EPA has included a definition of leaded gasoline (at § 80.140) that is applicable only to 40 CFR subpart G. This definition is effectively the same as the previous, generally applicable definition.

consumer must be additized with certified detergents in conformity with any applicable detergent use restrictions. An extra month is allowed from the time detergent blenders are required to begin blending certified detergent to the time gasoline retailers are required to sell gasoline containing certified detergent, to provide adequate time for gasoline containing noncertified detergent in the retailer's storage tanks to be replaced with properly additized gasoline. This approach is consistent with that used successfully in other EPA fuels programs, such as in the regulation of gasoline volatility (54 FR 11869, March 22, 1989), and the reformulated gasoline program (59 FR 7841, February 16, 1994).

Prior to July 1, 1997, additive manufacturers and detergent blenders may comply either with the interim detergent program regulations or the detergent certification program regulations finalized today. EPA anticipates that, many detergent additives will be certified prior to the final deadline,[5] and certified additives will inevitably be delivered to fuel terminals and blended into gasoline before the deadline. If a detergent is certified prior to July 1, 1997, the requirements of the certification program will apply to the use of that detergent as of the effective certification date. In most instances, the use of a certified additive prior to the required date will not significantly change the detergent blender's requirements under the interim rule. The provisions of both programs require the detergent blender to add detergent to gasoline at a treat rate no less than the minimum concentration recommended by the additive manufacturer (also called the lowest additive concentration or LAC),[6] and require the additive manufacturer to provide adequate blending instructions to the detergent blender, including the minimum recommended concentration reported to EPA in accordance with the applicable detergent certification requirements. Thus, while the specified minimum amount of detergent may well change after certification, the nature of the additization and record-keeping activities of the detergent blender will usually not be greatly affected.

Exceptions will occur in the case of detergent additives which have been certified under options that place restrictions on the type of gasoline in which the additive may be used (see Section IV). For example, a detergent may be certified with two different treat rates, one for use in all gasoline, and one for use only in nonoxygenated gasoline. In such an instance, if the detergent blender chooses to use the detergent at the treat rate certified for use in nonoxygenated gasoline, then the blender is required to conform to the certification program provisions which govern the handling of use-restricted certified detergents, even if this occurs before July 1, 1997. In the cited example, where the treat rate certified for nonoxygenated gasoline is to be used, the blender must use the detergent only to additize nonoxygenated gasoline. In addition, the blender must indicate on the outgoing product transfer document that the gasoline has been additized with detergent restricted only to nonoxygenated gasoline, thus informing downstream parties of the existing restrictions. In essence, each party in the distribution chain that handles gasoline additized with a detergent under a use-restricted certification must observe the product transfer document and all other applicable requirements of the certification program. Further discussion on additive manufacturer and detergent blender responsibilities in regard to the handling of use-restricted detergents can be found in Section VIII.

II. Combustion Chamber Deposit Control

In the NPRM, EPA did not propose any requirements for combustion chamber deposit (CCD) control because of uncertainty regarding the scope of the problem and the lack of suitable performance test procedures and performance standards. Subsequently, some commenters expressed concern that a Federal requirement for PFID and IVD control might encourage detergent overuse, which could potentially exacerbate CCD concerns. Other commenters, however, agreed that regulatory control of CCD was not appropriate due to the lack of data and adequate standardized performance test procedures and standards. As a result, EPA requested additional input from affected industries (see Docket item IV–E–35, ''Summary of Additional Comments on Combustion Chamber Deposits''), and published a notice formally reopening the comment period on the issue of CCD control. A detailed discussion of the comments and EPA's response may be found in the Summary and Analysis of Comments document located in the docket for this rulemaking. A brief synopsis of this discussion appears below.

After carefully reviewing all of the public comment and currently available information, EPA is not able to determine that a CCD control requirement is warranted. Available information on the impacts of CCD on emissions, fuel economy, and driveability are inadequate to draw conclusions regarding the costs and benefits of requiring additives for CCD control. In addition, no appropriate performance test procedures and standards or effective surrogate parameters for measuring CCD have yet been developed. Further study may indeed provide more information on which EPA could base a CCD control requirement. Thus, EPA will continue to evaluate CCD issues and will reconsider adopting a CCD control requirement at a later date if appropriate.

For these reasons, EPA is very pleased that, under the auspices of the Coordinating Research Council (CRC), members of the automotive and petroleum industries have embarked on a joint research program to investigate some of the controversial issues which still remain about the causes, effects, and accurate evaluation of CCD. The work of the CRC is expected to help elucidate the potential need for and environmental benefits of CCD control, and to investigate vehicle parameters that influence vehicle response to CCD in preparation for potential development of standard test procedures for measuring CCD and evaluating a detergent's ability to effectively control CCD. EPA believes that the products of CRC's work will greatly facilitate EPA's investigation of whether CCD control is necessary and feasible.

A. CCD Impacts on Vehicle Emissions

Most members of the petroleum and detergent additives industry commented that uncertainties persist regarding the scope of a CCD-related emission problem and that test procedures and standards are lacking. They stated that EPA should defer action until research planned by the CRC has been completed.

Automotive industry commenters stated that the CCD-related emissions impact is sufficiently well demonstrated to compel EPA to implement a CCD control requirement; this statement was supported by limited data and literature

[5] The certification date will be the earlier of the receipt by the certifier of acknowledgement by EPA of its receipt of the certification letter, or 60 days after the certifying party receives the return receipt from the postal carrier acknowledging that the letter was delivered to EPA.

[6] However, both the interim and certification programs contain a special provision allowing the detergent blender to use a detergent at a lower concentration than that recommended by the additive manufacturer, provided that the detergent blender informs EPA of this intent and can provide supporting data to substantiate the deposit control effectiveness of the detergent at the specified lower concentration.

references. Others stated that EPA should implement a requirement to ensure that detergent additives are used that can remove existing CCD and prevent the formation of CCD, because the vehicle octane requirement increase (ORI) caused by CCD results in higher emissions.

While EPA agrees that there is sufficient data to demonstrate a probable link between CCD formation and increased NO_X emissions, the magnitude of the NO_X emissions impact has not been sufficiently defined to allow EPA to determine how substantial an impact it is. The impact of CCD on hydrocarbon and carbon monoxide emissions is even more uncertain. Characterization of the magnitude of the CCD emissions impact is important so that EPA can evaluate the costs and effectiveness of potential CCD control measures. At this time, EPA is not in a position to determine that CCD, and particularly any detergent additive contribution to CCD, causes vehicle emission and performance problems warranting regulatory control. The weight of the public comment indicates that, for major marketers, representing 60–70 percent of gasoline sold in the U.S., EPA's IVD and PFID performance mandate will not cause a change in the types of detergent additives used or result in appreciably increased concentrations of these detergents. As for the rest of the market, EPA's IVD and PFID performance requirements are expected to bring the entire industry up to the levels of deposit control protection provided by major marketers prior to implementation of regulatory controls. Because EPA's IVD and PFID performance requirements are expected to bring the entire market up to a level of deposit control protection previously achieved by major marketers, EPA believes that these requirements will not create or exacerbate CCD problems. Thus, in the absence of sufficient data to support the need for a requirement to control the contribution of detergent additives to CCD, EPA disagrees with automobile industry comments that EPA is obligated to take immediate action in implementing such a requirement.

B. CCD Energy Impacts

As mentioned above, several commenters stated that CCD contributes to vehicle octane requirement increase (ORI), i.e., the need for higher octane fuels to prevent engine knock as the engine ages. Higher octane fuels require more crude oil to produce, thus causing an increase in total refinery and vehicle energy use. Several commenters also stated that if ORI were reduced, engine design might be further optimized for improved fuel economy using gasoline of the octane quality currently on the market.

The Department of Energy (DOE) conducted an evaluation of CCD control additive technologies that also have ORI claims, and of the potential energy and vehicle and refinery emissions implications of ORI control.[7] DOE concluded that a correlation exists between CCD and ORI. However, DOE also stated that automobile manufacturers generally design their vehicles to accommodate a worst case ORI condition, and provide a built-in margin to ensure that the vehicle can continue to operate on the fuel specified after the octane requirement stabilizes at about 15,000 miles. DOE stated that most automobiles do not require a higher octane fuel than recommended by the manufacturer. It is true that exceeding the octane specification of the fuel recommended by the manufacturer, if not compensated for by the use of a higher octane fuel, could cause engine knock in vehicles that are not equipped with knock sensors or retardation of engine timing in engines that are equipped with knock sensors. Both engine responses could result in inefficient combustion, and attendant reduced fuel economy. However, at this time, EPA agrees with DOE that the available information does not indicate widespread exceedance of the ORI tolerance built-in by engine manufacturers. Thus, EPA can not conclude that an ORI-based CCD control requirement should be implemented to prevent an adverse impact on fuel economy.

On the broader energy use question, the DOE analysis suggested that the potential changes in crude oil use combined with questionable effects on vehicle fuel economy would not make a compelling argument to support the position that a reduction in CCD would result in a cost-effective overall reduction in fuel consumption, total gasoline refinery and motor vehicle emissions or energy use, or dependency on foreign oil. In conducting its assessment, DOE took into account refinery processing efficiencies, energy yield, and vehicle fuel consumption. DOE stated that, based on their evaluation of available data, the potential direct vehicle emission effects of CCD control should be the primary factor considered in evaluating whether it is appropriate for EPA to implement a CCD control requirement. EPA agrees that the available information is inadequate to conclude that a reduction in ORI would result in a cost-effective reduction in total energy use or emissions from gasoline refineries and motor vehicles.

C. CCD Interference

Automotive industry commenters urged EPA to implement a CCD control requirement to prevent potential negative impacts of CCD on driveability, including combustion chamber deposit interference (CCDI). They stated that CCDI problems are expected with the increased use of IVD control additives.

The petroleum industry stated that there is no documented basis for EPA to consider a CCD control measure to prevent CCDI associated with detergent additive overuse. They stated that data indicates that manufacturing tolerances play a predominant role in the CCDI problem, and cited a study indicating that engines with a 0.9 mm squish gap design were unaffected by CCDI, while off-specification tolerances as low as 0.3 mm were virtually guaranteed to produce the engine knock associated with CCDI regardless of the fuel used.

EPA agrees that available data indicates that manufacturing tolerances play a predominant role in the CCDI problem. EPA therefore does not believe that there are compelling reasons at this time to implement a CCD control requirement in order to prevent CCDI-related driveability problems. Moreover, the IVD and PFID requirements implemented with this rulemaking are not expected to increase levels of CCD relative to those seen in current vehicles using major petroleum marketers' gasoline.

D. Unwashed Gum Levels and CCD

Several automobile industry commenters stated that, as a surrogate for CCD control, EPA should implement an interim limit on gasoline unwashed gum levels to prevent adverse side effects that might result from EPA's IVD and PFID performance mandates. One commenter presented an analysis of gasoline survey data which, it stated, indicates a correlation between increasing unwashed gum levels in commercial gasolines and the use of increasing concentrations of IVD detergent additives. Data was submitted by another commenter which, it stated, indicated that certain IVD and PFID additives contribute to CCD formation, and showed a correlation between unwashed gum levels and CCD.

On the other hand, several fuel and additive industry commenters stated that available data does not demonstrate a correlation between unwashed gum levels and CCD. They presented data which they stated indicates that no general correlation between unwashed

[7] Docket items VI–D–43 and VI–D–45.

gum levels and CCD exists. They also stated that unwashed gum levels are not necessarily a predictor of detergent additive concentrations.

EPA has concluded that no correlation of unwashed gum levels or additive concentrations with gasoline CCD-forming tendency has been established. EPA agrees with comments from fuel and additive producers that unwashed gum levels cannot be used as a reliable predictor of detergent concentration. EPA believes that available data indicates that detergent additives vary in their tendency to contribute to CCD, and that this tendency does not necessarily correlate with unwashed gum levels. Based on a review of all of the available data, EPA believes that implementing an unwashed gum limit on additized gasoline would not necessarily produce beneficial results and might actually produce a barrier to the development of CCD control additives.

E. Other Potential Adverse Side Effects of Detergent Overuse

Automobile industry commenters raised concerns about the effects detergent additive overuse might have on materials and components of automobiles. The comments stated that intake valve sticking and deterioration of the fuel system, oxygen sensor and catalyst could result from the use of overadditized fuel. API commented that negative impacts on vehicles of accidental overtreatment have been very rare.

EPA finds no compelling reason from an emissions control standpoint to implement specific regulatory measures to prevent occurrences of detergent overuse. To the extent that driveability problems may exist due to the failure of fuel marketers to institute adequate quality control measures, the industries involved are in a position to adequately resolve these problems without the imposition of a regulatory control. As noted above and discussed in the Summary and Analysis of Comments, EPA has sufficient reason to believe that its IVD and PFID control requirements will not increase the likelihood that detergent overuse, and any attendant side effects, will take place.

III. Basic Information Requirements

Pursuant to the fuel and fuel additive registration regulations in 40 CFR part 79, both additive manufacturers and fuel manufacturers are required to report specific identification, composition, and other basic product information to EPA. In the NPRM for the detergents program, EPA proposed additional information that would be required for detergent additive registration in order for a detergent product to be eligible for use by blenders in complying with the gasoline detergency requirements of the rule. EPA also proposed specific registration requirements for fuel manufacturers related to their detergent blending responsibilities under the program. This section briefly describes the originally proposed information requirements as well as those included in the interim detergent rule, and summarizes the changes to these requirements reflected in today's final rule.

A. Detergent Additive Information Requirements

Under the fuel additive registration requirements of § 79.21, an additive manufacturer must submit certain compositional and analytical information on each of the additive products it wishes to market. Among other requirements, these include the chemical identification and concentration of the components of the additive product; the chemical structure of each component; an analytical technique for detecting and/or measuring the additive as mixed in fuel; the identity of the fuels in which the use of the additive is recommended and the purpose-in-use and manufacturer's recommended range of concentration of the additive in each such fuel.

Consistent with these standard registration requirements, EPA proposed that, for a detergent additive to be eligible for fulfilling gasoline detergency requirements, detergent certifiers would be required to submit the following information on detergent additive composition: (1) A specific chemical description of each component of the detergent package, (2) the exact weight/volume percent of each component of the detergent package, (3) a fourier transform infrared spectroscopy (FTIR) test method to obtain a qualitative and quantitative spectrum of the detergent additive package both in its pure state and in finished gasoline, and (4) an actual infrared spectrum of the detergent additive package and each component of the detergent package. The detergent NPRM also proposed that, upon EPA's request, a sample of the detergent additive must be provided to the Agency for evaluation.

The information reporting requirements finalized in the interim detergent rule (at § 80.141(c)) maintains the proposed requirement that the exact amount of each component of the detergent additive package must be reported, and specifically prohibits the reporting of any detergent-active component as the product of other chemical reactants. In addition, the interim rule requires that, for each detergent-active component, the registration must indicate which of the following chemical categories applies: (1) Polyalkyl amine, (2) polyether amine, (3) polyalkylsuccinimide, (4) polyalkylaminophenol, (5) detergent-active carrier oil, (6) other detergent-active component. The interim regulations state that a single detergent additive registration may contain no variation in the identity or concentration of any detergent-active component.[8] The regulations require the availability of an analytic procedure, preferably based on FTIR, that is capable of both qualitative and quantitative identification of each component of the detergent additive package. The regulations do not require that the procedure be capable of identifying the additive when mixed in fuel.

Following publication of the interim rule, CMA proposed several alternatives to those requirements. CMA stated that the compositional reporting requirements in the interim rule failed to recognize the essential chemical nature of deposit control additives and the processes by which they are manufactured. CMA asserted that compliance with the requirements would be impossible, given the non-homogeneous nature of detergent polymers and carrier oils, and the inherent variability in detergent manufacturing, blending, and analytic sampling processes. CMA was also concerned about the compositional test results required to establish a defense to presumptive liability under § 80.156(c)(4)(ii) of the interim regulations.

CMA suggested that, rather than exact concentrations, only target concentrations of the various detergent-active components should be required to be reported for registration. CMA also stated that registrants should not be precluded from reporting detergent-active components as the product of other chemical reactants, provided that the registrant also provide a description of product parameters that are sufficient to effectively define the registered product.

As described fully in the Summary and Analysis of Comments and in a memorandum to the docket,[9] EPA has

[8] Subsequently, in Question and Answer Document #3 (Docket item IV–C–10), EPA clarified that only downward variation in the concentration of any detergent-active component was prohibited.

[9] ''Interactions Between the Environmental Protection Agency (EPA) and the Chemical Manufacturers Association (CMA)'', Jeff Herzog, OMS, Judy Lubow, OECA, Docket item IV–E–41.

considered the various issues raised by CMA, and has also reviewed its own experience with the interim program. Under the interim program, some manufacturers appear to have been able to comply with the requirement to specifically identify and quantify each component of the detergent package, while others have maintained that they are unable to comply. While this experience does not enable EPA to make a definitive judgment as to the general appropriateness of the interim reporting requirements, it does demonstrate an ongoing problem in at least some cases. Thus, EPA is adopting several provisions in today's rule that will provide alternative reporting requirements. EPA believes these alternative will accommodate industry's reasonable concerns about practical and technical limitations on the ability to define detergent additive composition, while also providing EPA with assurance that detergent composition variability will not adversely affect in-use deposit control effectiveness. The requirements finalized in today's rule are summarized below.

1. Compositional Data. The interim rule's requirement that all components of the detergent additive package be identified chemically and by concentration (weight or volume percent of the product, as applicable) will remain in effect. Within a single detergent additive registration, the identity of detergent-active components is still not permitted to vary. However, today's final rule accommodates manufacturing variability to a greater degree than previously allowed under the interim rule. Specifically, a range of concentrations is permitted to be reported for detergent-active components, provided that at the lower end of the range, the deposit control effectiveness of the additive package is not less than that demonstrated during certification testing.[10]

Recognizing the heterogeneous nature of the carrier oils and detergent-active polymers which frequently occur in detergent additive formulations, these final regulations provide two methods by which the chemical composition of detergent-active components may be reported. When it is reasonable to do so, detergent-active components are to be identified (as originally proposed) using standard chemical nomenclature or a description of the chemical structure, or both. However, when the manufacturer believes this requirement to be infeasible or impractical, detergent-active components (both detergent-active polymers and detergent-active (chiefly synthetic) carrier oils) may be reported as the product of specified reactants. In such cases, the reactant materials must be identified, together with the acceptance criteria normally used by the manufacturer for determining that these materials are suitable for use in synthesizing the detergent components. Upon EPA's request, documentation must be provided by the manufacturer that the reported acceptance criteria are in fact those normally required of its suppliers. In addition, the detergent-active components must be described by means of gel permeation chromatography (GPC), providing a quantitative distribution of the polymeric components by molecular size. The GPC requirements include a description of the test procedure, including the use of appropriate calibration standards, and the resulting chromatograms. EPA believes that, when combined with other reporting and sample requirements (described below), this alternative approach will provide adequate identifying information for detergent-active components.

For non-detergent-active carrier oils (usually petroleum-based), the additive manufacturer must provide the percentage by weight of oxygen, nitrogen and sulfur, when present in the carrier oil at greater than 0.5 percent by weight. In addition, the manufacturer must provide the T10, T50, T90, end boiling point, API gravity, and viscosity of the carrier oil mixture.

These registration requirements will provide some useful information for determining whether an in-use detergent additive conforms to the composition of the detergent additive package which was shown to be effective during certification testing. However, in light of the limited ability of detergent manufacturers to precisely define the chemical properties of their additive, EPA believes that additional means are needed by which conformity with the composition reported in the certification process can be confirmed. Therefore, today's rule requires a sample of the detergent product to be submitted to EPA at the time the certification letter is sent to the Agency, as well as an FTIR-based test procedure together with the actual infrared spectra produced by the procedure.

Under the interim rule and proposed certification rule, these items were to be submitted on a per-request basis only. Thus, to accomplish the Agency's objectives, EPA could have chosen to request the detergent sample and FTIR from each additive manufacturer individually at the time of detergent certification. However, this would be a time-consuming and inefficient procedure. In fact, EPA's past experience indicates that manufacturers may be reluctant to cooperate with such requests. Therefore, EPA has instead chosen to require the submission of these items with every certification letter. It should be noted, however, that submission of detergent samples to EPA at the time of certification does not mean that the Agency will confirm the validity of the compositional information submitted by the additive manufacturer. EPA reserves the right to request and analyze other samples. Some detergent samples (or portions of samples) may indeed be used to verify the registration information provided by the additive manufacturers; others may be kept as baseline samples for monitoring the conformity of future production batches. Detergent samples may also be used by EPA chemists in efforts to develop improved analytical methods for detergents and their components.

EPA is sensitive to manufacturer's concerns about the handling of the samples they submit. To ensure the proper treatment of samples claimed as confidential by the manufacturer, the regulations require the detergent samples to be sent to EPA's chemistry laboratory in Ann Arbor, which handles and stores such proprietary materials as part of its day-to-day operations.[11] Information claimed as confidential will be protected as required under EPA's regulations concerning confidential business information, at 40 CFR part 2. EPA also will take all reasonable steps to maximize the shelf life of detergent samples. To that end, today's rule requires that manufacturers inform EPA about any known sample shelf life limitations, if any, and to indicate what conditions (e.g.,temperature or light exposure) most affect shelf life. Such information should be readily available to additive manufacturers for their own quality control purposes.

The Agency anticipates that detergent shelf life (i.e. the length of time during which all of the pertinent properties that define a detergent's functionality remain unchanged) will nearly always exceed a year or more. In addition, certain basic properties (e.g., API gravity, and viscosity), tend to be less sensitive to the passage of time. Thus, a detergent sample may be useful for

[10] Detergent certification testing must be conducted with each detergent-active component present in the test fuel at a concentration that does not exceed the concentration reported as the lower bound in the range of concentrations.

[11] See Docket item IV–B–09 for a discussion of the procedures that will be observed in handling proprietary detergent additive samples.

certain limited testing purposes even after the normal shelf life has expired. After an additive sample is no longer suitable for any analytical testing purposes, it will be destroyed by the Agency.

Today's rule contains one additional compositional reporting requirement which detergent manufacturers must fulfill if they wish to be able to take advantage of relatively simple mechanisms which the rule provides for demonstrating an affirmative defense to presumptive liability (see Section VIII.B.2.a of this preamble). This provision requires the manufacturer to submit to EPA certain physical product parameters which will be monitored on each detergent production batch for quality control purposes. Generally, the parameters to be monitored for affirmative defense purposes include viscosity, density, and basic nitrogen content, although other parameters may be added or substituted upon the manufacturer's request and EPA's approval. For each such parameter, the target value and range of variability and a description of a standardized measurement test procedure are to be provided at the time of certification. The designated test methods must be consistent with the chemical and physical nature of the detergent product, and the documented ASTM repeatability [12] for the method must be specified. EPA will consider the parameter measurement to be an acceptable basis for establishing an affirmative defense to presumptive liability if the range of variability differs from the target value by no more than five times the ASTM repeatability value, or by no more than 10 percent of the target value, whichever is less. Due to the practical limitations associated with the measurement of small quantities of certain product parameters, this variability limit does not apply in the case of nitrogen analysis (or other procedures for measuring concentrations of specific chemical compounds or elements) when the target value is less than 10 parts per million. In such cases, the acceptable variability is instead limited to 50 percent of the target value.

EPA believes that establishing such limitations on the acceptable range of product parameter variability is necessary to a credible claim that a given batch of detergent is equivalent to the certified detergent product. This is especially important in view of the fact that deposit control performance testing is required only on a single detergent sample of a given composition. While acknowledging that some production variability is expected, EPA must still ensure that the functionality of the detergent actually produced is reasonably equivalent to that demonstrated during certification. EPA believes that, along with other affirmative defense elements, the required limits on manufacturing variability will provide adequate assurance on a routine basis that the composition and attendant deposit control efficacy of detergent production batches do not vary to such an extent that the minimum recommended treatment rate reported by the additive manufacturer is no longer representative of the detergent's actual performance. Outside of these limits, EPA is not sufficiently confident that the composition of detergent production batches would provide adequate deposit control. The affirmative defense provisions in today's rule provide additive manufacturers with practical and economical methods to demonstrate that the deposit control efficacy of detergent batches is maintained, while allowing a reasonable degree of production variability. The regulations also allow manufacturers who cannot meet these variability limits to request (and justify) other arrangements.

2. Minimum Effective Concentration. As specified in § 79.21(d), a fuel additive registration must report the minimum blending concentration which the manufacturer recommends for the additive in each type of fuel for which the additive's use is designated. In the case of detergent additives registered for use in gasoline, the minimum recommended concentration is required to be no less than the lowest amount which the additive manufacturer has determined to be effective for deposit control. Thus, the minimum recommended concentration is also the lowest additive concentration (LAC) which the detergent blender may use in gasoline to be in compliance with the detergency requirements of this program (subject to any use restrictions that may be applicable under a given certification option).

The interim detergent regulations require that the reported minimum effective concentration be supported by appropriate test data, which is to be supplied to EPA upon request. While rigorous test procedures and performance standards are not specified, the interim rule does contain general guidelines regarding the type(s) of tests and test fuels which EPA will regard as sufficient, during the interim period, for demonstrating an additive's deposit control effectiveness at the specified minimum concentration. These flexible testing requirements were appropriate, given the purpose and practical limitations of the interim program.

As described in subsequent sections, however, the detergent certification program requires that the minimum recommended concentration be determined on the basis of specific deposit control performance standards, as shown in the context of specific performance tests and test fuels. Moreover, this final rule offers a number of certification options (described in Section IV), such that a different minimum concentration may be determined for different gasoline pools (e.g., national, PADD, fuel-specific) or gasoline types (e.g., premium, oxygenated, nonoxygenated). Thus, in reporting the minimum recommended concentration(s) for gasoline detergent additives, the additive manufacturer must also specify the applicable certification option(s) for each minimum concentration. In addition, if the detergent is also registered separately for use in leaded gasoline, the applicable minimum concentration for deposit control in leaded gasoline must be specified. This amount may be the same as that needed for PFID control under any certification option (except fuel specific) or, optionally, the amount demonstrated to be needed for carburetor deposit control.

The information on minimum concentration, as reported in the detergent registration, must also be accurately communicated by the additive manufacturer to its customers, i.e., detergent blenders and secondary additive manufacturers. For protection of all parties involved in the transaction, this communication must be made in writing. For example, if a gasoline misadditization were to occur, such that detergent were added at a concentration less than the required minimum amount, the detergent manufacturer could potentially be held liable for the misadditization unless he could demonstrate that proper blending instructions were provided prior to the additization. These liability issues are discussed further in Section VIII of this preamble.

[12] Repeatability of a test method is defined by ASTM as the quantitative expression of the random error associated with a single operator in a given laboratory obtaining replicate results with the same apparatus under constant operating conditions on identical test material within a short period of time. It is further defined as that difference between two such single results as would be exceeded in the long run in only one case out of twenty in the normal and correct operation of the test method. (ASTM D 3244, Standard Practice for Utilization of Test Data to Determine Conformance with Specifications.)

3. Certification Letter. In addition to satisfying the above requirements concerning detergent additive composition and recommended concentration, the additive manufacturer (or other party wishing to certify the detergent [13]) must submit a certification letter to EPA. The certification letter must include a statement attesting that the additive has undergone the performance testing required by the regulations, using the specified test fuels, and has met the deposit control performance standards required for certification. The statement must also affirm that the performance tests were conducted in a manner consistent with sound engineering practices, and that complete documentation of the test fuel formulation, performance test procedures, and test results is available for EPA's inspection. In addition, the letter must provide summary information on the test fuel composition and source(s), the additive concentration(s) used in certification testing, the results of the testing, and the lowest additive concentration (minimum recommended concentration) which the certifier seeks to establish for each certification option under which the detergent is to be certified. This is a self-certification process, with the party providing EPA with information that indicates compliance with the various requirements. EPA will not issue a certificate, for example as done in the Federal motor vehicle emissions control program.

The Agency will acknowledge receipt of the certification letter. The certification date will be the earlier of either the certifier's receipt of EPA's acknowledgement, or 60 days after EPA's receipt of the certification letter, as documented by a certified mail receipt. EPA does not intend routinely to examine the full test documentation, and will in many cases rely on the certifier's attestations. Neither EPA's acknowledgement of receipt of the letter or the passage of time indicates that the certification letter has been reviewed by the Agency or that a determination has been made regarding whether the requirements of certification have been satisfied. This is consistent with the self certification approach adopted in this rule. On a case-by-case basis, EPA may require that an additive certifier provide the actual test data to EPA to substantiate the claim of deposit control effectiveness made in the certification letter. EPA believes that the declaration by the certifier that a detergent certification meets the program testing requirements, coupled with the occasional Agency review of certification test data, should provide reasonable assurance that the program requirements will in fact be met in the vast majority of cases.

EPA might request submission of supporting data for a variety of reasons. For example, the detergent treat rate recommended by an additive manufacturer under one certification option may seem anomalous relative to the treat rates recommended for the same additive under other certification options. Alternatively, the treat rates recommended by one additive manufacturer may not be consistent with the treat rates recommended by manufacturers of apparently similar additives. EPA may also learn from fuel or automobile manufacturers that a particular detergent product appears to be less effective than others. For these or other reasons, including random oversight of compliance, EPA may request that the additive certifier provide some or all of the test procedure and fuel data required under the regulations. In such a case, the detergent registrant must provide the supporting data to EPA within 30 days of receipt of the request for such data. If EPA judges the supporting data to be inadequate (or if it is not received), EPA may disqualify the subject detergent for use in compliance with the requirements of this rule (see § 80.161(e)). The detergent additive manufacturer will be required to provide EPA with a list of its customers who use the disqualified detergent. EPA shall inform all such fuel manufacturers and secondary additive manufacturers that the detergent is no longer eligible for use in complying with Federal gasoline detergency requirements. In addition, EPA may initiate the enforcement actions described in Section VIII.

Under the interim program, a disqualification order becomes legally effective for the additive manufacturer five days after its publication in the Federal Register. Today's rule provides that under the certification program a disqualification order will become effective for the certifier on the date the order is received by the certifier. The disqualification order will be published in the Federal Register as under the interim program. However, EPA believes there is no reason to delay the effective date of a disqualification for the certifier past the date when the notification is received from EPA. At this point in the disqualification process, the certifier will have been afforded ample notice of a disqualification and an opportunity to participate in the Agency's evaluation of whether the disqualification was appropriate. Thus, the certifier will have had sufficient opportunity to prepare to comply with the disqualification order upon its arrival. If the certifier is also a blender of the disqualified additive, the certifier must also stop using the ineligible detergent upon receipt of the disqualification order. As under the interim program, other blenders affected by the disqualification order will be afforded 45 days from their receipt of a notification from EPA that the detergent is no longer eligible for use to comply with gasoline detergency requirements, or 45 days from the publication of such notification in the Federal Register, which ever is sooner, to discontinue use of the disqualified detergent and substitute an eligible detergent additive.

B. Information Requirements for Fuel Manufacturers

The NPRM and the interim detergent program recognized that detergent blenders, as fuel manufacturers (under the existing definition of a fuel manufacturer in § 79.2(d)), are subject to standard fuel registration requirements under 40 CFR part 79. These standard requirements include the identification of any additive products intended to be used in the registered fuel and the range of concentration of each such additive in the fuel. The only additional feature proposed to meet the information requirements for fuel registration under the detergent program was that the lower boundary of the range of concentration of detergent additives could be no less than the minimum recommended concentration specified in the detergent additive's registration, unless otherwise approved by EPA under special circumstances.

For reasons not directly related to the detergents program, EPA is currently considering possible changes to the definition of ''fuel manufacturer'' in § 79.2(d). If this change is adopted, EPA realizes that many detergent blenders would no longer be required to submit the registration information envisioned in the NPRM. However, EPA experience under the interim program indicates that EPA's monitoring and enforcement activities regarding the proper use of certified detergents rely much more on the detergent blenders' additization accounting records (see Section VIII) than on the up-front registration information which they would be required to submit. Thus, while this final rule requires detergent blenders to maintain specific records concerning

[13] For example, in the case of a fuel-specific certification, the certifying party could be the fuel manufacturer or another party with title and access to the segregated fuel supply, rather than the detergent manufacturer. See Section IV.D.

their additization activities, it does not include any special registration requirements for detergent blenders, nor for fuel manufacturers in general.

IV. Certification Options

A. Background

The gasoline produced by the U.S. refining industry is not homogeneous with respect to the tendency to form deposits. Gasoline pools with different characteristics occur as a result of different crude oil sources, refining capabilities and fuel distribution networks, the octane rating of gasoline provided for different engine designs, and regulatory programs which control certain parameters in gasoline sold in polluted urban areas. A study of the relative deposit-forming severity of these gasoline pools showed that different pools of gasoline may vary in their deposit forming potential, as reflected by different distributions in the levels of specified ''severity factors'' (see Section VI). To provide industry the opportunity to optimize the detergent additization of these various pools while still ensuring the environmental benefits of the program, EPA proposed detergent certification options based on the deposit related characteristics of the various gasoline pools.

The proposed certification options included a nationwide program, geographical options based on the Petroleum Administration Districts for Defense (PADDs), oxygenate options because of the variety of oxygenates which may be blended into gasoline to meet regulatory requirements or octane specifications, an option for premium gasoline, and a fuel-specific option for segregated gasoline pools. These options are all being finalized in today's rule. EPA also proposed an option to certify detergent additives for use in reformulated gasoline. However, as discussed in more detail below, the deposit-forming severity of that pool of gasoline has not yet been sufficiently characterized. Another proposed option would have allowed detergent additives certified for California gasoline to be used in all PADD V gasoline, but for the reasons discussed below in Section V, EPA is not finalizing this option. Nevertheless, California certifications will be accepted for demonstrating compliance with the certification requirements of the Federal program in California (see Section V). A proposed second tier of detergent certification, to ensure sufficient additization of the most severe gasolines, is also not finalized today. All these options and the comments by the public on these options are discussed further below.

It is important to understand that the choice of a particular certification option actually represents a choice as to the test fuel in which a particular detergent will be mixed when it undergoes certification testing. (Test fuel composition [severity] is an important element in determining the challenge to a detergent's ability to control deposits represented by certification testing.) As a result of such testing, a required minimum treat rate (minimum recommended concentration or lowest additive concentration) will be established for the additive when used in the type of gasoline represented by the test fuel. In other words, the certification of a detergent under a particular certification option has the result of setting a treat rate for that detergent in the pool of gasoline covered by the certification option. To say a detergent has been certified under several options merely means that the detergent has undergone performance testing in the context of several different test fuels, each representing a different option, and that different treat rate requirements have thus been established for the additive when used in the different gasoline pools covered by these options. The relationship between certification options and test fuels is discussed further in Section VI of this preamble.

These options, when considered together, provide a great deal of flexibility to the fuel industry for additizing gasoline. Of course, in each situation, the industry must find the optimal balance between the costs of additional certification testing and the potential opportunity to use reduced additive amounts in particular gasoline pools. Based on the number of oxygenates listed in the discussion on the oxygenates suboption below, there are over 90 different combinations of certification options and suboptions. Table #IV–1 summarizes the categories of options and suboptions.

TABLE #IV–1.—OPTIONS AND SUBOPTIONS FOR CERTIFICATION OF DETERGENT ADDITIVES

Options	Suboptions
Nationwide Option	Generic Certification;* Oxygenated; Nonoxygenated; Oxygenate-Specific; Premium: Oxygenated; Nonoxygenated: Oxygenate-Specific.
PADD Option for PADDs I, II, III, IV, and V Outside California.	Generic Certification; Oxygenated; Nonoxygenated; Oxygenate-Specific; Premium: Oxygenated; Nonoxygenated: Oxygenate-Specific.
Fuel-specific Option	Parallels National and PADD Specific Certification.
California Equivalency	Per CARB Certification.

*Prescribed test fuel must contain 10% ethanol.

B. Single-Tier Certification System

In the NPRM, EPA proposed two detergent certification tiers. The first tier would target the deposit control requirements of ''typical'' gasoline, containing relatively moderate levels of specified fuel severity factors (sulfur, olefins, aromatics, and T–90). The second tier was proposed as a means for controlling deposit formation from the most severe gasolines. A gasoline would be identified as ''most severe'' when at least one of the identified severity factors in the gasoline was at or above the 95th percentile of the distribution of measured values for that parameter in gasoline survey data. EPA proposed the second tier certification because of the concern that these most severe gasolines might exceed the ability of the detergent additive, at the concentration required by the first tier, to control engine deposits at the required level. EPA was particularly concerned about the possibility that some motorists might consistently choose to use the same brand of gasoline, which might happen to be the most severe brand of gasoline available in an area. Used perennially, these most severe gasolines could exceed an additive's ability to control deposits and lead to much higher motor vehicle emissions and driveability problems for those motorists.

As proposed, the additive manufacturers would certify their additives to the second or more severe tier through the use of test fuels containing higher concentrations of the gasoline severity parameters. The expected results would be higher additive treat rate requirements for the high-severity gasolines. Detergent blenders would be responsible for testing their gasoline on a weekly or batch-by-batch basis to characterize the severity of their gasoline using specified

test methods. Then, if the gasoline exceeded the 95th percentile of the gasoline severity distribution created from survey data, the fuel blender would have to additize its gasoline at the concentration prescribed for the high-severity gasoline pool.

Comments submitted by both the oil and automobile industries were opposed to the two-tier scheme for additizing gasoline. These comments and other available information suggest that only rarely will particular service stations or localities continually be supplied with only the most severe additized gasoline. More often, the impact of severe gasolines will be moderated by the consumer's subsequent use of less severe gasoline. Furthermore, a review of PADD-specific gasoline survey data suggests that gasoline which may be labeled severe because of high levels of one or two severity factors may have relatively low levels of the other severity factors. Thus, the incremental testing, monitoring, and recordkeeping requirements that would be needed on a regular basis to address the relatively rare instances in which the impact of very severe gasoline might be significant and long-lasting do not seem warranted. EPA concludes that the potential benefits of a second tier of detergent additive certifications for severe gasolines are uncertain, and do not justify the incremental costs and burdens. This final rule, therefore, is based on a single-tier certification approach. A complete description of the public comments on this issue and EPA's associated analysis are contained in Section IV of the Summary and Analysis of Comments document.

C. Geographical Certification Options

1. National Certification. To obtain a national certification, the certifier must demonstrate a detergent additive's compliance with the performance standards through testing with specified test fuel(s) based on characteristics of the national gasoline supply (see Section VI). The LAC established under a generic national certification option will be valid for use of the detergent in any type of gasoline, oxygenated or nonoxygenated, unleaded or leaded, of any octane grade, that is sold in the United States, including imported gasoline. However, California fuel marketers should be aware that CARB requires detergents used in California gasoline to comply with CARB detergent certification requirements, and that a detergent certified under the Federal program may or may not also satisfy CARB's certification requirements. Therefore, parties additizing gasoline for sale in California must ensure that they are in compliance with both the Federal and CARB detergent programs (See Section V for the applicability of a CARB certification in meeting Federal detergent requirements).

The test fuel for the generic national certification option must contain four specified severity parameters at no less than the 65th percentile of the national survey data, and must be blended with ethanol to 10 percent of the final blended volume. As described in more detail in Section VI, ethanol was chosen for the generic test fuel because the available data shows that it tends to have a greater impact on deposit-forming tendency than the other oxygenates. Using different test fuels, national certification can also be obtained for a variety of subpools of the national gasoline supply (e.g., oxygenated versus nonoxygenated, premium, and combinations of these pools). These suboptions are further discussed below.

EPA proposed the national certification option and suboptions to provide a broadly applicable method to certify a detergent. EPA anticipates that many major gasoline marketers will use the national certification option because of the simplicity of blending one concentration of detergent additive in all the fuel manufacturers' gasoline across the nation. In their comments on the proposed rule, the refining industry supported the national option and stated that most of its member companies would probably use this option.

2. PADD Certification. As described above, the prescribed additive treatment levels under the national certification option are based on a spectrum of nationwide gasolines. As a result, for some pools of relatively low-severity gasoline distinguished by their geographical location, the national option may cause more additive to be used than necessary to maintain the required level of deposit control performance. Thus, additive costs might tend to be higher than necessary for those pools of gasoline. EPA's analysis of the distribution of gasoline severity factors showed that the composition of gasoline sold tends to differ between the various PADDs of the United States. This difference probably results from the varying sources of crude oil and the differences in crude processing capabilities among the refineries in each PADD, and the relatively consistent pattern of gasoline production and distribution within the PADDs.

Given these fuel compositional differences between the PADDs, EPA proposed, and is now finalizing, detergent additive certification options applicable to the gasoline sold within each PADD. A PADD certification can be obtained by demonstrating compliance with the performance standards through testing on a specified test fuel(s) based on the characteristics of the gasoline sold in the given PADD. As summarized in Table #IV–1 above, the PADD certification option parallels the national certification option in that there are opportunities for a generic PADD certification or certification under specified suboptions.

A PADD certification pertains to the additive treat rate requirements for the gasoline sold to retail outlets, wholesale purchaser consumers (WPC), or to the ultimate consumer within a PADD, no matter where the gasoline may have been refined or additized. This reflects the fact that the PADD certification test fuels are defined according to survey data of gasoline sold at retail outlets within the PADD, not gasoline produced or additized within the PADD. For a detergent blender who commonly distributes detergent-additized gasoline across PADD lines, and who wishes to have full flexibility as to the destination of each batch of additized gasoline, a detergent with a national certification would probably be more appropriate than a detergent subject to the use restrictions of a PADD certification. Use of a PADD-certified detergent will be most practical when the downstream distribution networks from a given blending facility terminate within a single PADD, or when a detergent blender is willing and able to implement control systems to ensure that gasoline blended with a PADD-certified detergent will end up at a retail outlet within the appropriate PADD.

A PADD V certification is applicable only to the PADD V states other than California. Accordingly, the required test fuel is based on gasoline survey data collected from PADD V excluding California. This is appropriate because California Phase II reformulated gasoline is expected to be much less severe than gasoline available elsewhere in PADD V (see Section V).

PADD certifications are likely to be sought only when the respective certification test fuel specifications will result in a lower minimum detergent treatment rate requirement than under a national certification, i.e. for PADDs with less severe gasoline. In the more severe PADDs, i.e., those in which the gasoline supply tends to have higher levels of deposit-forming characteristics than the national supply, the PADD certification test fuel specifications would result in higher treatment requirements. Thus the national certification option would likely be

chosen. This raises a potential concern that gasoline in relatively severe PADDs might receive inadequate amounts of additive.

For this reason, the generic national test fuels have been designed to represent greater than average deposit-forming conditions. For example, as explained in detail in Section VI, this final rule specifies that each test fuel must contain the fuel severity factors at no less than the 65th percentile in the respective fuel survey distribution. Only a very small proportion of the gasoline sold in the United States contains the combination of all four of the fuel severity parameters at levels this high or higher. Other approaches for assuring adequate deposit control in the more severe PADDs were also considered by EPA in the NPRM. As already discussed above, one option would be to apply a second level of additization based on severity for national or PADD certification, which would be triggered by a high level of one or more severity parameters. For the reasons discussed, this approach was not followed in this final rule. Under another alternative, the national certification would be abandoned and only PADD-based certifications would be allowed. This alternative was not pursued because EPA judged it would multiply the costs of certification and recordkeeping without sufficient additional benefit. In a third alternative, national certification would still be allowed, but the specifications on national test fuel severity would be increased to provide additional assurance of adequate stringency for all PADDs. Due to the wide support expressed for the proposed option in the comments, the lack of support for these other alternatives, and a desire to limit certification testing and additization costs to levels that are offset by concomitant benefits, EPA has decided to finalize the proposed methods of national and PADD certification, and to omit the alternatives considered.

EPA believes that the PADD option in conjunction with the national certification option will give the regulated industry a high degree of flexibility toward optimizing the amount of detergent additive used in fungible gasoline while ensuring adequate additization under either option. The choice for each certifier of what combination of PADD and national certifications to undertake will be made according to the characteristics of the certifier's particular refinery, distribution, or marketing network, weighing the additional cost of certification in multiple areas against the potential savings (or competitive advantage) of achieving a lower certified LAC.

3. U.S. Territories. This final rule requires gasoline sold in U.S. territories to be additized at the concentration required under the national certification option. In the NPRM, EPA acknowledged that its information on gasoline severity and distribution networks was insufficient to propose that a territory may be additized consistent with the requirements of a particular PADD. Comment was requested on whether it would be appropriate to include U.S. territories under a PADD certification option and how territories could be appropriately assigned to the various PADDs. EPA also requested comment on whether special circumstances affecting gasoline supply, distribution, or marketing might make compliance with these rules unreasonably burdensome in some or all of the territories and whether special provisions should apply or if these territories should be exempted.

EPA did not receive any response to the request for comments and has not obtained additional information which would help determine if the gasoline sold in any of the territories is consistent with any specific PADD. Thus, the final rule requires gasoline sold in U.S. territories to be additized with a nationally certified detergent at the appropriate level.[14] This will ensure a high level of deposit control protection in these territories. In the NPRM, EPA identified the following U.S. territories: Virgin Islands, Guam, the Commonwealth of the Northern Marianas Islands, and Puerto Rico. American Samoa was inadvertently omitted from this list, and is now properly noted as a U.S. territory and therefore subject to Federal gasoline detergency requirements.

4. Certification Sub-Options.

a. Nonoxygenated Gasoline Certification Option. The data presented in the NPRM on the fuel parameters that impact deposit-forming severity indicate that the addition of oxygenates such as ethanol and MTBE tends to increase the amount of additive required to maintain the desired level of deposit control protection. Thus, the generic certification approach, based on test fuels containing oxygenate at the maximum percentage, may lead to overadditization of nonoxygenated gasoline. Thus, EPA is permitting the separate certification of detergents for nonoxygenated gasolines, using appropriate nonoxygenated test fuels. This suboption can be used in conjunction with the national and PADD options, the fuel-specific option, and the premium fuel suboption.

b. Oxygenate-Specific Certification Option. A generic national or PADD certification option based on ethanol-blended test fuels may require higher additive blend concentrations and higher costs than necessary for gasolines blended with oxygenates other than ethanol. Thus, EPA is allowing specific certification of additives based on testing with fuels containing other oxygenates. Examples of such other oxygenates include ethyl tertiary butyl ether (ETBE), tertiary amyl methyl ether (TAME), tertiary amyl ethyl ether (TAEE), tertiary hexyl methyl ether (THME), diisopropyl ether (DIPE), and tert-butyl alcohol (TBA). Like ethanol, the concentration of these oxygenates in the test fuels shall be at the maximum concentration allowable in commercial gasoline. However, while a detergent certified with a test fuel containing ethanol can be used in gasoline containing any other oxygenate or no oxygenate, oxygenate-specific certification will be a use-restricted certification option. For example, the minimum additive concentration determined through performance testing with MTBE-blended test gasoline will be applicable only to gasoline blended with MTBE, or without any oxygenates.

EPA requested comment on the potential benefits, problems, and costs of either providing for or requiring a separate certification for oxygenated and nonoxygenated fuels, and on the appropriate specificity regarding the oxygenate to be used in certification testing. In particular, EPA requested comment on the potential difficulties and costs associated with differentiating oxygenated and nonoxygenated gasolines for enforcement purposes. The oil industry supported the options to certify additives for use in gasoline containing specific oxygenates, or for use in gasoline without oxygenates. The ethanol industry disputed the notion that ethanol is more deposit-forming than the other oxygenates. In addition, they expressed concern that many

[14] However, this provision of the final rule does not affect the potential availability of a special exemption for certain territories under CAA section 325. Section 325 provides that, upon petition by the respective governor, the Administrator is authorized to exempt any person or class of persons in certain territories (Virgin Islands, Guam, Commonwealth of the Northern Marianas Islands, and American Samoa) from certain requirements under the CAA, including the gasoline detergency requirements. Such an exemption may be granted if the Administrator finds that compliance with a regulatory requirement is not feasible or is unreasonable due to unique geographical, meteorological, or economic factors within a given territory, or such other local factors as the Administrator deems significant. Puerto Rico is not included among the territories permitted to petition the Agency for an exemption under the provisions of Section 325.

deposit control additives are not soluble in ethanol, thus restricting ethanol blender choices for additizing ethanol blends. They further contended that fuel manufacturers and blenders may not be willing to continue using ethanol if they are placed at economic risk in case of disruption in the supply of the appropriate detergent additives available to them. EPA evaluated the available data on the solubility of detergent additives in ethanol-gasoline blends and determined that, even though some detergent additives may not be soluble in pure ethanol, most (if not all) are soluble in the 10 percent and lower ethanol blends currently being produced.

The ethanol industry also commented that fuel blenders who blend ethanol into gasoline would be precluded from doing so if the gasoline is already blended upstream with a detergent additive that is either not certified for, or not used in sufficient amount to account for, the addition of ethanol. This final rule requires incremental additization when ethanol is added to previously additized gasoline, as proposed, but to address the ethanol industry's concern, the rule permits a different detergent to be used than the one already present in the gasoline. The amount of incremental detergent must be sufficient to account for the increase in base fuel severity caused by the presence of ethanol, as well as the detergency requirements of the added ethanol volume itself. To allow the proper amount to be determined, the newly added detergent must be one which has been certified both for nonoxygenated gasoline and for ethanol-blended (generic use) gasoline. The proper incremental amount can then be computed based on the different rates required under the two certifications. Additional discussion of this issue and similar ''cures'' for other use restrictions can be found in Section VIII of this preamble.

c. Premium Grade Certification Option. An analysis of AAMA fuel survey data in the NPRM showed that premium gasolines, defined as having an octane rating of $91 (R+M)/2, tend to have lower olefin content, sulfur content, and T–90 than regular and intermediate grade gasolines. Of the four pertinent nonoxygenated fuel parameters, only aromatic content is higher in the premium grade. This suggests that premium fuels may require a lower concentration of detergent additive to maintain the same level of deposit control performance.

Based on these compositional differences, EPA expects that a separate detergent certification suboption for use in premium gasoline within the national and PADD certification options would allow the industry to reduce costs by reducing the amount of additive required. The oil industry supported the premium suboption in their comments on the NPRM. Thus, the final rule will allow certification of additives for use in premium gasoline.

d. Reformulated Gasoline Certification Option. The Federal RFG regulations (59 FR 7716, February 16, 1994, 40 CFR 80.40) require changes to gasoline in certain areas where the national ambient air quality standard for ozone is not being met, and these changes may potentially affect the deposit forming tendency of these gasolines. The first phase of the RFG requirements, which took effect January 1, 1995, is expected to cause a small reduction in some or all of the four deposit-forming severity factors, although the oxygenate that the program requires to be blended into RFG could counter the potential fuel severity benefits. However, the effect of oxygenates must be considered for all fuels under the detergents program and is therefore not a particular concern with respect to RFG. Beginning in the year 2000, more stringent RFG fuel reformulation requirements will take effect, and may result in more substantial reduction in deposit-formation severity (mainly, a large sulfur reduction).

Anticipating that RFG may cause changes in gasoline severity, EPA considered including a separate detergent certification option for use in RFG. In the NPRM, EPA proposed the adoption of either a required or optional RFG certification option and asked for comments on these potential options. The oil industry favored a separate RFG option as long as it was not required. However, EPA recognizes that sufficient RFG survey data is not yet available for differentiating the deposit-forming tendency of RFG from conventional gasoline, or from which to establish test fuel specifications for an RFG test fuel. When additional data becomes available, the Agency intends to review the RFG severity parameter levels and compare them to other pools of gasoline. If a review of the survey data shows that there is indeed a significant difference in the severity of RFG, EPA may propose an RFG option in a future rulemaking. In the meantime, additives may be certified with a separate treat rate for RFG based on a refinery's own segregated RFG pool using the procedures put into place for the fuel-specific certification option. Otherwise, additives which are certified under any geographic option may be used in RFG at the certified treat rate.

5. Recertification Requirements. In the NPRM, EPA discussed a possible mechanism whereby national or PADD recertification could be required if the composition of the gasoline pool in question changed sufficiently to bring the adequacy of deposit control into question. For this purpose, EPA would monitor trends in the composition of the respective gasoline pools, and would periodically recalculate the national and PADD percentile concentration values for the relevant parameters. A need for recertification would be indicated if the newly calculated 50th percentile level of any one of the monitored fuel parameters was greater than or equal to the 60th percentile level in the original fuel survey data.

However, to require recertification under the national and PADD certification options would entail the adoption of new test fuel specifications, which would most appropriately occur through a subsequent rulemaking. Thus, today's rule does not include any provisions that would automatically trigger national or PADD-based recertification requirements. If EPA should determine in the future that gasoline composition has shifted to such an extent to suggest that detergents certified pursuant to the test fuel specifications in today's final rule may no longer provide sufficient deposit control protection, then EPA will publish a public notice that explores potential recertification requirements and seeks public comment.

D. Fuel-Specific Certification Option

1. General Description. The fuel-specific certification option proposed in the NPRM is also being finalized in today's rule. This option provides fuel and additive manufacturers an opportunity to tailor certification test fuels and subsequent detergent additive treat rate requirements to the unique characteristics of segregated pools of low-severity gasoline. These special gasoline pools may be produced from inherently mild crude oil or, in other cases, from refinery practices that reduce the deposit-forming tendency of the gasoline. Such gasoline may require reduced concentrations of detergent additives to meet the detergency requirements. Reduced additive concentrations, when multiplied by the large volume of gasoline that is produced, could provide a refiner or other fuel manufacturer with a substantial savings in additive costs. To take advantage of this opportunity, however, the fuel manufacturer must be able to segregate its special gasoline pool(s) from the general fuel supply until the gasoline has been blended with

the detergent additive specifically certified for use in this fuel. Once properly additized, the gasoline need not be segregated from other additized gasoline.

The fuel-specific option requires demonstration of the deposit control performance standards through testing of a detergent additive in a test fuel that is representative of the subject segregated gasoline pool. To determine the composition and characteristics of the segregated pool, certifiers are required to measure the concentrations of aromatics, olefins, and sulfur in the gasoline, as well as the T–90 distillation point. These parameters are to be measured at least once per month over a twelve-month period at each refinery or other facility contributing to the defined gasoline pool, and a percentile distribution of these defining characteristics is to be constructed. A fuel sample, located from within the defined pool or blended from the refinery blendstocks normally used to manufacture this pool, and containing each of the parameters at a level no less than the 65th percentile value of the entire pool, is then required to serve as the test fuel (see Section VI.B., below, and § 80.164(c)(2)).

Fuel-specific certification is fundamentally different from all other certification options, in that the precise test fuel specifications are defined by the certifier (under prescribed procedures) rather than defined by EPA and codified in the regulations. Thus, the certifier under the fuel-specific option must be a person who has access to and control over the subject gasoline supply. Frequently, this will be the refiner or other fuel manufacturer. EPA anticipates cooperation between additive and fuel manufacturers in implementing the fuel-specific option. The additive manufacturer retains responsibility for (1) the registration of its detergent additive, and (2) proper labeling of the additive as use restricted. In this instance, however, it may be the fuel manufacturer, or another party with title to and access to the segregated fuel supply, who takes responsibility for certification instead of the detergent manufacturer.

Use of a detergent under the conditions of a fuel-specific certification is restricted only to the defined pools of gasoline produced by or distributed from the facilities included in the fuel composition survey. Furthermore, as described in detail below, the certification will become invalid if the composition of the subject gasoline pool changes beyond a prescribed amount.

2. Variants. The fuel-specific option, like all other certification options, gives registrants the flexibility to certify with non-oxygenated, oxygenated, and/or oxygenate-specific test fuels. Data indicates that non-oxygenated fuels have a lower deposit forming tendency than oxygenated fuels and thus require lower concentrations of detergent additives to provide deposit control. Furthermore, because the deposit-forming tendency of oxygenated fuels varies from one oxygenate to the next, some oxygenated fuels may require a lower additive concentration than others. As mentioned previously, substantial savings could result from tailoring the detergent concentration requirements to the deposit-forming characteristics of the fuel. Accordingly, fuel manufacturers using the fuel-specific option may further optimize their detergent use by certifying under one or more oxygenate-related suboptions. These suboptions are implemented for fuel-specific certification in the same manner as for national or PADD certifications.

EPA is also aware that some gasolines have such extremely low deposit-forming tendencies that they may require only a PFID control additive or, perhaps in some cases, no detergent additive at all. In these special situations, certifiers may provide EPA with PFID and IVD test results under the fuel-specific option to demonstrate that a deposit control additive is not necessary for deposit control.

3. Monitoring and Recertification Requirements. The certifier under the fuel-specific option is required to monitor fuel composition on a monthly basis, and must provide an annual report to the Agency on the composition of the gasoline covered by the certification and how the composition deviates from baseline data. Recertification will be required if the composition of the gasoline pool changes such that the new 50th percentile concentration of any non-oxygenate fuel parameter (i.e. aromatics, olefins, sulfur, or T–90) exceeds the 60th percentile concentration reported in the original certification letter. New percentiles are calculated on an annual basis using the last 12 months of data. If the baseline percentile level is exceeded, the detergent blender will be required to stop using the fuel-specific detergent until recertification is complete and, in the meantime, must substitute either a national or appropriate PADD-certified additive within 45 days of the certification renewal date on which the recertification became necessary to avoid a violation. The fuel-specific detergent may have also been certified under the national or PADD certification options. If so, the same detergent additive may be used at the appropriate national or PADD-certified treat rate.

V. CARB Certifications

A. Background

Section 211(c)(4)(A) of the Clean Air Act generally prohibits states from adopting their own state fuel programs to control motor vehicle emissions, once EPA has regulated a fuel characteristic or component under 211(c)(1). EPA's adoption of a Federal deposit control additive program would therefore preempt certain state fuel programs. However, section 211(c)(4)(B) clarifies that the state of California is not subject to this prohibition. CARB has in fact implemented a detergent additive certification program effective January 1, 1992 (Title 13, Section 2257 of the California Code of Regulations). EPA determined that a CARB detergent certification would provide adequate demonstration that a detergent could be used to meet Federal detergent performance requirements under the Federal interim program.[15]

To ensure that the CARB detergent program would continue to provide a level of deposit control protection equivalent to that of the Federal program, once the Federal certification program was implemented, the Agency proposed that the applicability of a CARB detergent certification would be limited to gasolines sold in PADD V. EPA's judgment that CARB-certified detergents would provide adequate deposit control performance in all PADD V gasolines was based on the similarities in the gasoline composition (and hence deposit forming tendency) between California and the rest of PADD V, and the similarities between CARB's and the proposed Federal deposit control performance requirements. EPA proposed that PADD V gasoline additized with CARB-certified detergents (CARB-based PADD V certification) would be subject to the same use restrictions as gasoline certified under the other PADD-specific options.

Public comment was in agreement with EPA that, for California gasoline, a CARB-certified detergent would provide at least as effective deposit control as a detergent meeting Federal detergent certification requirements. However, commenters disagreed with each other on the extent to which a CARB-certified additive could be used to satisfy Federal requirements for non-California gasoline. The automotive industry

[15] A detailed comparison of the CARB and Federal detergent programs is included in the Summary and Analysis of Comments.

stated that CARB-certified detergents would not provide adequate deposit control protection for non-California gasolines because of differences in fuel composition, particularly under CARB's Phase II reformulated gasoline requirements. Some commenters from the petroleum industry supported the applicability of a CARB certification within PADD V, while others stated that a CARB certification should be applicable nationwide provided that CARB certification fuel parameter levels meet EPA requirements. Other commenters stated that a CARB certification should be accepted nationwide in order to avoid the economic burden on small and independent refiners which would result from being required to meet two sets of certification requirements.

B. Applicability of CARB Equivalent Certification

To determine the appropriate applicability of the CARB certification program, EPA compared the level of deposit control protection which will be provided under the Federal detergent certification program finalized today to that provided under CARB's program (see the Summary and Analysis of Comments for an extensive discussion). In conducting this analysis, EPA compared the performance standards, test procedures, and test fuels of the two programs, and concluded that they were sufficiently similar to ensure that the use of a detergent certified under CARB's current detergent program in California gasoline will provide at least as effective deposit control as a detergent meeting Federal certification requirements. However, implementation of California Phase II RFG requirements has greatly widened the compositional differences between California and non-California gasolines. A detergent certified for the relatively low-severity conditions of California Phase II gasoline can no longer be expected to provide adequate deposit control in gasoline in the other PADD V states or elsewhere in the nation. Thus, EPA will accept data which supports a valid CARB detergent certification as sufficient demonstration that a detergent additive is capable of satisfying Federal gasoline detergency performance standards for CARB phase II RFG, but not for non-California gasolines.

Certain changes proposed by CARB for its detergent program would, if implemented, serve to make the two certification programs even more similar. However, if CARB should implement other, unanticipated changes, then EPA would evaluate whether such changes would reduce the acceptability of CARB-certified detergents in meeting Federal gasoline detergency requirements, and would propose changes to these applicability provisions through another rulemaking if warranted.

To ensure that a CARB-certified detergent is only used to meet Federal detergency requirements in California phase II RFG, the gasoline must be additized in California, or sold or dispensed to the ultimate consumer in California (or to parties who sell or dispense to the ultimate consumer in California), or both. Some commenters suggested that EPA should allow CARB-certified detergents to be used in gasoline sold in all PADDs, provided that the severity parameter levels in the gasoline did not exceed the severity limits in the CARB certification. EPA believes this approach is not feasible, since it would require a complex set of fuel composition monitoring requirements similar to those proposed under the two-tier certification scheme (see Section IV.B) which the Agency has determined would not be cost effective. EPA does not believe that requiring all gasoline sold outside of California to meet Federal detergent certification requirements would cause significant financial hardship to smaller gasoline marketers, as some commenters suggested. The costs to these marketers of using a CARB-certified detergent would be similar to the costs of using a Federally certified detergent, and the necessary infrastructure is likely to exist already in the fuel marketers' facilities outside of California due to their obligation to comply with the interim Federal program. EPA believes that use of CARB-certified detergent additives in non-California gasolines would not provide adequate deposit control protection. Thus, to allow small gasoline marketers to use CARB-certified detergents in non-California gasolines could significantly reduce the emissions control benefits of this program.

VI. Certification Test Fuels

A. National and PADD Certification Test Fuels

1. Proposed Test Fuel Requirements. Under the proposed certification test fuel requirements, testing to demonstrate detergent additive effectiveness would be conducted using test fuels containing specified levels of five parameters (olefins, sulfur, aromatics, T–90 distillation point, and oxygenate content) that have been shown to affect gasoline deposit-forming tendency. The minimum levels of these severity factors in the test fuels proposed for each certification option corresponded with values at the 55th to 65th percentiles of the 1989–1991 AAMA fuel survey data for the gasoline pool covered by the certification option in question (e.g., national, PADD, premium, etc.).

EPA also discussed in the NPRM its concerns that the specified level of these fuel severity factors may not completely define a gasoline's deposit-forming severity. If this were the case, detergent certifiers might blend certification test fuels that contained the required levels of the fuel severity factors, but nevertheless were not representative of in-use gasoline deposit forming tendency. To help account for unknown factors in gasoline composition that might affect fuel severity, EPA proposed that gasoline samples for certification testing must be drawn from normal production gasoline stock (finished commercial gasoline) taken from normally operating refinery and/or terminal facilities. In addition, the test fuels required for each certification were to be drawn from separate production/distribution facilities in different areas of the nation. This requirement would tend to increase the certainty that unknown severity factors would be represented by ensuring that various refinery stocks were tested, and would act as a screen to prevent the use of inappropriately mild (i.e., low deposit-forming severity) fuels. It would also serve to limit the opportunity to select test fuels from refineries that, for unidentified reasons, tend to produce gasoline with a relatively low deposit-forming tendency. To ensure that the certification process accounts for any interactive effects between detergent additives and non-detergent additives, EPA proposed that the type and concentration of non-detergent additives in the certification fuels must not differ in any way from the fuels that are dispensed to the ultimate consumer.

EPA recognized in the NPRM that it could be difficult for an additive certifier to locate a single finished gasoline which contained all four nonoxygenate severity factors at the required levels. To reduce this difficulty while ensuring adequate test fuel severity, EPA proposed that testing for each certification option be conducted using a matrix of four test fuels, each containing a different combination of two of the nonoxygenate severity factors at levels no less than the required 55th to 65th percentile values. Alternatively, additive certifiers could perform testing in as few as two fuels, as long as each of the severity parameters was present at the required levels in at least one such fuel.

The proposed minimum of two test fuels was believed to be necessary to account for the deposit-forming tendency of oxygenates. EPA proposed that one of the test fuels would be required to contain 10 volume percent ethanol, and another would be required to contain 15 volume percent MTBE. These oxygenates were selected for testing because they were expected to have the most significant impact on gasoline deposit-forming tendency of the oxygenates within their respective oxygenate classes (alcohols and ethers), and because they were expected to be the two most widely used oxygenates.

EPA also proposed that certification test fuels be contained in new, sealed containers during transportation and storage and that these fuels could be stored no longer than one full year from when they were drawn from the refinery before testing.

2. Final Test Fuel Requirements.

a. Test Fuel Source and Screening Requirements. In response to the NPRM, commenters stated that finding finished fuels that met the test fuel compositional specifications would be extremely burdensome and impractical, and that EPA should instead allow the use of refinery blendstocks to formulate certification fuels. To ensure that test fuels were not inappropriately mild, they stated, test fuel blenders could be required to provide EPA with documentation of the source and identification of all of the refinery blendstocks used, as well as the fuel parameter levels in the finished test fuel. Finally, they stated that the finished test fuel should be required to conform to ASTM D 4814, for commercial gasolines. In combination, the commenters felt that this information should alleviate EPA's concern about using blendstocks for formulating test fuels.

EPA acknowledges that the proposed requirement that test fuels be drawn from finished gasoline stock is a burdensome one. However, the ideas raised by the oil industry, while somewhat helpful, are not sufficient to prevent intentional manipulation of test results, or to ensure that test fuels will adequately represent the deposit-forming severity of in-use gasoline.

Thus, in the Reopening Notice, EPA asked for comment on other potential approaches to ensure the adequacy of test fuels if they were created from refinery blendstocks (see Summary and Analysis of Comments), and has finalized one of these approaches in today's rule. Specifically, the final rule requires that, to be eligible as a test fuel, a candidate nonoxygenated, unadditized fuel must be tested to demonstrate its severity by causing the formation of at least a specified level of IVD in a 10,000 mile BMW test.

In its comments, API stated that increasing the required number of expensive BMW tests just for this purpose would be cost-ineffective and unnecessary. However, most other commenters supported EPA's proposed demonstration test. Some commenters stated that, if a performance severity test were established, it should be the exclusive requirement for test fuel qualification, and that fuel parameter requirements should be dropped. Other commenters stated that if such a test were established, it should be allowed as an alternative to meeting fuel parameter requirements in qualifying test fuels for certification testing purposes.

EPA believes that the performance-based approach for qualifying test fuels provides a practical and effective way to screen out test fuels of inappropriately low deposit-forming severity that otherwise conform to compositional specifications. Thus, this final rule allows the use of refinery blendstocks for formulating test fuels, provided that the unadditized test fuel severity is demonstrated by IVD testing. If test fuels are drawn directly from finished gasolines, they do not have to undergo severity demonstration testing to qualify for use in certification tests.

EPA disagrees with the comment that a test fuel deposit demonstration criterion will not be cost-effective. In the absence of this assurance, EPA cannot be confident that test fuels created from refinery blendstocks will be adequate to assure proper additization of the in-use gasoline to achieve the emission reduction goals of the detergent certification program. In comparison with the original proposal, which would have required detergent certification testing to be conducted in up to four specified test fuels, each to be located from normal finished fuel supplies, the cost of a single demonstration test for a batch of test fuel is modest. Furthermore, the costs for test fuel blending and IVD demonstration testing can be shared. For example, a testing laboratory can qualify a large quantity of test fuel and then use it for certifying multiple detergent additives. In these and other ways, the costs associated with the test fuel IVD demonstration requirements can be spread over a large number of detergents or companies. Thus, EPA believes that the test fuel deposit demonstration requirement is reasonable and necessary, and that it can be met in a very cost-effective manner.

EPA also disagrees with the comment that certifiers should be given the option to qualify test fuels either by meeting the requirements of the IVD demonstration test or by meeting the test fuel compositional criteria, rather than being required to satisfy both. The fuel parameter specifications are necessary to set the overall stringency of the test fuel and to provide reasonable assurance that the composition of the deposits formed is representative of deposits that result from in-use gasoline. The deposit demonstration test is necessary to confirm that the level of stringency prescribed by the fuel parameter specification has been achieved. Thus, both types of test fuel criteria are necessary to assure the validity of subsequent detergent certification testing.

EPA received varied comments regarding an appropriate qualification standard, i.e., the minimum amount of IVD that the unadditized test fuel must generate during the demonstration test in order to qualify for use in detergent certification testing. Suggestions ranged from 175 mg of deposit formation per valve up to 500 mg per valve. To resolve this issue, EPA reviewed available BMW IVD test data on unadditized test fuels.[16] Tests on gasoline of ''typical'' deposit-forming tendency, i.e., containing fuel severity factors at generally lower levels than required in the detergent certification test fuels and more representative of average severity gasolines, were selected as the subject of this study. The results of this analysis showed that a typical unadditized nonoxygenated fuel can generally be expected to produce approximately 290 mg of deposits over the accumulation of 10,000 miles in a BMW test. Uncertainty in the 5,000 mile test data precluded EPA from considering a standard based on that shorter test.[17]

Based on this analysis, the final rule requires the accumulation of at least 290 mg of IVD using unadditized, nonoxygenated fuel, during the 10,000 mile BMW test, for qualifying base test fuels for the national certification option. The same standard will apply to PADD certifications in those PADDs where the IVD severity factor distributions tend to be similar to or higher than the national levels (PADDS I and III). For the other PADDs characterized by fuels which tend to

[16] Memorandum to the docket from David Swain, OMS, entitled ''Data Review of Intake Valve Deposit Weights for Detergent Certification Fuel Screening'', Docket item IV-B–07.

[17] It should be noted that the 5,000-mile deposit demonstration test, in addition to its technical shortcomings, would save only about 25 percent of the cost of a 10,000-mile test.

have lower levels of severity factors most related to IVD formation, the standard is adjusted downward by 10 percent. For the premium certification test fuels, the standards are reduced an additional 10 percent below the respective all-grade test fuels. Thus, to qualify for generic certification testing in PADDs II, IV, and V (excluding California), the unadditized, nonoxygenated test fuels must demonstrate a minimum accumulation of 260 mg of IVD (i.e., 90 percent of 290 mg) in a 10,000 mile BMW test. The 260 mg standard also applies to the premium option at the national level and in PADDs I and III. For the premium option within PADDs II, IV, and V (excluding California), test fuels meeting the applicable nonoxygenate fuel parameter levels must accumulate at least 235 mg of IVD (i.e., 90 percent of 260 mg). These IVD demonstration criteria are expected to achieve the goal of the IVD demonstration test while ensuring that the applicable fuel parameter specifications remain the primary contributor to test fuel severity. At the discretion of the certifier, the IVD severity demonstration test may be terminated at fewer than the 10,000 miles specified in the test procedure. However, the IVD demonstration criteria specified above (for the 10,000 mile test length) must be satisfied for the test to qualify for certification purposes. Once the engine has been disassembled to examine the IVD (other than by removing the fuel injectors for boroscope inspection) the test must be terminated.

The IVD demonstration is to be conducted on base test fuels, i.e., fuels which conform to the specified nonoxygenate severity factor requirements, but do not contain oxygenate (or detergent). Once qualified for use in certification testing, a base test fuel can be blended with ethanol for use as a generic test fuel, and/or with other oxygenates for use in oxygenate-specific certification testing options.

As suggested by a commenter, the final rule requires test fuels to conform to ASTM D 4814 specifications.[18] To further ensure the representativeness of test fuels and the composition of deposits, the rule also requires the certifier to provide to EPA documentation of the source and identification of all of the refinery blendstocks used, as well as the fuel parameter levels in the finished test fuel. Consistent with the proposal, test fuels for national and PADD certification may not be formulated using refinery blendstocks from a gasoline pool which has been certified as a fuel-specific pool.

b. Test Fuel Severity Factors. The weight of public comment supported the proposed five severity parameters (aromatics, sulfur, olefins, T–90, and oxygenates) identified by EPA to characterize the severity of gasoline for forming IVD and PFID. As stated above, some commenters encouraged EPA to include additional severity factors to these five; however, the information available on these potential factors was not sufficient to conclude that any other factor would be appropriate. Some commenters questioned whether these factors should be considered equal in their severity, especially with respect to their specific effect on PFID and IVD formation. However, EPA could not find sufficient information to justify giving more weight to one severity factor over another for either form of deposit. For these reasons, EPA is finalizing the detergent certification program based on the five severity factors weighted equally as proposed.

While the majority of commenters agreed that the impact of oxygenates should be accounted for in the definition of certification test fuels, the Renewable Fuels Association (RFA) commented that only limited test data is available to indicate that a higher detergent treatment rate may be necessary in oxygenate blends. EPA disagrees. Data from a number of sources indicates that the addition of oxygenates, in particular ethanol, has a substantial impact on gasoline deposit-forming tendency.[19] Also, most commenters stated that testing on fuel containing 10 volume percent ethanol provides a more difficult test of a detergent's deposit control efficacy than testing on a fuel that contains 15 volume percent MTBE, and hence EPA should allow testing on a single ethanol-containing certification fuel.

Consistent with the weight of available test data and public comment, ethanol is included in the test fuel specifications related to each of the generic certification options, i.e., those options which certify a detergent for use in any oxygenated or nonoxygenated gasoline in the related PADD-specific or national pool. To ensure representation of the maximum deposit-forming effects of ethanol (or other oxygenate, in the case of an oxygenate-specific certification option), additive certifiers must blend the oxygenate into the test fuel so that its final concentration is no less than the maximum concentration that the oxygenate can be used in commercial gasoline. For ethanol this corresponds to the addition of ethanol so that the final concentration in the certification test fuel after blending is no less than 10 percent by volume. In the case of MTBE, this corresponds to the addition of MTBE so that the final concentration in the certification test fuel after blending is no less than 15 percent by volume. Oxygenates used for certification testing purposes must be of fuel-grade quality. The use of oxygenates that are specially processed to remove impurities is not allowed.

c. Number and Severity of Test Fuels. As mentioned earlier, EPA proposed in the NPRM that a detergent additive be tested in at least two, and up to four test fuels, for each certification option selected. In commenting on the proposal, API, CMA, and others from the petroleum and detergent additive industries stated that this was unnecessary and that EPA should allow certification testing to be conducted using a single test fuel. On the other hand, AAMA stated that requiring more than one certification test fuel would allow for the inclusion of more refinery streams in the formulation of certification test fuels, thereby providing more representative results. Requiring multiple test fuels would also tend to help ensure that yet-to-be-identified fuel severity factors are represented in the certification test fuels.

As described above, EPA decided to allow use of test fuels formulated to the severity factor specifications from refinery blendstocks as an alternative to using test fuels drawn from finished commercial fuel supplies. This decision eliminates one of the most important reasons for which multiple test fuels were originally proposed, i.e. to ensure that detergents are tested in the presence of adequately high levels of fuel severity factors, without creating the impractical requirement that one finished fuel must be found which happens to contain the specified levels of all the requisite parameters. In addition, as described above in the section on severity factors, EPA has determined that testing on ethanol-containing fuel will suffice to demonstrate a detergent's effectiveness in other oxygenated fuels, obviating the need for separate tests to be conducted in the presence of ethanol and MTBE.

Reflecting these changes in the program's requirements, EPA has further simplified the certification

[18] ASTM D 4814–95c, ''Standard Specification for Automotive Spark-Ignition Engine Fuel'', 1995, is incorporated by reference in 40 CFR 80.164.

[19] See the extensive discussion in the NPRM, the memorandum to the docket entitled ''Data Review of Intake Valve Deposit (IVD) Weights for Detergents Certification Fuel Screening'', by David Swain, OMS (Docket item IV–B–07), and the Summary and Analysis of Comments.

testing program by requiring detergent performance testing in only one test fuel for each certification option selected. Of course, this does not preclude any additive certifier from performing multiple tests itself on a variety of test fuels derived from different sources. Such redundancy would help to ensure that the additive is as effective as claimed in all the gasolines in the gasoline pool.

Having decided to require one test fuel per certification option, EPA also reviewed the required levels of test fuel severity factors. For the NPRM, EPA originally derived the nonoxygenate fuel parameter specifications for each of the fuels in the proposed test fuel matrices through a complex process based on ensuring no less than a 1-in-5 chance that a randomly selected commercial fuel would meet the required fuel parameter levels. As mentioned previously, this process resulted in proposed fuel parameter levels corresponding to the 55th to 65th percentile range of concentrations relative to the national gasoline pool.

Although commenters generally opposed the 20 percent availability approach EPA used to determine test fuel specifications, there was broad support for the 65th/55th percentile fuel parameter levels derived from this approach. EPA believes it is appropriate to require that each nonoxygenate fuel parameter be represented at its respective 65th percentile level, in the applicable gasoline pool (national, PADD, premium, etc.). This decision is based on the facts that: (1) test fuels may now be specially blended so that fuel parameter specifications no longer need to be linked to fuel sample availability; (2) there is no conclusive data on which to weight any one fuel parameter's impact on fuel severity above another's, and (3) the 65th percentile levels predominated in the originally proposed test fuel matrix.

The required parameter levels are to be met in the certification test fuel before the addition of ethanol. EPA analyzed AAMA fuel survey data, comparing levels of the nonoxygenate fuel parameters in nonoxygenated fuels to those in oxygenated fuels (all oxygenates included in the analysis).[20] While the results of this study were not totally consistent, they indicated that the parameter levels in oxygenated fuels tended to be lower than those in nonoxygenated fuels. This result suggests a dilution effect when oxygenate is added. Thus, specifying that the prescribed 65th percentile levels be met in the test fuel before the addition of the oxygenate appears to conform to the real-world behavior of in-use fuels.

In its comments, API urged EPA to use test method reproducibility to establish enforcement tolerances, i.e., levels below the specifications which would still be considered to be in compliance with the specifications, for the measurement of test fuel parameters (per ASTM methods). EPA rejects this approach. As with the approach taken for the deposit control performance standards, EPA believes that the required test fuel parameter levels should be absolute minimums which must be satisfied. Allowing downward variability in meeting test fuel compositional requirements would compromise the program's emissions control benefits as would allowing downward variability in meeting deposit control testing standards.

d. Other Issues. EPA received a number of comments on its proposed requirement that the non-detergent additives present in certification fuels must be representative of those used in commercial gasoline. The petroleum and detergent additives industries stated that it is unlikely that non-detergent additives affect deposit-forming tendency because they are present in commercial fuels at very low concentrations. Hence, they stated that it was not necessary to require that non-detergent additives be present in certification test fuels.

EPA's chief concerns regarding the additive content of test fuels are (1) that no detergent-active substances be present in the test fuel other than those substances which are part of the detergent additive package being tested, and (2) that the deposit control performance demonstrated by the detergent package in the test fuel not be adversely affected by other additives encountered in use. In reviewing this subject, EPA concluded that it is not practical at this time, nor has a significant need yet been demonstrated, to require specific nondetergent additives to be present in certification test fuels. EPA has also concluded that requiring the identification of nondetergent additives in the test fuel would not very effectively address EPA's concerns; moreover, many certifiers would not be able to fully comply with such a requirement.

Thus, consistent with the views of the commenters, today's rule is generally not prescriptive with respect to nondetergent additive use in certification test fuels. Typical nondetergent additives may be, but are not required to be present in the test fuels. Also, the presence of such additives does not need to be reported. The addition of detergent-active substances other than the additive being tested is specifically prohibited. On the other hand, if EPA subjects a certified detergent to confirmatory testing, then EPA may include in its test fuel any nondetergent additive which can reasonably be expected to be encountered in use. If the performance of the certified detergent is adversely affected by the presence of such additive, to the extent that the detergent fails the confirmatory test, then the certification might be jeopardized (see § 80.161(e) regarding the disqualification of detergent additives).

The additive industry disagreed with EPA's proposed requirement that certification test fuels must be contained in new, sealed containers during storage and transportation, claiming that this requirement would be infeasible, unreasonable, and expensive, and would generate a lot of waste. Instead, it said, clean tank trucks should be adequate for the transport and storage of test fuels. EPA is persuaded that the use of clean tank trucks or other containers will ensure that test fuels are not contaminated or otherwise altered in a way that might bias certification test results, and that requiring the use of new sealed containers is unnecessary to maintain sample integrity. Therefore, the certification program requires that certification test fuels be transported and stored in clean tank trucks or other containers. In response to EPA's request for data on the affect of fuel storage on test fuel severity, comments from the additive industry suggested that the passage of time would tend to increase test fuel severity due to the effects of fuel oxidation. Therefore, the use of test fuel which has been stored would tend to make the performance test more stringent. EPA agrees with these comments. Furthermore, no data is available to indicate that gasolines may become less severe over time. Therefore, EPA will not limit the time a test fuel sample may be stored before certification testing is conducted.

The majority of commenters were in agreement with EPA's proposal to define test fuel parameter levels based on an analysis of the three most current years of AAMA fuel survey data. However, several commenters from the petroleum industry stated that EPA should use refinery baseline data collected under the Reformulated Gasoline Program. EPA disagrees with this comment. The RFG baseline data

[20] ''Analysis of Differences in Nonoxygenate Fuel Parameter Levels in Oxygenated and Nonoxygenated Gasolines: 1992–1994 American Automobile Manufacturers Association Data'', George Hoffman, DynCorp/DynTel, Docket item IV–B–08.

pertains to 1990 only. Therefore, it would not provide as current, nor as representative, a characterization of longer-term trends in fuel quality as the proposed use of the average of three years of AAMA data. The analysis presented in the NPRM was based on 1989 through 1991 AAMA fuel survey data. However, more recent AAMA data is available now. Thus, consistent with the proposal and the support expressed in the public comment, the fuel specifications for detergent certification testing have been updated to reflect the results of the 1992–1994 gasoline AAMA survey data.[21]

B. Fuel-Specific Certification Test Fuels

Unlike the test fuels described above for certification testing under the national and PADD options, which are designed to represent fungible gasolines, EPA proposed that the certification test fuels under the fuel-specific option would be tailored to represent the unique deposit-forming tendency of segregated gasoline pools. As proposed, the additive certifier would have to establish its own test fuels specific to its gasoline pool. To characterize the severity of the test fuel, the certifier would use the four nonoxygenate parameters specified under the national and PADD certification scheme for nonoxygenated fuels, and would include oxygenate as a severity parameter if oxygenate was used in the specified gasoline pool. (Otherwise, the detergent would be restricted to use in non-oxygenated fuel-specific gasoline.) EPA proposed that, subject to EPA's prior approval, other parameters could be used in addition to the standard four or five parameters. In order to use another parameter, EPA proposed that the certifier of a fuel-specific detergent would submit test data to EPA to demonstrate that the subject parameter affects the deposit-forming severity of the segregated gasoline pool for which the certification is sought. In addition, the applicant would submit a test method approved by the American Society for Testing and Materials (ASTM) to measure the additional fuel parameter in finished gasoline. EPA proposed that the Agency would respond to such requests within 90 days after receiving the test data to support the use of the additional parameters.

EPA received several comments expressing support for the proposal to require certifiers of fuel-specific detergent to characterize the composition of their segregated gasoline pool. Under this final rule, the certifier must create and maintain fuel survey data from each of the facilities that contribute to the subject gasoline pool for a complete year. At a minimum, this data must include monthly measurements of gasoline aromatics, olefin, and sulfur content, and T–90 distillation point. The certifier must also calculate and provide to EPA the percentile concentrations or levels for each of the fuel parameters studied for the segregated pool as a whole (see § 80.164(c)). The use of such additional parameters will not require prior approval by EPA since EPA judged that EPA's prior approval was not necessary to ensure their proper use. However, to be taken into account by EPA in case of confirmatory testing (see Section VII.D.), such additional parameters must be surveyed, analyzed, and reported according to the same requirements applicable to the four standard parameters.

Consistent with the certification program's approach for national and PADD certification test fuels, under this final rule, testing for generic fuel-specific certification must be conducted using a single test fuel that has nonoxygenate fuel parameter levels at or above their respective 65th percentile values for the subject segregated gasoline pool as determined by the fuel marketer's required fuel survey analysis. Also paralleling the national and PADD certification options, a nonoxygenated fuel-specific test fuel may be blended with ethanol (to a concentration of at least 10 volume percent ethanol in the finished fuel) to qualify as a test fuel for certifying a detergent for use with any oxygenate. The requirements for oxygenate-specific fuel-specific certification test fuels also parallel those under the national and PADD certification options. Certification fuels used in conducting testing to demonstrate that either a PFID-only detergent or no detergent additive are needed to satisfy EPA's IVD/PFID control requirements must meet the same compositional criteria described above.

No specific comments were received on whether EPA should apply an IVD demonstration fuel qualification criterion under the fuel-specific certification option. Gasoline within a given fuel-specific gasoline pool is likely to be much less variable in composition than fungible gasoline for several reasons. The sources contributing to a fuel-specific pool will likely be limited in number and belong to a single refiner. In addition, refining parameters would be more closely controlled to maintain the unique composition that defines the segregated fuel-specific gasoline pool. The fuel composition monitoring and associated detergent recertification requirements under the fuel-specific option will act to limit the variability in the composition (and thus the severity) of such gasoline pools. Thus, under this final rule, fuel-specific certification test fuels are not required to satisfy deposit demonstration test requirements.

C. Summary of Test Fuel Requirements

The following table summarizes test fuel compositional requirements under the different national, PADD, premium, and fuel-specific certification sub-options.[22]

[21] ''Statistical Analysis Methodology: 1992–1994 American Automobile Manufacturers Association Data'', George Hoffman, CSC, Docket item IV–B–06.

[22] See § 80.164 of the regulatory text for specific values under the different certification options and suboptions. 65th percentile nonoxygenate fuel parameter levels must be met prior to the addition of the required oxygenate.

TABLE VI–1—SUMMARY OF TEST FUEL REQUIREMENTS; GENERIC DETERGENT CERTIFICATION

[For use in any gasoline grade, with any oxygenate]

Gasoline pool	Nonoxygenate fuel parameters	IVD demonstration standard (mg)	Oxygenate/concentration
National	65th percentile in national survey	290	10% Ethanol.
PADDs I and III	.....do	290	Do.
PADDs II, IV, and V	.....do	260	Do.

PREMIUM DETERGENT CERTIFICATION

[For use in premium gasoline, with any oxygenate]

Gasoline pool	Nonoxygenate fuel parameters	IVD Demonstration Standard (mg)	Oxygenate/concentration
National	65th percentile in national/premium survey	260	10% Ethanol.
PADDs I and III	65th percentile (premium) in respective PADD	260	Do.
PADDs II, IV, and V	.....do	235	Do.

NONOXYGENATE OR OXYGENATE-SPECIFIC CERTIFICATION

Gasoline pool	Nonoxygenate fuel parameters / IVD Demonstration standard (mg)	Oxygenate/concentration
Any Grade:		
no oxygenate	Same as national or PADD generic certification shown above	None.
oxy specific		Max concentration.
Premium Only:		
no oxygenate	Same as national or PADD premium certification shown above	None.
oxy specific		Max concentration.

FUEL-SPECIFIC CERTIFICATION

Gasoline pool	Nonoxygenate fuel parameters	IVD demonstration standard (mg)	Oxygenate/concentration
No Oxygenate	65th percentile in the specified pool	none	None.
Any Oxygenate	.....do	.....do	10% Ethanol.
Specific Oxygenate	.....do	.....do	Specified oxygenate at maximum conc.

*Similar to the national and PADD certification case, fuel-specific certifications may be obtained for all gasoline grades or for premium gasoline.

Test fuel samples used in IVD and PFID performance testing for a given detergent must conform to identical qualification criteria, but need not be drawn from the same batch of gasoline. Likewise, the samples of the detergent additive package used in the required certification tests need not be from the same production batch, provided that both samples conform to the compositional information provided to EPA by the additive certifier.

D. Test Fuels for Leaded Gasoline Certification

The certification program retains the interim rule's specifications for leaded gasoline test fuels to allow use of existing test data to the greatest extent possible. Given the very low level of leaded gasoline use in the U.S., EPA believes that increasing the stringency of these test fuels would not result in an environmental benefit that would compensate for the cost incurred in conducting the additional testing which would be required.

E. Measurement of Gasoline Fuel Parameters

For the purposes of measuring the fuel parameters which define certification test fuels, EPA proposed to allow the use of specified ASTM procedures, as well as other procedures proposed for use under the RFG program (58 FR 11722, February 26, 1993). This proposal was expected to allow reasonable flexibility in test procedure selection while ensuring the needed measurement precision. EPA also wanted to coordinate testing and compliance requirements across the RFG and detergent additive rulemakings. To that end, the Agency proposed to incorporate into the final detergent additive program, as appropriate, any changes to the fuel parameter measurement procedures finalized in the RFG program.

Certifiers under the fuel-specific option may use additional fuel parameters to describe the composition of their segregated gasoline pools and to

define the required certification test fuels (see Section VI.B.). EPA proposed to require that ASTM-approved test procedures be used for measurement of such additional test fuel parameters under the fuel-specific certification option.

The RFG regulations, including final versions of the fuel parameter test requirements, were published by EPA on February 16, 1994 (59 FR 7716). In finalizing these test procedures under the RFG program, the Agency addressed some of the issues that were also raised in the context of the public comment on the detergent NPRM.[23] For the reasons discussed under the RFG program Federal Register notice, and in the interest of maintaining uniformity of fuel parameter testing requirements between regulatory programs, EPA is adopting the procedures finalized under the RFG program (40 CFR 80.46) for the required measurement of levels of sulfur, olefins, aromatics, T90, and oxygenate content under this final regulation. The use of alternate test procedures is not allowed except as provided for under the RFG program. As discussed in the final RFG rule, EPA believes that allowing the use of additional alternate procedures would result in uncertain quality and unacceptable variability of test results. EPA is currently considering modifying 40 CFR 80.46 to update the test procedure for the measurement of olefins. If such a change is adopted, and if other such revisions are implemented, they will naturally also apply to the fuel parameter measurement requirements under this rule.

Because EPA is not finalizing the proposed two-tier certification scheme with associated terminal fuel parameter monitoring requirements (see Section IV), the required measurement of fuel parameters will be limited to that necessary to formulate test fuels and to conduct fuel survey analysis under the fuel-specific certification option. EPA believes that restricting the procedures used to measure fuel parameter levels to those prescribed under the RFG program will not represent an undue hardship to the industry considering the limited fuel parameter measurement requirements.

No specific comment was received on EPA's proposal that additional test fuel parameters which may be used under the fuel-specific certification option must be measured according to ASTM procedures. Comment from the petroleum industry generally supported the use of ASTM-approved methods and any other test methods which may be specified for use under the reformulated gasoline program for use in measuring test fuel parameters. Since it is unclear what additional parameters might be used to define fuel-specific gasoline pools and the fuel parameters selected may not commonly be measured by industry, EPA now believes that it may be too restrictive to require to use of only ASTM-approved procedures. Given this concern, EPA will require that test procedures used to measure optional fuel parameters under the fuel-specific option must conform to reasonable and customary standards of repeatability and reproducibility, and reasonable and customary limits of detection and accuracy for the type of test procedure in question. ASTM-approved measurement procedures would conform to this requirement, as might others that have not received ASTM approval.

VII. Certification Tests and Performance Requirements

A. Certification Test Procedures

In the NPRM, EPA proposed test procedures to evaluate IVD and PFID control that were based on draft procedures under evaluation by ASTM. It was also proposed that, if these test procedures were finalized by ASTM, they would be incorporated by reference in this final rule. This proposal was supported in the public comment. ASTM has since finalized their IVD and PFID test procedures with minimal changes from the earlier drafts proposed by EPA, and the procedures are incorporated in this final rule.[24]

The IVD and PFID tests adopted by today's notice require an accumulation of 10,000 miles on a standard test vehicle. EPA proposed an alternative IVD test which could be conducted using an abbreviated 5,000 mile test cycle. However, EPA has determined that the use of such a shortened test cycle might result in a significant increase in test variability. Therefore, EPA will not accept results from this test for IVD certification testing purposes.[25]

The Agency is aware that ASTM is developing updated deposit control test procedures which might be finalized by ASTM shortly after this rule is published. Several commenters requested that EPA speed adoption of these procedures when they become available. EPA recognizes that, because these test procedures would use more current vehicle technology, they might provide an improved means of determining the IVD and PFID control requirements of modern vehicles. Therefore, the Agency is interested in expediting consideration of the adoption of these test procedures, particularly if they are finalized by ASTM in time to allow their potential use in meeting initial detergent certification testing needs. If EPA judges that the updated ASTM procedures are suitable for regulatory purposes, the Agency will either publish a proposal requesting comment on their adoption either as alternate or replacement procedures for the deposit control performance tests adopted by today's rule, or will publish a direct final rule for this purpose. A necessary criterion for the adoption of the updated procedures would be the determination of a correlation of test results from these procedures with the performance standards of the current procedures, or data that demonstrates that a specific performance standard for these procedures provides an appropriate level of deposit control performance.

B. Deposit Control Test Standards

1. PFID-Control Test Standard. For the PFID control test procedure finalized by today's notice, EPA proposed a performance standard of less than 5 percent flow loss in any injector over the accumulation of 10,000 miles. Public comment requested that EPA adopt the 10 percent standard which was widely used by industry to prevent driveability problems. Commenters stated that the 10 percent standard should be sufficient to prevent a PFID emissions increase given the stringency of the PFID test relative to typical in-use driving conditions.

EPA accepted the traditional industry PFID standard of 10 percent under the interim program to allow maximal use of existing test data. However, to ensure realization of the potential emission benefits to be provided by effective deposit control, the proposed 5 percent

[23] See the Regulatory Impact Analysis for the Reformulated Gasoline Final Rule, December 13, 1993, EPA Air Docket A–92–12, Docket item V–B–01.

[24] ASTM test method D 5598–94, ''Standard Test Method for Evaluating Unleaded Automotive Spark-Ignition Engine Fuel for Electronic Port Fuel Injector Fouling'', and ASTM test method D 5500–94, ''Standard Test Method for Evaluation of Unleaded Automotive Spark-Ignition Engine Fuel for Intake Valve Deposit Formation'' are incorporated by reference in 40 CFR 80.165(a) and (b) respectively. ASTM is currently considering revisions to the test validation criteria for these test procedures to provide more flexibility (See Docket item IV–E–58). When available from ASTM, EPA will evaluate the suitability of such revisions, and if appropriate, might undertake a rulemaking activity regarding their adoption.

[25] For similar reasons, EPA will not allow the use of the abbreviated 5,000 mile IVD test for demonstrating the deposit forming tendency of unadditized fuels. (See Section VI.A.4.)

standard is being adopted in the detergent certification program. The necessity of the more stringent performance standard follows logically from an understanding of the mechanism by which PFID cause exhaust emissions to increase. As was reviewed in the NPRM, the most significant factor appears to be the difference in PFID-related flow loss between one fuel injector and another.[26] Electronic fuel control equipment onboard the vehicle cannot adjust the air/fuel ratio for combustion efficiency in each cylinder; rather, it adjusts the air/fuel mixture in response to the average oxygen level in the exhaust. As a result, the fuel flow may be suboptimal for every cylinder. Some cylinders will be overfueled, causing HC and CO emissions to increase and fuel economy to decrease. In other cylinders, the combustion mixture will be overly lean, causing a NO_X emissions increase. Furthermore, as the disparity between cylinders rises, the combustion process in any cylinder will become less and less efficient.

The experience of auto manufacturers indicates that the average driver will tolerate some degradation in vehicle driveabiliy. When deposits increase to a level where the flow rate of one or more injectors is reduced by 10 percent or more, however, combustion efficiency and vehicle driveability will be impaired to the extent that driver complaints can be expected.[27] Thus, the 10 percent standard has been the traditional industry norm. However, it is clear that the efficiency of the combustion process may be significantly affected, and emission rates increased, well before this point. Because the main focus of the detergent certification program is the prevention of emission problems, not driveability problems, EPA believes the 10 percent standard to be inappropriate.

Although emission effects may begin as soon as any PFID begin to accumulate, a standard of zero percent would obviously not be reasonable. EPA has chosen instead to harmonize its PFID performance standard with that of CARB, which implemented the 5 percent standard under its regulation of detergent additives in January of 1992. Experience under CARB's program has shown that the 5 percent standard can be readily achieved using commonly available additive formulations. Furthermore, as discussed in the NPRM, the application of a 5 percent rather than a 10 percent PFID standard will usually not be the deciding factor in controlling the amount of detergent needed to pass the certification performance test requirements. Rather, in most cases, the treatment rate required for IVD control will be the controlling factor. Still, in those instances where PFID control requirements do affect the treatment rate, the 5 percent standard will offer adequate stringency to make the test meaningful from an emissions control standpoint.

2. IVD-Control Test Standard. For the IVD test, EPA proposed a performance standard deposit weight of less than 100 mg-per-valve on average over the accumulation of 10,000 miles. The public comment supported adoption of this standard. Also, this is the performance standard required by CARB. Based on the reasons discussed in the NPRM and the public's support, EPA is adopting the proposed 100 mg-per-valve IVD standard in this final rule.

C. Alternate Performance Requirements for Leaded Gasoline

The certification program, like the interim program, allows the use of either carburetor-type, PFID, or IVD/PFID detergents to comply with leaded gasoline detergency requirements. The responsibilities of fuel and detergent manufacturers regarding the requirements for leaded gasoline are otherwise the same as those described previously for unleaded gasoline.

D. Confirmatory Testing by EPA

EPA may conduct confirmatory testing on gasoline blended with a detergent additive to verify that the additive performs as well as or better than required by the deposit control standards finalized today. At its discretion, EPA may choose to conduct one or more of the prescribed vehicle tests on a detergent additive. For this testing, EPA would blend the additive in the designated test fuel at the minimum concentration specified by the manufacturer. The severity parameter levels in the test fuel would be equal to or less than that required for the respective test fuel. The test fuel may also contain any mixture of nondetergent gasoline additives found in commercial gasoline at the concentration normally used. For verification of a CARB-based certification, EPA would use the applicable CARB test procedures and standards. EPA would run the IVD and perhaps the PFID ASTM test and a carburetor test, and if the applicable performance standards were not met, the certification could be invalidated. (See Section III.A.3. and § 80.161(e) regarding the disqualification of detergent additives).

The final rule does not include tolerances to allow for test-to-test variability as requested by some commenters. EPA cannot establish test tolerances for the same reason ASTM was unable to specify precision parameters for their IVD and PFID test procedures. A sufficient amount of repeat tests using these tests is not available. Certifiers must therefore take into account a reasonable level of uncertainty in evaluating their test results and reporting the detergent's LAC. At its discretion, EPA may take such uncertainty into account when evaluating the results of any confirmatory tests it may conduct.

VIII. Enforcement Provisions

A. Overview

The enforcement provisions of the detergent certification program closely track those in effect under the interim detergent program promulgated on November 1, 1994. Following is a general outline of the enforcement provisions that will apply in the certification program. In general, these are the same enforcement provisions that apply under the current interim program, with certain revisions that make them more efficient and streamlined. (See section VIII(B) of this preamble for a discussion of the revisions to the interim rule's enforcement provisions.) Since the interim program is to continue in effect for non-certified detergents until the certification program becomes mandatory (on July 1, 1997 for detergent manufacturers, detergent blenders, and other upstream parties, and on August 1, 1997 for gasoline retailers and wholesale-purchaser consumers [WPCs]), revisions to the interim program's enforcement provisions will apply as of September 3, 1996. Enforcement provisions that are not revised by today's rule will continue to apply under both the interim and final certification programs.

For the convenience of the reader, many of the previously promulgated provisions that are not being revised in this rule (such as the core of the prohibited acts, liability, and product transfer document sections), are nonetheless repeated in the regulations issued today. It is important to note that this repetition is to make the Code of Federal Regulations more useable and to avoid confusion. The repetition of previously promulgated regulatory text is not intended to be a re-promulgation

[26] Tupa, R.C., Koehler, D.E., ''Gasoline Port Fuel Injectors—Keep Clean/Clean up With Additives,'' SAE Technical Series No. 861536.

[27] Tupa, R.C. and Dorer, C.J. ''Gasoline and Diesel Fuel Addditives for Performance/Distribution Quality—II,'' SAE Technical Series No. 861179.

of that text. The only regulatory provisions promulgated today are new provisions, and the revisions to previously promulgated provisions.

1. Certification Conformity. Effective August 1, 1997, all gasoline sold or transferred to the ultimate consumer, and effective July 1, 1997, all gasoline sold or transferred to those who sell or transfer to the ultimate consumer, must be additized with detergent that has been certified pursuant to the requirements of § 80.161. The detergent must be present in at least the lowest additive concentration (LAC) certified to EPA as effective, and in conformity with the use restrictions of the certification. Prior to July 1, 1997, detergent manufacturers may choose to certify their detergents in conformity with § 80.161. Gasoline/PRC additized with such certified detergents must be additized in compliance with the requirements of § 80.161.

Use restrictions pertain to the type of gasoline product to which the detergent may be added under a given certification. As previously described, detergents certified under the national option may be used with any gasoline (e.g., oxygenated or non-oxygenated, premium or regular) sold anywhere in the U.S. (subject to approved state programs). Detergents may also be certified at a different LAC for use with gasoline sold to the ultimate consumer in a particular PADD. Detergents certified under the fuel-specific option may only be used with the segregated gasoline specified in the certification. Furthermore, within a national, PADD-specific, or fuel-specific certification, a detergent may be separately certified at a different LAC for use only with non-oxygenated fuel, for leaded fuel (for nonroad use only), for fuel blended with a specific oxygenate, and/or for premium fuel. Finally, detergent certifications based on certification by the California Air Resources Board (CARB-based detergents), may only be used with gasoline additized and/or ultimately sold in California.

Under the certification program, detergent in its pure state, i.e., prior to its addition to gasoline, must meet the chemical composition and concentration specifications set forth in its 40 CFR part 79 registration (as is also the case under the interim program rule), and in its Federal certification.

2. Compliance With Volumetric Additive Reconciliation (VAR) Requirements. All parties who blend detergent into non-exempted gasoline, or into components added to gasoline after the refining process (post-refinery components, or PRC), must complete mandatory accounting reconciliations establishing that the product was additized at an actual detergent concentration that was at least equal to the LAC certified as effective to prevent deposit formation. All additized gasoline and PRC must be accounted for on VAR records.

Automated detergent blenders must complete these mandatory reconciliations in consecutive compliance periods, each no greater than 31 days in length. The reconciliation for automated blenders is based on averaging the additization concentrations over the compliance period. Today's final rule, like the interim program, does not require that a per-gallon minimum detergent concentration be attained by blenders within the averaging period. Hand-blending detergent blenders must complete the mandatory VAR on a per-batch basis.

VAR reconciliation records (VAR formula records) and VAR supporting documentation must be maintained by detergent blenders for a five year period from date of creation.

3. Equipment Calibration. To assure measurement accuracy, under this final rule, automated additization equipment must be calibrated on a semiannual basis, and every time the detergent in the storage tank is changed to one with a different viscosity.

4. Product Transfer Documents. (PTDs). All regulated parties transferring gasoline, detergent, or additized PRCs (except retailers and WPCs transferring gasoline to the ultimate consumer) must also transfer product transfer documents (PTDs) providing necessary information about additization status, identity of the product, and identity of the transferring parties. All regulated parties receiving such product, including retailers and WPCs, must likewise obtain these documents. Most regulated parties will be required to maintain these documents for five years. However, WPCs receiving such documentation for additized gasoline will not have any record maintenance requirement as to the received documents.

5. Liability and Defenses. As is typical in EPA fuels programs, presumptive liability will be the cornerstone of compliance assurance under the certification program. All parties in the relevant gasoline, detergent, and detergent-additized PRC distribution chain for a nonconforming product will be presumed liable for detergent program violations arising from that nonconformity, specifically, violations involving the sale, transfer, etc. of nonconforming detergent, nonconforming gasoline, and nonconforming additized PRC, as applicable. Two exceptions to this general rule exist, however. First, carriers are only presumptively liable for violations discovered at their own facilities. For downstream violations, carriers will be deemed liable only when EPA can prove that they caused the violations. Second, for VAR violations, expected to be the primary source of violations under the detergent program, only those parties meeting the definition of detergent blender for the nonconforming product will be presumptively liable.

In addition, any regulated parties that EPA can establish caused VAR violations will be deemed liable for these violations, and branded refiners will be vicariously liable for any violations, other than violations of the PTD provisions, found at facilities operating under the refiner's brand name. Presumptive liability for PTD violations is imposed under the certification program only on those parties owning, leasing, operating, controlling, or supervising facilities at which such violations are found.

All parties subject to presumptive and vicarious liability have the right to assert an affirmative defense to that liability.

6. Exemptions. As provided in the interim program, racing and aviation fuel, and detergent and gasoline used for research, development, and testing purposes, are exempt from the requirements of the detergent certification rule, provided certain safeguards are met to ensure the proper use of these exempted fuels. In addition, provided certain conditions are satisfied, gasoline additized in the state of California is exempt from the VAR requirements of today's certification rule, and gasoline sold within California is exempt from the rule's PTD requirements.

B. Enforcement Aspects of the Certification Program, Including Clarifications of, and Changes to, the Interim Program

While the enforcement provisions of the certification program closely track and continue those found in the current interim program, there are certain important aspects in which EPA is revising its enforcement provisions, for both the interim and certification program. The following description of the enforcement program includes modifications of the interim program. These changes primarily result from industry queries about the practical implication of certain provisions of the interim program rule. The Agency provided implementation guidance on some aspects of the interim rule in

response to these queries, through the issuance of four Detergent Rule Question and Answer Documents (Q&A Documents or Q&As). In addition, some of the statements found in the Q&A Documents were issued by EPA to address the Agency's implementation concerns that became apparent to EPA upon initiating its enforcement program. All four Q&A Documents are available in the docket (items IV–C–08 through IV–C–11). Also available in the docket is a summary of significant industry implementation questions that have not been incorporated in a Q&A document (item VI–D–57).

Since these Q&A Documents do not have the same legal force as a regulation, the Agency is incorporating these provisions in today's rule. All of these modifications adopted into today's rule are within the scope of the proposals found in the NPRM, and are logical outgrowths of the proposal, typically based on comments in the form of industry queries. The changes and clarifications mitigate industry burdens in comparison to the regulatory language found in the current interim program, while at the same time, maintain the effectiveness of the Agency's detergent additive enforcement program.

Other changes from the interim program are also discussed below. These changes were developed from ideas presented in the NPRM, or are based on proposals raised in the Reopening Notice. The discussion of these enforcement provisions includes EPA's response to comments received about the proposals.

1. VAR Requirements. Mandatory VAR procedures are the foundation of today's certification program, as they have been under the interim program. All detergent blenders are required to record their actual detergent concentration attained for a specified compliance period and compare it with the detergent's applicable certified LAC. If the actual detergent concentration for the compliance period is equal to or greater than the LAC, then the blender's detergent concentration rate is in compliance with the VAR requirements. To help prevent misadditization, automated detergent blenders are prohibited from setting their additization equipment at rates below the LAC rate. Hand blenders are required to calculate VAR compliance for every load of gasoline or PRC additized, for each detergent used in the load, and each certified LAC rate used.

a. Automated Detergent Blender Compliance Periods. The interim program final rule specified that VAR compliance periods for automated blenders may continue no more than a calendar month, and may not extend beyond the end of the calendar month in which they are started. The monthly time period was established because it was considered a reasonable compromise between industry's desire to average additization compliance over an extended period, and the Agency's need to ensure an effective additization level in the actual gasoline dispensed to consumers. The original proposal in the NPRM was for a weekly VAR compliance period. After reviewing industry comments to the NPRM universally requesting VAR periods longer than a week's duration, the Agency re-evaluated the matter and established the monthly period in the final interim rule.

It was subsequently brought to the Agency's attention that tying VAR compliance periods to calendar months was causing operational problems for some detergent blenders. Blenders claimed that varied operational procedures and needs made such rigid terminations difficult. In the Q&A Documents, therefore, EPA relaxed this requirement and permitted blenders to terminate their monthly VAR compliance periods on the last working day of the month, or on the first working day of the next month, etc. (See Q&A Document #2, Q.13, p.8; and Q&A Document #4, Q.3, p.4.)

One blender suggested a manner of resolving these operational concerns in a much simpler manner, by structuring the automated blender monthly compliance periods so that they could last no longer than 31 days, without being restricted to a calendar month. Thus, the problems involving calendar month terminations would be alleviated. (See Docket item IV–E–44.)

The Agency agrees that this is a reasonable method of ensuring that automated VAR compliance periods are no greater than a month, without forcing regulated parties to conform their operational practices to rigid calendar month time frames. Therefore, today's final rule adopts this flexible approach for both the interim and certification programs, specifying that the automated VAR compliance period must be less than or equal to 31 days, at the blender's option.

The interim program rule requires that the VAR record identify the dates of the compliance period, as was proposed in the NPRM. The Agency has also interpreted this requirement in the Q&A Documents. (See Q&A Document #2, Q.13, p.8 & 9; and Q&A Document #4, Q.3, p.4 & 5.) Under this interpretation, if the VAR formula record for a particular compliance period includes all the additizations occurring within a certain calendar month, then the VAR formula record need only identify the month. However, if the compliance period does not include the entire calendar month, then the blender must indicate on its VAR records the exact dates and times of the period's beginning and end. The point of recording such information is to ensure that the VAR time periods are inclusive of all additizations. Today's final rule includes these requirements and interpretations for both the interim and certification programs.

As in the interim program, the certification program requires termination of the VAR period when an automated blender's additization equipment concentration rate is increased more than 10 percent over the original rate. A new reconciliation period must be commenced at that point. The 10 percent limit was intended to provide industry with some flexibility in adjusting additization equipment while preventing large increases in additization rates as compensation for significant under-additizations. It was not intended to prohibit the use of a temporary rate change to correct a misadditized batch of gasoline, or to fix a temporary equipment problem. In Q&A Document #4 (q.5, p.6), EPA clarified its intent in promulgating this provision and stated that it would allow temporary rate changes beyond the 10 percent cutoff, provided that the purpose is to correct a temporary problem involving a batch misadditization and that documentation about the temporary correction is maintained.

Today's rule contains the rate change flexibility as introduced in the Q&A Documents. It also permits rate changes solely intended to correct an equipment malfunction, provided that any detergent used in this corrective procedure and not blended with gasoline is subtracted from the detergent volume totals. Similarly, today's rule provides that automated blenders may set their equipment's concentration rate lower than the LAC, provided such alteration is a documented temporary procedure performed solely to correct a batch misadditization. In the NPRM, EPA proposed that automated blenders could never set their equipment lower than the LAC, and the interim rule incorporated this proposal. However, based on experiences of blenders under the interim rule, and in the interest of encouraging correction of batch misadditizations within a VAR compliance period, EPA is including this exception to the LAC rate minimum in today's final rule.

b. VAR Formula Records per Detergent Storage System. As proposed in the NPRM, the interim program requires automated blenders to create a separate VAR formula record for each detergent storage tank. However, some blenders expressed concern to the Agency about the rigidity of this requirement, since their detergent additization systems were fed by more than one tank or container, and it would thus be difficult to create separate VAR records for the different tanks. (See Q&A Document #1, Q.9, p.6.) To address this concern and provide the necessary operational flexibility for such blenders, the Agency stated that it would allow VAR records to be based on detergent tank storage systems. (Q&A Document #1, supra.) Today's final rule formalizes this more flexible approach.

c. Brands and Grades of Gasoline on VAR Records. As proposed in the NPRM, the interim rule requires brands and grades of the gasoline product covered by a VAR formula record to be listed on that record to ensure identification of the product covered. Detergent blenders expressed concern about this requirement because brands of product were not always known and because product identification was available on supporting records and was thus not necessary on each formula record. (See Q&A Document #1, Q.17, p.7; and Docket item IV–E–44.)

These concerns prompted an Agency Q&A Document response, specifying that gasoline brands had to be identified only when known to the blender. Today's final rule adopts this Q&A provision, and provides further flexibility by permitting product identification as to brand and grade to be recorded on supporting documentation. As to gasoline identification on the VAR formula record itself, detergent blenders only have to identify, when relevant, that the product is additized under a customer-controlled proprietary system. This latter requirement is necessary to alert Agency auditors that a party in addition to the terminal operator might be liable for VAR violations for this product.

The additional flexibility in these provisions will facilitate VAR recordkeeping tasks without interfering with the Agency's need for proper identification of additized product.

d. Recording of Detergent LAC and the Actual Concentration. As proposed in the NPRM, the interim rule required that the LAC must appear on the VAR formula record and in detergent manufacturer blending instructions in units of gallons of detergent per gallons of gasoline. However, in implementing the detergent registration provisions, the Agency realized that such a figure would typically contain three zeros after the decimal point because the amount of detergent being used per gallon of gasoline is so small. The constant use of such a figure would be unwieldy and difficult to work with. Therefore, EPA advised blenders that the LAC would be permitted to be stated in terms of gallons of detergent per one thousand gallons of gasoline (Docket item IV–C–12). This more workable LAC identification system is contained in today's final rule. Further, today's rule requires the LAC to be reported in relation to the volume of PRC in which the detergent is blended, as well as gasoline volume, since the effective detergent concentration depends on the total volume of additized product.

Neither the NPRM nor the interim rule specified the number of figures to which the blender must express actual detergent concentration. Pursuant to a request for clarification of the Agency's intent on this issue (see Q&A Document #1, Q.22, p.9), today's final rule clarifies that the actual concentration must be expressed to four figures. This specification is appropriate, given the large volumes typically encountered.

Today's final rule also specifies that the LAC identified on the VAR records and in the manufacturers' blending instructions to their customers must also be expressed to four figures. Neither the NPRM nor the interim rule specifically addressed this point. Both concentrations now have to be recorded to the same arithmetic rounding standard. This will facilitate comparison of the LAC with the blender's actual detergent concentration, and it also ensures that this information is standardized on all VAR formula records.

e. VAR Recording of Use-Restricted LACs. Under the interim program, a detergent can be registered with multiple LACs for use of the detergent in different types of gasoline. For example, a detergent can have one LAC for generic product, and another, lower LAC for leaded gasoline. The generic/leaded distinction retains limited relevance under today's final rule, because the sale or dispensing of leaded gasoline for use in nonroad vehicles continues to be permitted even though the sale or dispensing of such product for use in highway vehicles was banned as of January 1, 1996.

As previously mentioned in this preamble, there are additional certification rule situations under which a detergent may be certified with multiple LACs. As proposed in the NPRM and codified in the interim program, under the certification program a VAR formula record may account for the use of only one such certified LAC. Additization based on a different certified LAC must be recorded on a different record. In addition, the VAR formula record for a detergent's use-restricted LAC must state the respective use restriction(s) for the LAC on the VAR record. This requirement will highlight for the regulated party, and for the Agency, the specific use for which the detergent is certified, and will help ensure that gasoline is additized at a proper rate.

f. Diluted Detergent. Under the interim rule, any change in detergent package composition which changes the LAC requires a new registration. Thus, a detergent blender could not dilute a detergent with the marketer's own gasoline in order to make the detergent less viscous for ease in use in the colder winter months.

Pursuant to a request to permit such detergent dilution, EPA has allowed such a practice, since it does not make the detergent less efficient in preventing deposit formation, and it facilitates winter use of the detergent (Q&A Document #4, Q.1, p.1.). Safeguards are established under the Q&A to ensure that the use of this procedure does not result in less effective additization. Blenders using this procedure are required to use the diluted detergent at an LAC rate that compensates for the dilution, and they are required to inform EPA of this usage in writing, prior to the dilution. Today's final rule codifies this provision allowing lenders to dilute their detergent for winter handling, thus modifying the strict prohibition against detergent package LAC variation originally proposed in the NPRM.

g. VAR Recording of Gasoline Which is Overadditized for the Anticipated Addition of Ethanol or Other PRC. Under the interim program, excess detergent can initially be added to gasoline to account for the anticipated later addition of unadditized ethanol or other PRC to that gasoline. The purpose of such initial overadditization of the gasoline portion is to ensure that the combined gasoline/PRC product contains the appropriate detergent concentration.

Neither the NPRM nor the interim program rule specified how this permitted practice was to be recorded on the VAR formula records. EPA clarified this matter by the issuance of Q&A Documents which stated that the Agency expects such a VAR formula record to identify the volume of gasoline being overadditized, and the anticipated volume of ethanol/PRC being accounted for. In addition, EPA expects that the volume of ethanol/PRC being accounted

for by the gasoline overadditization is to be included in the recorded final volume of product additized (Q&A Document #1, Attachment 1, p.24–25; and Q&A Document #2, Q.8, p.7). Such identification on the VAR record is necessary to highlight that the blender is over-additizing gasoline in this manner, as well as to ensure that the actual detergent concentration for the gasoline/PRC blend is sufficient to effectively control deposit formation.

Today's final rule codifies these VAR recording clarifications found in the Q&A Documents, so as to make the VAR records reflect the reality of this specialized overadditization practice. These clarifications should enable the regulated community and EPA to verify that this procedure, which was also permitted under the interim rule, is implemented in an accurate, effective manner.

Today's final rule also extends these PRC-related overadditization VAR procedures to the hand blender VAR requirements, for the same reasons they are necessary for automated blenders. This corrects the Agency's oversight to include them in the interim program's provisions for hand blenders.

h. VAR Recording of Transfers of Unadditized Gasoline. Under the interim program, automated detergent blending facilities and terminals at which hand blending occurs are required to create and maintain VAR supporting documentation for each transfer of unadditized gasoline from the facility in the compliance period (for automated blenders), or monthly (for the hand blending terminals). A record that unadditized product has left the detergent blending terminal is needed by the Agency so that the product can be traced, if necessary, to ensure that it was ultimately properly additized prior to use by the consumer.

Because terminals already are required under the interim program to maintain product transfer documents for each such transfer, the Agency stated in Q&A Document #1 (Attachment #1.) that detergent blenders could indicate on VAR records the total amount of such transfers occurring either in the VAR compliance period (for the automated blenders), or during the month (for hand blenders), without indicating the date, volume, or recipient of each transfer. These total volumes are to be recorded on the automated blender VAR formula record or the hand blender monthly record of unadditized transfers. This simplified approach is codified in today's rule. It streamlines the more exhaustive recording provision found in the interim rule, while providing useful notification to the Agency on VAR records of the transfer of unadditized product from detergent blending terminals.

In requiring detergent blenders to identify on their VAR records transfers of unadditized gasoline leaving their facilities, neither the NPRM nor the interim rule considered that this would require refineries which also happen to be detergent blending terminals to record routine bulk transfers of unadditized product to other detergent blending facilities. Such bulk transfers were not the target of this record requirement because they are not intended for immediate consumer use.

Consequently, pursuant to industry inquiry about this matter, the Agency stated in Q&A Document #4 (Q.4, p.5.) that it would excuse such refinery bulk transfers from inclusion in the VAR recording requirement for transfers of unadditized product. Today's final rule codifies this exception and extends it to pipelines which also happen to be detergent blenders and which also regularly make bulk upstream transfers of unadditized gasoline. The proposal as originally described in the NPRM has thus been modified to take into account the reality of upstream bulk transfers of unadditized gasoline which do not warrant the special VAR attention necessary for downstream transfers of such product.

i. Supporting Documentation of VAR Volumes for Hand Blending Facilities. As proposed in the NPRM, the interim rule required hand blending detergent facilities to retain VAR supporting documentation, specifically, PTDs and bills of lading for all product they receive or send out. However, the interim rule did not require hand detergent blenders to maintain documentation supporting their recorded VAR volumes for gasoline, PRC, and detergent.

Since such documents would obviously be important if the reported volumes were ever subject to question, EPA has issued guidance that such data, if available to the hand blender, should be maintained (Attachment 1 of Q&A Document #1, p.28.). Today's final rule codifies this requirement for hand blenders.

j. Electronic VAR Formula and Supporting Records. Neither the NPRM nor the interim program final rule addressed the use of electronic records to satisfy VAR formula or supporting record requirements. Pursuant to industry request for approval of electronic records (Docket VI–D–57.), in Q&A Document #1 (Q.4, p.11) the Agency clarified that the use of electronic VAR and PTDs complies with the rule, provided that these records are complete, easily readable, and accessible.

In written discussions with petroleum industry groups, EPA discussed permitting the use of computer identification codes in lieu of VAR formula signatures, provided that safeguards of authenticity would be met (Docket item IV–C–13). Blenders using such ID codes would be required to maintain a document signed by the VAR record's creator, acknowledging that the use of this identification code on the record is equivalent to his/her signature, and must take record security and access precautions.

Some regulated parties objected to the idea of the Agency placing conditions on the use of electronic records, asserting that these records are as reliable as paper records which are not subject to any additional conditions (Docket items VI–D–59 and VI–D–60).

The Agency disagrees with such comments, and believes that its enforcement needs justify the establishment of conditions on its approval of the use of electronic records. If electronic records are to be used by industry to satisfy detergent rule requirements, EPA needs to be assured that these electronically generated documents will be easy to read and easily accessible. If they are encoded or stored in a manner that makes them unusable by the Agency, the effectiveness of the detergent enforcement program would be compromised. Therefore, the Agency is choosing to establish readability and accessibility requirements for electronic records.

Further, since electronically generated documents can be easily altered without evidence of such alteration being visible, and because compliance with the detergent program is determined primarily through review of the VAR formula records, the Agency needs to ensure that electronic VAR formula records are stored with access and audit security. Consequently, the use of electronically created VAR formula records requires the existence of access and audit security precautions, including documentation verifying the true identity of parties identified on these documents only through the use of computer ID codes.

The final rule promulgated today includes a specific provision approving the use of electronic VAR records. It thus expands the range of permissible documents that will be acceptable to satisfy VAR requirements, while maintaining safeguards necessary for EPA's enforcement needs.

k. Detergent Tank Transitioning. The interim rule prohibited the commingling

of different detergents through provisions prohibiting the supply, storage, etc. of an unregistered detergent (which commingled different detergents would be), and the additization of gasoline with an unregistered detergent. During implementation of the interim program, the Agency was asked whether a detergent blender could transition from the use of one detergent to another by adding a new detergent into a tank that contains the residue of an old, different detergent, even though some commingling would result (See Q&A Document #1, and Docket item VI–D–57).

Such detergent tank transitioning process is a common industry practice and prohibiting it would greatly inconvenience many blenders. Therefore, EPA believes it is reasonable to permit this practice in spite of the limited commingling involved. At the same time, the Agency needs to ensure that protective procedures will be followed which limit the amount, or effect, of the commingling. EPA is concerned that the combined detergent may be used at a LAC that would not adequately additize the gasoline. Further, commingling of detergent would make it difficult or impossible to confirm the identity of the detergent by testing, if this should be necessary for enforcement purposes.

If a blender desires to use the same detergent, but at a different LAC certified for use restricted to a different product, this would not constitute an actual tank transitioning process. In this instance, the detergent in the storage tank remains the same and no commingling occurs. Therefore, in such a situation, the only requirement that today's rule imposes is that the blender must create separate VAR formula records for each certified LAC use, identifying the separate use restrictions, and must use measurement equipment able to accurately measure the detergent recorded for each record.

For the case of a tank transitioning situation, *i.e.*, where different detergents are being commingled, EPA issued a response in Q&A Document #1 (Q.5, p.4) which provided limited approval for such commingling. Associated procedures ensure proper VAR identification and usage the proper LAC for the combined detergent. They also encourage the maximum depletion of the prior detergent in the tank so as to limit the commingling involved.

Today's final rule follows this Q&A approach by permitting detergent commingling during legitimate tank transitioning periods, while requiring necessary procedural and recordkeeping safeguards to ensure proper VAR identification of the detergents and proper additization with the commingled detergent. It thus relaxes the total prohibition against detergent commingling proposed in the NPRM, to provide industry with the flexibility it needs to execute this standard tank transitioning procedure.

In addition, today's rule codifies the detergent transitioning policy, first outlined in Q&A Document #1, supra, under which the addition of new detergent into a detergent storage tank is specifically permitted and the combined detergent is treated as if only the new detergent were in the tank, provided that the tank is drained of the old detergent to a remaining level no greater than 10 percent of the tank's newly delivered, commingled volume. This volume includes the tank's remaining inventory of the residue detergent, plus the newly delivered detergent.

This 10 percent cutoff figure creates an incentive to detergent blenders to reduce the amount of actual commingling involved in their detergent transitioning. The Agency has chosen this figure because EPA judges this small amount of residual detergent to be inconsequential enough to minimize concern about the use of an inappropriate LAC for the combined mixture. At the same time, it is large enough to accommodate blender need for flexibility in tank drainage procedures. Furthermore, the drained detergent can be re-delivered into storage tanks containing the new detergent, provided that the re-delivered detergent comprises no greater than 10 percent of the tank's total commingled delivered volume. The Agency believes it is appropriate to allow this particular commingling procedure because it eliminates the need for blenders to dispose of the previous detergent.

If both detergents have the same LAC, today's final rule permits blenders to drain their detergent tanks (and/or redeliver old detergent) so that the old detergent makes up no greater than 20 percent of the total newly delivered volume without following additional procedures. In such situations, there is no risk of blender confusion as to what LAC applies, so greater flexibility is warranted than for those situations in which the detergent LACs are different.

Finally, today's rule establishes provisions that will apply when two detergents being commingled in tank transitioning situations have different certification use restrictions. Neither the NPRM nor the interim program specifically addressed this matter, and no comments on this topic were received by EPA. When two separately certified detergents are being commingled, the rule establishes that the original detergent's use restrictions no longer apply, while the use restrictions for the new detergent must be followed. The Agency believes that this procedure is appropriate, practical, and easy to follow, provided the transitioning steps discussed above are followed. Under these steps, a blender commingling 10 percent or less of the original detergent would essentially disregard the carry-over of the original detergent, and follow the LAC and use restrictions of the newly added detergent.

In situations where a blender commingles in the detergent tank a residue of more than 10 percent of the original detergent which has a different LAC than the new detergent, the blender is required by the transitioning procedures to use the higher LAC of the two detergents until an amount of detergent is used up which is equal to that of the original detergent remaining in the tank at the time of the new detergent's delivery. The use of the higher LAC should ensure that the commingled detergent will be effective in the fuel for which either detergent was certified. Therefore, the blender is allowed to use that higher LAC with the new detergent's use restrictions, and to disregard the original detergent's use restrictions.

Each of the permitted tank transitioning procedures described above must be documented, either on the VAR record or in supporting documentation. Documentation of the detergent commingling will be useful to EPA if enforcement testing of the detergent is contemplated by the Agency.

l. Automated Additization Equipment Calibration. The interim rule required automated detergent blenders to calibrate their additization equipment each time they change their detergent package and at the beginning of each calendar quarter. The purpose of this regulatory requirement was to ensure the accuracy of the volume numbers recorded on the VAR forms by confirming the measuring accuracy of the equipment generating those numbers. Today's certification rule somewhat eases these calibration requirements in response to comments from detergent blenders that these requirements were unnecessarily severe.

Industry's initial implementation concern was that it would be impossible to fulfill the requirement that every blender's quarterly calibration had to be performed in the first month of each quarter (See Docket item IV–E–45). To reduce this burden, the Agency issued a Q&A Document stating that blenders

could perform the required quarterly calibration in any month within a calendar quarter, provided that the quarterly calibrations occurred no later than three months from the previous calibration (Q&A Document #1, Q.12, p.6.).

As a further concern about quarterly calibration, API and NPRA commented, in response to Agency inquiry, that the quarterly requirement was, itself, too severe. API suggested that an annual calibration requirement would be more appropriate, while NPRA asserted that calibration information should only be asserted as an affirmative defense element. (Docket items IV–C–14, VI–D–58, VI–D–61, VI–D–62, VI–D–63, and VI–D–64.) API further asserted that parties performing additive reconciliations on a daily or weekly basis, *i.e.,* more frequently than the required monthly reconciliations, would be assuring the accuracy of their monthly VAR volumes as effectively as those parties performing quarterly calibrations. Therefore, for such parties, API believed an annual calibration requirement would be sufficient.

However, EPA received conflicting information from a representative of an additization equipment company (Docket items IV–E–46 and VI–D–65). This party asserted that merely performing reconciliations at a greater frequency, while not addressing the real issue of the equipment's measurement accuracy, would not result in improved accuracy of the VAR records. According to this commenter, if the amount of detergent being injected per recorded pulse happens to change while the equipment continues recording the same pulses as before, the mere fact that a blender increases the frequency of reviewing the recorded pulses will not ensure that the blender discovers the measurement accuracy problem. This commenter suggested that the only way to address this concern is to actually recalibrate the equipment.

The Agency agrees that merely increasing the frequency of VAR reconciliations does not necessarily ensure measurement accuracy, and that periodic additization equipment calibrations are thus essential. Under similar reasoning, the Agency rejects the suggestion that periodic calibrations should merely be asserted as part of an affirmative defense. If a blender does not calibrate its equipment regularly, the fact that its additizations are inaccurate may never be known.

However, it is also apparent that quarterly calibrations are burdensome to some facilities, without necessarily providing commensurate benefits. Therefore, today's final rule requires that automated detergent blenders perform at least two equipment calibrations per year. To ensure that the calibrations will be reasonably spaced throughout the year, the rule also specifies that these procedures are to be conducted within each calendar half year, but at least one hundred and twenty days apart. This modified approach will reduce the equipment calibration burden to industry, while also satisfying the Agency's need for regular verification of VAR volume accuracy.

As additional input on the calibration issue, API commented that it was not technically necessary or useful to recalibrate additization equipment every time a detergent package was changed. API stated that merely changing a detergent package, in itself, would not affect equipment measurement accuracy. On this point, the equipment manufacturer commenter indicated that if detergent viscosity changes due to a detergent package change, the amount of detergent being injected per recorded pulse would change. A new calibration of the recording equipment would thus be necessary to ensure that the recorded measurements were still accurate.

The Agency agrees that re-calibration is necessary only when the viscosity of the new package is different from that of the previous package. Thus, today's final rule requires that equipment recalibration must be performed each time the detergent package is changed, unless written documentation indicates that the new detergent package has the same viscosity as the previous detergent package. To provide additional flexibility, today's rule permits a calibration performed to fulfill the package change requirement to serve also as compliance with the semi-annual calibration requirement, provided that the package change calibration satisfies the associated spacing requirements. The Agency believes that these modifications to the proposed calibration requirements will assure VAR measurement accuracy while minimizing industry quality control burdens.

m. Detergent Blender Record Retention. The interim program rule requires detergent blenders to provide EPA with all VAR formula and supporting records upon request. EPA had proposed that the records be maintained at the place of creation, but the interim rule did not include this requirement. The interim program also did not specify the manner in which these records were to be provided.

Several detergent blending terminals requested clarification of EPA's expectations under the interim program concerning document provision at the time of inspection. (See Q&A Document #1, Q.24 and 25, p. 9 and 10 respectively; and Docket item VI–D–57.) The Agency responded that terminals were not expected to store all the required documentation on site (Q&A Document #1, supra.). The Agency also stated that detergent blenders were expected to provide EPA inspectors with six months of VAR formula and supporting records (including PTDs) within one hour of request, with the remaining requested documents to be provided by the next business day. The Agency believed that this time frame for record review would provide EPA with the ability to quickly review a moderate amount of records, but would not burden respondents with the need to provide immediately the full five years of documents which they are required to maintain.

However, EPA's experience in implementing the interim program has revealed that the Agency needs immediate access to VAR formula records for a time span greater than six months. Detergent program violations are not typically discovered through pre-arranged, exhaustive record audits like those conducted under the RFG baseline audit program. Instead, detergent program violations are primarily discovered through on-site inspection review of VAR formula records. These inspections typically occur during unannounced and expedited terminal inspections to determine compliance with a variety of EPA fuels programs. Such inspections are usually completed in several hours and typically do not extend beyond the day of the initial inspection contact.

Therefore, EPA needs the immediate availability at inspection sites of a long enough period of VAR formula records to give a clear picture of a facility's compliance performance. EPA considers one year of VAR formula records to be the minimum time frame within which EPA can determine the facility's compliance, so that immediate access to at least that period of VAR formula records is essential for effective detergent program enforcement. Since VAR formula records are typically only one or two pages in length per reconciliation, retention of this small amount of documentation should not be unduly burdensome.

Today's final rule requires automated detergent blenders and hand blending terminals to provide the preceding year's VAR formula records within one hour of a request by EPA personnel. The remainder must be supplied by the start of the next business day, or later if approved by EPA. In the case of VAR

supporting records, only the preceding two month's records need be immediately available.

For non-terminal hand blenders, only the prior two months VAR formula and supporting records must be made available within one hour of EPA's request. Since these blenders are required to create VAR formula records for each batch of fuel they blend, they typically create many more VAR formula records per month than automatic blenders, and thus more records will be available for EPA review. Further, since such blenders are typically small businesses with little storage space, EPA believes it would not be appropriate to impose on them the same record provision burdens as on the larger, terminal blenders.

Today's certification rule (at §§ 80.157(g) and 80.170(g)) also clarifies that ''immediate provision'' of the required records means that the records should be provided within an hour of request, or later with EPA approval. Such flexibility permits records to be stored on site, or to be transmitted, electronically or by other means, from any other location of the party's choice. Furthermore, if any blender can establish by documentation that its VAR supporting records are either centrally maintained at another location, or maintained at an alternative location by a terminal customer operating its own proprietary detergent system, then that blender does not have to provide VAR supporting records until the start of the following business day, instead of within an hour.

2. Affirmative Defense and Liability Issues. The affirmative defense and liability provisions of the certification program are a continuation of, and are substantially the same as, those promulgated by the interim rule. Immediately following is an analysis of the certification program's affirmative defense provisions. Significant differences from the interim program are discussed thereafter.

The certification program gives all parties which are subject to presumptive and vicarious liability the right to assert an affirmative defense to that liability. In general, such parties must establish that they did not cause the violation. In addition, they must provide applicable PTD(s) meeting the requirements of § 80.171 for the product in violation, documenting that the product satisfied all requirements of this program when it left their control.

Specific parties have additional requirements to establish an affirmative defense:

Branded refiners are subject to vicarious liability for product nonconformity violations involving gasoline, detergent, and detergent-additized PRC, as well as for VAR violations, that occur at branded facilities, *i.e.,* facilities which operate under the corporate, trade, or brand name of the refiner or any of its marketing subsidiaries. In addition to establishing the lack of causation and the PTD elements of a presumptive liability affirmative defense, branded refiners are also required to establish either of two additional elements to avoid vicarious liability for a violation. They must either establish that the violation was caused by sabotage or in violation of law, or that the violation occurred despite the existence of a contractual obligation designed to prevent it, where such obligation was monitored by an appropriate oversight program including periodic review of PTDs to ensure contractual compliance. These requirements are the same as those that currently apply under the interim program.

Detergent blenders, as the parties with the most control over proper additization, have to demonstrate additional affirmative defense elements to avoid presumptive liability for detergent rule violations. In addition to lack of causation and PTD compliance, detergent blenders must have a quality assurance program to ensure proper additization of the product they additize. The quality assurance program must include periodic review of their PTD and volume measurement records to ensure the accuracy of the blender's PTD and VAR records. Further, a detergent blender asserting an affirmative defense must establish the receipt (or provision, as appropriate) of accurate written blending instructions prior to the blending of the detergent into the nonconforming gasoline or PRC. These affirmative defense elements are essentially the same as, and are a continuation of, those found under the interim program.

Detergent manufacturers are subject to presumptive liability for non-VAR related detergent, gasoline, and detergent-additized PRC nonconformity violations. As the parties controlling the production of the detergent, the detergent manufacturers must make specific showings to establish an affirmative defense to such liability. (See the following subsection for an analysis of changes to detergent manufacturer affirmative defense requirements under today's rule.) Detergent manufacturers are also subject to liability for any detergent, gasoline or PRC nonconformity violations, or VAR violations, which EPA can establish they caused.

Carriers of gasoline or detergent are the last parties with different liability and affirmative defense elements under the detergent program. Since these parties do not take title to the product they transfer, carriers have less incentive (although not necessarily less ability) to cause violations. Therefore, like the interim detergent program and other EPA fuels programs, carriers are presumptively liable under the certification program only for the detergent program violations found at their facilities. They are, however, also subject to liability for non-PTD detergent program violations discovered downstream from them, provided that EPA can establish they caused the violations.

a. Detergent Manufacturer Affirmative Defense Modification. In the NPRM, EPA proposed that, in order to successfully establish an affirmative defense to presumptive liability, a detergent manufacturer would have to establish the two standard defense elements (*i.e.,* lack of causation and complying PTDs), as well as the existence of test results confirming that the detergent in question conformed to compositional specifications when it left the manufacturer's control.

Detergent manufacturers commented that these proposed additional requirements were unfair, because their actual ability to cause gasoline nonconformity violations was limited. The proposed requirements were thus modified in the interim rule. Under the interim rule, to successfully assert an affirmative defense to presumptive liability for non-VAR product nonconformity violations, a detergent manufacturer was required to establish that it did not cause the violation. Instead, it had to demonstrate or furnish: (1) That it provided timely and accurate written blending instructions to its customer, (2) a detergent PTD, meeting the requirements of § 80.158, showing product compliance when the detergent left the manufacturer's control, and (3) accurate test results establishing that the product was in compliance with its registration specifications at the time the manufacturer transferred the detergent.

In subsequent discussions with EPA, CMA objected to the interim rule's affirmative defense requirement that relatively sophisticated test results be available on each batch to establish its chemical conformity to registration specifications (see Docket item IV–E–41). CMA maintained that conducting such tests on each batch of detergent was unnecessary and prohibitively expensive. Instead, for quality control purposes, detergent manufacturers

typically monitor the quality of the reagents which are input to the production process, and then test each produced batch to ascertain that it meets relevant physical property specifications. CMA contended that these same measures would be adequate to show that a questioned batch of detergent did meet its registration specifications.

In establishing the interim rule requirement for relatively rigorous analytical test results as an affirmative defense element, EPA's intent was to ensure that the detergent manufacturer would be prepared to supply scientifically defensible, objective evidence that the detergent component of a product was consistent with its registered compositional specifications when it left the manufacturer's control. However, EPA is persuaded by its discussions with the industry that alternative approaches, more consistent with the industry's normal production practices, can also be used to fulfill these objectives adequately.

EPA acknowledges that a requirement to perform an FTIR [28] routinely on every production batch, in case it might be needed in the future for affirmative defense to presumptive liability, might be overly burdensome for some manufacturers. Thus, EPA is making alternative provisions available which manufacturers may choose to follow for affirmative defense purposes. If EPA informs the detergent manufacturer of the possible existence of a violation for which the manufacturer may be presumptively liable within one year of the production of the detergent batch involved, then FTIR results are required for that batch. However, the manufacturer need not have conducted the FTIR procedure on the batch at the time of production. Instead, the manufacturer may choose to retain a sample of each detergent batch when it is produced, and to store it for at least a year in case it becomes a component of a product thought to be in violation of this rule. In that instance, the manufacturer would conduct the FTIR analysis on the retained sample of the batch involved. Whether the FTIR analysis was done at the time the batch was produced, or performed as needed on a retained sample of the batch, EPA would compare the results with the FTIR submitted at time of certification, to determine whether, in its judgement, the composition of the production detergent batch was in reasonable conformity with the certified detergent product.

If the manufacturer receives notification from EPA of possible presumptive liability concerning a detergent batch that was produced more than a year previously, the manufacturer has additional choices for the affirmative defense showing. The manufacturer still has the option to provide an FTIR on the batch (either taken a time of production or on a retained sample), as would be required if the batch had been produced less than one year ago. However, EPA understands that shelf life restrictions may become a factor for some detergents after a year or more of sample storage time. Thus, in lieu of an FTIR, the manufacturer may choose to rely on the following two affirmative defense requirements: (1) Documentation that the reagents used to synthesize the batch were the same in identity and quality as those specified in the certification, and (2) documentation that relevant physical properties of the batch fell within the range established in the detergent's certification (see section III.A.1 of this preamble).

b. Extension of Liability for VAR Violations. Under the interim program, only detergent blenders are subject to presumptive liability for VAR violations. Because detergent blenders were the only parties required to perform VAR reconciliations, it appeared logical that they should be the only parties liable for violations involving such reconciliations.

The Agency has become convinced, however, that parties other than detergent blenders can cause VAR violations, even if such other parties do not conduct the VAR reconciliations. For example, such parties can provide erroneous instructions to the detergent blender about detergent concentration rates or use restrictions. Conceivably, parties could also conspire with the detergent blender to transfer competitively low-priced unadditized or misadditized gasoline.

Therefore, in the Reopening Notice, EPA proposed extending presumptive liability for VAR violations to other regulated parties in the gasoline and detergent distribution chains. In the alternative, EPA proposed maintaining presumptive liability for VAR violations solely for detergent blenders, but extending liability to any regulated party whom EPA could show actually caused a VAR violation. This option was proposed with a new requirement that parties in the detergent distribution system would have an affirmative duty to provide accurate, written blending instructions for the detergent (59 FR 66872).

Most commenters on this issue disagreed with the Agency's proposal to extend presumptive liability for VAR violations to additional parties, asserting that EPA should be able to effectively enforce the VAR requirements with the liability scheme currently in effect under the interim program rule. These commenters also argued that detergent blenders are the only parties who could reasonably be held responsible for their own VAR violations. However, two commenters stated that parties other than detergent blenders could cause VAR violations, and should therefore also be subject to presumptive liability for such violations.

Few parties commented specifically about the alternative proposal to impose an affirmative duty on parties to provide accurate detergent blending instructions. One commenter agreed with the idea, provided that this requirement would take the place of extending presumptive liability for VAR violations to additional parties. A second commenter opposed the proposal, basing its opposition on the idea that a new affirmative duty was not necessary in the detergent program. Other commenters asserted that, in general, no new enforcement provisions were warranted at this point in the detergent program.

EPA agrees with the majority of commenters that most VAR violations will be caused by detergent blenders. Therefore, the Agency agrees that extending presumptive liability to parties other than detergent blenders would be inappropriate. However, since other regulated parties in addition to detergent blenders clearly do have some capacity to cause VAR violations, today's rule does extend liability for VAR violations to those regulated parties that EPA shows caused such violations.

Today's final rule does not impose a new affirmative duty on parties in the detergent distribution system to provide their customers accurate detergent blending instructions. It is obviously important to the effectiveness of the detergent program that detergent blenders receive accurate blending instructions. However, EPA's experience enforcing the detergent program has shown the effectiveness of the existing affirmative defense requirements concerning blending instructions, i.e., the reciprocal affirmative defense requirements of the detergent manufacturer and the detergent blender, respectively, to provide and receive accurate, written

[28] Under the interim program, the test may be an FTIR-based analysis or other procedure which can qualitatively and quantitatively identify each component of the detergent additive package (§ 80.141(f)). Under the certification program, an FTIR analysis is required (§ 80.162(d)).

blending instructions. This experience indicates that the added imposition of an affirmative obligation (in addition to the affirmative defense element) to provide such instructions is not necessary.

c. Defense Against Liability Where More Than One Party May Be Liable for VAR Violations.

As proposed in the NPRM, both the interim program and the certification program provide that multiple parties may be subject to liability for the same VAR violations. This possibility exists for several reasons: Multiple parties may fit the definition of detergent blender; several regulated parties may have caused the VAR violations; and branded refiners may be vicariously liable for another party's violations if a VAR violation occurs at a branded facility, including a detergent storage system, operating under the corporate, trade, or brand name of that branded refiner.

Many commenters suggested that liability for VAR violations should be limited by the terms of contracts that the parties themselves have created concerning additization of gasoline. These commenters stated that detergent additization is often carried out pursuant to the terms of such contracts which dictate responsibilities between the parties, and which should be respected by the Agency.

As EPA stated in the preamble to the interim program rule, the Agency is not required to base its own determination of liability for violations on the consensual agreements created by potential violators. However, the Agency may consider the division of responsibilities contractually established between the parties when deciding whom it will prosecute for violations.

It is the Agency's policy that: if such division of responsibilities is established by a written contract; if the parties not assuming responsibility have implemented reasonable contractual oversight procedures to ensure that the assuming party has fulfilled its responsibilities; if the assuming party is fiscally sound and capable of paying the penalty for failure to comply with the VAR requirements; and if the non-assuming parties have not otherwise caused the VAR violation; then, it is appropriate for the non-assuming parties to avoid liability for a VAR violation.

The Agency believes that contractual arrangements meeting these criteria provide reasonable assurance that the assuming party is responsible for the VAR requirements and has the financial ability to pay penalties if it fails to adequately meet these requirements. Therefore, EPA does not believe that compliance with the detergent program will be compromised if parties are permitted to assert reliance on such contracts as a defense to the imposition of multiple liability for VAR violations.

Consequently, today's final rule provides that parties subject to liability for VAR violations may successfully assert an affirmative defense to such liability, provided that the elements described above are satisfied. This defense cannot be used, however, to avoid imposition of liability related to a detergent blender's failure to provide VAR records upon EPA request, as required pursuant to § 80.170(g). As previously mentioned, the Agency needs to review certain limited, but essential, VAR records during inspections at detergent blending terminals. EPA cannot allow parties to avoid this enforcement necessity through a privately created contract.

d. Defense to Liability for Gasoline Nonconformity Violations Based Solely on the Addition of Misadditized Ethanol or Other PRC to Gasoline. Under the interim and certification programs, gasoline which is properly additized at a detergent blending terminal can subsequently become a nonconforming product when a party downstream of the gasoline's additization terminal blends mis- or unadditized ethanol or other PRC into the gasoline. The reason for the nonconformity is that the combined product fails to attain the proper additization concentration through the addition of the misadditized PRC.

The sale, offering for sale, etc. of nonconforming gasoline is a violation of the detergent rule for which all parties in the relevant gasoline, detergent, and PRC distribution systems are presumed liable, although each such party has the right to assert an affirmative defense to liability. In addition, branded refiners are also subject to vicarious liability if the violation involves branded products. Neither the NPRM nor the interim rule addressed the appropriateness of a special affirmative defense specifically geared to violations caused by misadditized PRC.

In commenting on the Reopening Notice, representatives of the ethanol industry stated that the interim program is causing a chilling effect on the use of ethanol. According to one industry representative, this situation is brought about, in part, because parties in the distribution chain who do not add ethanol to the product are concerned about their potential liability if mis- or unadditized ethanol is subsequently added to the gasoline. This commenter asserted that such parties were avoiding or prohibiting the use of ethanol with their product because of their apprehension of potential liability.

As a response to this comment, today's final rule provides that the party not adding the ethanol or other PRC can avoid the imposition of liability (whether presumptive or vicarious) in this situation merely by establishing that it did not cause the violation, and that it has PTDs establishing that the product was in conformity with program specifications when it left the party's control. This provision relaxes the presumptive and vicarious liability affirmative defense requirements established for other violations in the interim program and proposed in the NPRM, and thus makes it easier for the party not adding the ethanol to avoid liability for nonconforming product. The Agency believes this is appropriate because such parties have little control over this type of violation, and because the environmental harm of the violation tends to be mitigated by the industry practice of slightly over-additizing gasoline to ensure that actual additization is above the required LAC.

e. Liability for the Sale of Nonconforming Gasoline or PRC When the Gasoline or PRC Also Violates VAR Requirements. This section articulates Agency policy about enforcement of detergent rule provisions when the same gasoline violates both the VAR standard requirement and the prohibition against the sale of nonconforming product. When gasoline or PRC is misadditized because it failed to attain the VAR standard, a VAR violation has occurred. Only the detergent blender and/or those whom EPA can establish caused the violation are responsible for that VAR violation. However, any party, including the detergent blender, who sells, transfers, etc. the nonconforming gasoline or PRC is also subject to liability for a different violation, *i.e.*, the sale, etc. of nonconforming gasoline or PRC. Any party subject to liability for any of these violations has the right to assert an affirmative defense to such liability.

In the preamble to the interim program final rule (59 FR 54700), the Agency made clear that it intended to treat fairly those parties who unknowingly sell such non-complying gasoline. EPA is reiterating that position. Specifically, when a VAR standard violation is found, the Agency does not intend, as a general practice, to take enforcement action against the detergent blending party for both the VAR violation and the violations stemming from the sale of the same nonconforming gasoline or PRC. However, if the circumstances of the

violation make the Agency believe that the imposition of liability for both violations is appropriate, then EPA will bring an enforcement action for both violations. Such unusual circumstances could include the party's deliberate attempt to profit from detergent program violations, or a pattern of significant and repetitive VAR standard violations.

In a similar manner, when a VAR standard violation is found, the Agency will not generally take an enforcement action against the non-blending parties for selling or transferring the nonconforming gasoline or PRC. The reason is that parties receiving the nonconforming product typically have no practical means of knowing that the product is misadditized, and, consequently, they should easily be able to establish their affirmative defense element. However, if unusual circumstances exist indicating that the non-detergent blending parties had responsibility for the nonconforming sale violations, EPA may take enforcement action against these parties for such sale violations.

f. Detergent Blender Affirmative Defense Clarification and Clarification of Presumptive Liability Arising from Detergent Blending. Under the interim program, for detergent blenders to avoid liability for VAR and product nonconformity violations, they must establish the standard detergent rule affirmative defense elements of lack of causation and PTD compliance. In addition, because of their unique status in the detergent program as the parties actually adding the detergent to the gasoline or PRC, they are also required to establish two additional affirmative defense elements. First, they must show that, prior to blending, they received (or provided) accurate, written blending instructions including the LAC and any applicable use restriction information for the detergent. Second, they must establish that they have a quality assurance (quality) program which includes periodic review of supporting transfer and measurement documents, confirming the correctness of the PTD's and VAR documents.

At an API detergent additives compliance task group meeting discussing implementation of the interim rule, and through an NPRA comment on the Reopening Notice (see Docket items #IV–E–44 & #VI–D–63), the Agency was advised of industry concern about this quality program element for an affirmative defense. The commenters were concerned that this quality program defense element might require detergent blenders to review records of downstream parties handling the gasoline, to ensure that these other parties were complying with detergent rule requirements. Since these other parties were not under the control of the detergent blenders, according to these commenters, the blenders feared that it would be difficult for them to fulfill this responsibility.

The Agency agrees that detergent blenders should not be required to review the records or other actions of parties over whom the blenders have no control. The Agency's primary intent in establishing this affirmative defense element was to ensure that detergent blenders properly control and assure the quality of their own additization process, not the operations of others over whom they have no control. Therefore, EPA is clarifying that the detergent blender quality program element applies to the blender's review of its own records and the supporting documents it possesses to confirm the correctness of its own additization activities.

Blenders wishing to assert an affirmative defense should be aware, however, that they may find it difficult to successfully establish their lack of causation if they knew of a customer's misadditization of their product, and they failed to prevent the continuance of that practice. In such situations, the blender can control future misadditizations by refusing to sell to the violating party. The Agency believes that, in this unusual situation, the blender does have some control over such a violation, and that blenders can, and should, be held accountable for reasonable steps to prevent it in order to establish an affirmative defense.

Today's rule also clarifies another point about detergent blending liability. As proposed in the NPRM and as codified in the interim rule, regulated parties are presumptively in violation if they own, control, etc. the facility where a gasoline or PRC nonconformity violation is found. In addition, applicable parties are presumptively in violation if they do actions (whether upstream or downstream of the place where the violation is found), such as selling or transferring the product or components of the product in violation, which could cause the nonconformity or other violation and which make it reasonable for such parties to be presumptively in violation.

For this latter liability, as was proposed in the NPRM, the interim rule specifies the acts giving rise to this presumptive liability, including such activities as manufacturing, refining, selling, dispensing, and transporting the products in question. While the interim rule does not specifically mention the act of detergent blending as one which would give rise to this liability, the act of detergent blending is typically associated with the other activities (such as selling, dispensing, or transferring the relevant product), which are specified in the rule. The act of detergent blending clearly could give rise to gasoline or PRC nonconformity violations. Therefore, today's certification rule clarifies that detergent blending is an activity that will trigger presumptive liability under both the interim and the certification programs. This clarification is within the scope of the NPRM proposal since it merely specifies another action that is related to the other—similar actions—which precipitate such liability.

g. Liability Clarification. The Agency received a comment from CMA requesting clarification as to what specific violations detergent manufacturers would be deemed liable for, and how the continuing days of penalties would relate to those violations. CMA stated that the regulations were unclear, because the section of the rule which designates the prohibited acts appeared to make manufacturers liable for a single event, such as the sale of non-conforming detergent, while the penalty provision appeared to impose liability for all the days that such non-conforming detergent remained anywhere in the gasoline distribution chain. CMA also claimed that it was unreasonable for EPA to impose such extended liability on detergent manufacturers, since their involvement with the detergent and its subsequent blending is typically limited to the initial sale or distribution of the detergent.

EPA is clarifying in today's rule that parties are responsible for causing the presence of nonconforming products in their distribution systems, in addition to their liability for their own sale, transfer, etc. of nonconforming products. This scheme for presumptive liability is similar to that adopted under several of EPA's fuel regulations in Part 80, and has been found in practice to efficiently provide a mechanism for EPA to identify the party or parties that have caused a violation, and to impose adequate potential liability for purposes of deterrence.

Under today's rule, if a detergent manufacturer makes a sale of a nonconforming detergent, the detergent manufacturer is liable for a violation of the prohibition against selling nonconforming detergent. The detergent manufacturer is also liable for a violation for each of the days that any of the nonconforming detergent from that sale remains in the detergent distribution system. In addition, if the

nonconforming detergent was used by its purchaser to create nonconforming additized gasoline or post refinery component (PRC), then each day that the nonconforming gasoline or PRC remains anywhere in the gasoline or PRC distribution systems, is also included (but not duplicated), in the total number of days that the detergent manufacturer is in violation.

In addition, if there were two original sales of nonconforming detergent by the detergent manufacturer, each of these sales would be a separate violation for that manufacturer, with additional separate violations for each day that the nonconforming detergent from each sale remains anywhere in the detergent, PRC, and gasoline distribution systems, *i.e.*, if detergent from each sale is in its detergent distribution system or is found in additized gasoline or PRC in their distribution systems on a specific day, then there are two violations for that day. However, the detergent manufacturer is not also responsible for additional violations committed by downstream parties who deal with the nonconforming product. The daily violation for causing the presence of nonconforming product in the relevant distribution systems does not change depending on the number of people who happen to store, transport, sell or otherwise deal with the nonconforming product.

Although the comment related specifically to detergent manufacturers, this principle is applicable to all parties' liability under the detergent program. Causing the presence of nonconforming product in the relevant distribution systems is the basis upon which EPA established in the interim program the provision under which penalties continue to accrue for each day that the nonconforming product remains in these distribution systems. Thus, in clarifying this point in today's final rule, EPA has added appropriate language to §§ 80.155, 80.156, 80.168, and 80.169. This clarification does not constitute a change in EPA's implementation or intent with respect to either the interim program or the certification program.

3. Inclusion of Importers of Additized Gasoline Within the Definition of Detergent Blender. The definition of detergent blender in the interim rule did not include importers of additized gasoline. It became apparent to the Agency that this omission interfered with EPA's ability to determine if imported additized product had been properly additized, since only detergent blenders are required to maintain VAR records. EPA thus had less oversight over importers of additized gasoline than it did over the domestic detergent blending parties marketing the same product, increasing the risk of importation of misadditized gasoline. This omission also put domestic detergent blenders of gasoline at a competitive disadvantage in relation to importers.

To correct this problem, EPA proposed in the Reopening Notice to amend the definition of detergent blender to include those parties who imported additized gasoline. All of the comments received on this issue supported the proposed change. Commenters stated that including importers of additized gasoline within the definition of detergent blenders is fair and closes a gap in EPA's ability to enforce the regulation.

EPA agrees with these comments. Accordingly, today's final rule includes importers of additized gasoline within the definition of detergent blender. This change applies to both the interim program and the certification program.

4. Certification Use Restrictions. Under the interim program, the only possible detergent use restriction applies to detergents which have a separate LAC specific to leaded gasoline. Such detergents cannot be used at the leaded-only LAC with unleaded gasoline. In all other circumstances, any properly registered detergent can be legally used with any gasoline or PRC under the interim program.

Under the certification program, however, a detergent may be certified for one or more restricted uses, thus taking advantage of lower LACs applicable to some restricted gasoline pools (see Section IV). These use restrictions require corresponding prohibitions to ensure compliance with the restrictions, as proposed in the NPRM. Those parties choosing to take advantage of the use-restricted certification options in today's program must fully abide by the certified use restrictions or they will be subject to liability for violations for the sale, transfer, etc. of the nonconforming gasoline or PRC that results from the noncompliance. The following is a description of the certification rule's use restrictions, followed by a discussion of a permissible method of removing the restrictions under appropriate circumstances.

Under the PADD-specific certification option, gasoline and/or PRC additized with a PADD-specific detergent must be sold, transferred, etc. to the ultimate consumer or to a retail outlet or WPC facility, only in that specified PADD.

Detergent certified under the fuel-specific option, may only be blended into gasoline or PRC that conforms with the fuel segregation and composition requirements of the fuel-specific certification.

Under the national, PADD-specific, and fuel-specific certification options, if a detergent is certified with an LAC which is effective for use only with non-oxygenated gasoline, or only with gasoline containing a specified oxygenate (or non-oxygenated product), then that detergent at that LAC may only be used with the appropriate base gasoline or PRC product. In addition, oxygenates cannot subsequently be added to gasoline previously additized at a lower LAC certified for use with non-oxygenated gasoline. Similarly, an oxygenate not included in a given detergent's certification cannot be added to gasoline which was previously additized according to that certification.

Properly additized gasoline may be commingled with another gasoline which was properly additized with a different detergent, even if the second detergent's certification includes different use restrictions from the first. However, this does not apply to PADD specific detergents. Gasoline or PRC additized with a detergent certified specifically to one PADD may not be commingled with gasoline or PRC additized with a detergent certified specifically to a different PADD since, by definition, each batch of gasoline, including any PRC, must be sold or transferred to the ultimate consumer, etc., in its own PADD in order to be considered properly additized.

If, prior to EPA inspection or sale to the ultimate consumer, a party discovers that it possesses product that is nonconforming because of failure to conform to use restrictions, or that party wants to use an additized product in a way that would be nonconforming to that product's use restrictions, it is possible under appropriate circumstances to cure such nonconformity. Such a situation may occur, for example, during mandated oxygenate seasons, if a terminal has gasoline which it previously additized with detergent restricted for use with non-oxygenated product. In order to comply with the oxygenate requirements, such a terminal would be permitted to add oxygenate to the gasoline in spite of its oxygenate restriction, provided the appropriate curing steps were followed.

The Agency proposed in the NPRM that violations of certification restrictions (specifically, PADD-specific restrictions), would be curable by full readditization of the product with the proper PADD-specific detergent. Commenters from the automotive industry objected to this approach,

claiming that such double additization could cause combustion chamber deposit formation.

While EPA agrees that double additization is not a desirable cure for use restriction misadditizations, today's rule does permit limited readditization as a curing procedure under appropriate circumstances. For example, prior to EPA inspection and discovery of the problem and prior to sale of the product to the consumer, readditization is clearly appropriate in the case of gasoline that is nonconforming solely because it contains detergent at a lower treat rate than required for that gasoline product. This could occur when a batch of regular unleaded gasoline is accidentally additized with detergent at the lower treat rate certified for use only with premium gasoline, or when a batch of oxygenated gasoline is accidentally additized at a detergent's lower, non-oxygenated product treat rate. If the detergent has also been certified at a higher treat rate for use with the gasoline product at issue, then the violation can be cured merely by adding enough of the detergent to attain the appropriate, certified treat rate, pursuant to the formula specified in the rule. In such cases, documentation in the form of a ''curing VAR'' for the added detergent must be maintained. In addition, any PTDs created for the cured product must not include any reference to the prior use restriction which no longer applies.

Today's final rule similarly permits such curing to enable downstream parties to add substances which would otherwise be precluded by the upstream addition of restricted-use detergent. For example, oxygenate can be added to gasoline which already contains a detergent at a treat rate certified only for unoxygenated gasoline, provided the marketer adds at least enough additional detergent to achieve a combined detergent concentration no less than the detergent's certified LAC for oxygenated gasoline. In such cases, not only must the oxygenate component be properly additized with detergent, but the previously additized gasoline portion must be further additized to attain the certified treat rate for the combined end-product, *i.e.*, oxygenated gasoline.

However, if a downstream party does not know which detergent has been used upstream or does not have access to it, or if the initial detergent has not been certified for the downstream party's desired use, then the above provision would not enable the use restriction to be cured. For this reason, today's rule also permits a party to cure a use restriction, prior to EPA inspection or knowledge of the problem and prior to sale to the ultimate consumer, by adding the proper amount of any detergent (according to the formula for such addition provided at § 80.169(g)), that has been certified both for the desired use and the initial use. For example, oxygenate can be added to gasoline which already contains a detergent certified only for nonoxygenated gasoline, provided an adequate amount of another detergent is added which has different LACs certified for use with nonoxygenated and oxygenated gasolines. The minimum amount of new detergent required is a function of the difference between its certified treat rates for the new (e.g., oxygenated) and the initial (e.g., nonoxygenated) uses.

In a similar manner, if a party has misadditized gasoline or PRC in violation of a PADD restriction, the error can be cured most easily, prior to EPA discovery of the violation and prior to sale to the ultimate consumer, by adding more of the same detergent, provided it has been certified for the desired use. However, the violation can also be cured by adding an appropriate amount of a different detergent, provided it has been certified both for the PADD and the desired use (*e.g.*, national). The amount of additional detergent must be based upon the difference between the LACs for the PADD and other certification, and must at least equal the amount determined by the regulatory formula. In all these instances, the party must create a readditization VAR to document the use restriction curing procedure. If the above procedures are fully complied with, then the use restriction is effectively negated, and any violation that would have resulted from the use restriction is also obviated.

5. PTD Changes. The core of the PTD requirements established under the interim program continue under the certification program. However, certain changes and additions to the PTD requirements have been incorporated into the final rule. The following is a discussion of these changes.

a. Elimination of PTD Retention Requirement for Additized Gasoline for Wholesale Purchaser-Consumers (WPCs). Under the interim program, gasoline WPCs, as regulated parties under this program, are required to retain their PTDs for five years. However, EPA has determined that retention of PTDs for additized gasoline by such parties is not necessary.

The Agency's enforcement of the interim program thus far has centered around auditing the VAR activities of detergent blenders and conducting paperwork reviews of other parties in the gasoline distribution system, all as part of general fuel regulation compliance inspections. Because inspections of WPC facilities have not been extensive, and because EPA does not expect an increase in such inspections, EPA will not require WPCs to retain PTDs for additized gasoline under today's final rule. In the unusual event that they receive any other regulated product (such as unadditized gasoline or additized PRC), today's rule does require these parties to retain the PTDs for such unusual transfers. Parties selling or transferring regulated products to WPCs are still required to transfer PTD's to those parties and to retain copies of all such PTDs (except as discussed in the following section).

As proposed under the NPRM and as is required under the interim program, the certification program requires WPCs to receive PTDs at the time gasoline is transferred to them, so that they can review these documents to determine proper additization compliance (with the one exception for small loads discussed below). In addition, if a WPC transfers gasoline to another regulated party which is not an ultimate consumer using it in a motor vehicle, then the WPC is a distributor of the gasoline, and must comply with all PTD requirements that apply to distributors.

b. Elimination of PTD Requirements for Transfer of Small Loads of Additized Gasoline to Ultimate Consumers. Under the interim program, all regulated parties who transfer gasoline or additized PRC, with the exception of WPCs or retail outlets transferring gasoline to the ultimate consumer, are required to transfer PTDs for that product to the transferee. Similarly, all regulated parties receiving the product must obtain the PTDs from their transferor. The interim program further requires that such documents be maintained for five years from date of transfer.

The Agency was advised by the Independent Petroleum Marketers Association (IPMA) that this PTD requirement was creating a hardship for distributors in rural areas who pick up additized gasoline from terminals, and then deliver small amounts of this product to farmers. (See Docket items VI–D–51, VI–D–52, VI–D–66, and VI–D–67.) IPMA suggested that such transfers be made exempt from the PTD requirements since such sales are analogous to sales to the ultimate consumer from retail outlets, which are exempt from PTD requirements. These loads are typically divided from the larger truckloads picked up at the terminals. New delivery tickets are created for each of the divided loads, typically hand written and containing

minimal information. Thus, the creation and storage of detailed PTDs for those small deliveries is unduly burdensome.

The Agency agrees that small sales by distributors of additized gasoline to ultimate consumers for their own use can be considered analogous to retail sales and should be exempt from PTD requirements. The PTD requirements were established to alert regulated parties and the Agency to the additization status of the transferred product. This notification was not intended to be extended to retail customers. Further, the small amount of product involved, and the fact that the gasoline is not intended for additional transfer, diminishes even further the notification value of the PTDs in this situation.

In light of the purported record creation and maintenance burdens associated with these documents, and because of the minimal notification value associated with them, today's final rule exempts from the PTD requirements certain transfers of small amounts of gasoline. Specifically, the rule exempts transfers of additized gasoline of no greater than 550 gallons made by distributors which are not the detergent blenders of the gasoline, to ultimate consumers for their own use or the use of their agents or employees. The 550 gallon maximum is established because that is the criteria for minimum tank size used in the fuels regulations (40 CFR 80.2(o)) to define a party as a wholesale-purchaser consumer.

The PTD exemption is further limited by the type of parties involved with the transfer. The exemption does not apply to those distributors actually doing the detergent blending, since such parties typically are terminals with equipment that automatically produces PTDs, and thus have no need for the exemption. Further, the exemption is restricted to small deliveries to ultimate consumers of gasoline, who are not in the business of distributing gasoline to other parties. Deliveries to parties which distribute gasoline are excluded from this exemption since such marketers are responsible for the further transfer of gasoline to their own customers. The Agency expects gasoline marketers to fulfill their regulatory responsibility of reviewing PTD receipts to ensure that the product received is properly additized.

c. Address of the Transferee/Transferor. The certification program continues the interim program requirement that the addresses of both the transferor and the transferee of the product are to be listed on the PTD. Today's rule also adopts the Q&A Document modification that allows the address of the transferee to be identified on a separate document which must be made available to EPA inspectors upon request (Q&A Document #1, Q.15, p.14). This change responds to industry's concern about lack of space on commercial transfer documents due to PTD requirements.

For the sake of conformity with the PTD requirements of the RFG rules (40 CFR part 80, subparts D & E), as implemented by that rule's Q&A Documents, and because of document space concerns, today's final rule expands this alternative procedure to the identification of addresses of transferrers also. However, as in the RFG program, today's final rule establishes the following additional requirements for those who would use this alternative procedure: (1) The normal business practice between the parties must not include listing addresses on their transfer documents, and (2) both parties to the transaction must know and have records of the required addresses.

d. PTD Identification of Oxygenates and PRC Added to Gasoline. In promulgating the interim program, it was not necessary to require regulated parties such as refiners to identify on a gasoline product's PTD whether the gasoline had been blended with a particular oxygenate, since a properly registered detergent could be used with any gasoline, including oxygenated gasoline, sold in the United States. Using the same reasoning, the Q&As for the interim program clarified that any PRC (including an oxygenate) which was added to gasoline prior to detergent additization was not required to be identified on the gasoline's PTD. (Q&A Document #2, Q.6, p.11.) If, however, a PRC was additized separately from the gasoline, the same Q&A reaffirmed the regulatory requirement that the gasoline's PTD does have to identify the component, because it is useful for the Agency and regulated parties to be aware of the separate additization of the components.

In contrast, the identification of a refinery-added oxygenate or a PRC is very important under today's final rule, since a specific detergent certification may not cover the use of a particular oxygenate or, under the fuel-specific certification option, a particular PRC. Therefore, as originally proposed, today's rule requires that all gasoline product transfer documents identify any PRC added to the gasoline. It further extends the identification requirement to any oxygenate, whether refinery-added or a PRC, added to gasoline. Without such identification, parties may inadvertently additize gasoline containing an oxygenate or PRC with detergent that has not been certified for use with that product.

e. Detergent Package Use Restriction Designations. Since today's final rule permits detergents to be certified for use with a specific fuel, or for a variety of restricted uses, it is important that the PTDs for detergent packages identify the existence of any special use restrictions. Without such identification, there would be greater possibility that a detergent blender would inadvertently use the detergent with inappropriate gasoline.

In the NPRM, the Agency proposed that PTDs for certified detergents with PADD, fuel-specific, CARB-based, or leaded gasoline use restrictions must specify the use restriction that applied to the detergent being transferred. Today's rule adopts the concept that a detergent's use restrictions must be highlighted on the detergent's PTD. However, because detergents under today's rule may be certified with a multitude of different LACs related to different use restrictions, today's final rule only requires PTDs for such products to include a general warning that use restrictions apply to the product. The Agency believes that requiring identification on a detergent package's PTD of all the options and corresponding use restrictions under which a detergent has been certified would result in a waste of space on PTDs for those detergents with numerous use-restricted LACs. Furthermore, identification of numerous LACs could be confusing and counter-productive to the recipient of the detergent, since many of the use restrictions may not be relevant to the particular party receiving the detergent.

Therefore, under today's rule, if a detergent has only one certified LAC for generic use with any fuel product, then the PTD for the detergent must not include any reference to use restrictions. However, if the detergent's only certified LAC is for use with a restricted product (*e.g.*, fuel-specific, leaded only, premium only, etc.), then the PTD for that detergent package must identify the detergent as use-restricted detergent. Similarly, if a detergent has been certified with two or more LACs, and thus has a variety of restricted use possibilities, the PTD for that detergent package must indicate that the detergent has special use options available. The Agency believes that such PTD identification will give adequate notice to detergent recipients of the use-restricted status of transferred detergents, while not presenting so much information that the recipient might be misled by it.

f. Fuel-Specific Gasoline Designations. As proposed in the NPRM, today's final rule requires that base gasoline which is segregated for use with a particular fuel specific-detergent must be identified as such on its PTD. This identification will help prevent the use of the specialized detergent with an inappropriate gasoline. The PTD for such gasoline must indicate that it is base gasoline for use with the designated detergent package.

Because fuel-specific certification is based on gasoline from a segregated fuel supply, oxygenates or PRCs may be added to the subject gasoline only if they were specifically included in the detergent's fuel-specific certification. Today's rule adopts the proposed provision that base gasoline with oxygenates or PRCs which were not included in the designated detergent's fuel-specific certification cannot be identified on its PTD as base gasoline for use with that fuel-specific detergent.

At the marketer's option, base gasoline which is designated for a fuel-specific detergent may be additized with a different detergent, or at a non-fuel-specific LAC treat rate. The fuel-specific designation does not require the use of the fuel-specific detergent, it merely permits it.

Today's certification rule also specifies the proper PTD identification for the fuel-specific gasoline designated in a fuel-specific detergent certification which establishes that such gasoline does not need to be additized. Because some unusual gasoline supplies may be able to pass the performance requirements of detergent certification testing without the use of detergents, today's rule provides that such gasoline may be legally sold and transported under the fuel-specific certification option. The rule further requires that a PTD for such product must identify it as ''detergent-equivalent gasoline''. This is appropriate nomenclature, since the fuel is equivalent to additized gasoline in its deposit prevention capability. The use of this PTD identification will provide notice to recipients of the actual additization status of the product.

g. PADD Designation on PTDs for Additized Gasoline or PRC. Today's rule adopts the proposal that the PTD for gasoline or PRC additized with a PADD-specific detergent must identify the product as restricted for ultimate sale or transfer in that PADD. For example, use of the phrase ''PADD I only'' would be considered acceptable identification of this restricted use. In a similar manner, the PTD for gasoline additized with a CARB-based certified detergent must identify the product as CARB-based, to alert recipients that the gasoline must either have been additized in California or sold to the ultimate consumer in that state. (See section VIII(B)(7)(c), below, for a discussion of specified detergent rule exemptions for gasoline additized and sold in California.) As discussed above, gasoline or PRC may be cured of PADD or other use restrictions through the approved readditization curing process.

h. Identification of Oxygenate and PRC Use Restrictions on PTDs for Additized Gasoline. As previously discussed, a misadditization violation would arise under today's rule if oxygenate or PRC were added to gasoline additized with a detergent restricted against that use. Therefore, successful implementation of the detergent program requires that gasoline additized with such detergent must have a PTD identifying the oxygenate or PRC restriction. Use of such phrases such as ''oxygenate use prohibited'' or ''MTBE use only'', would be acceptable identification. Such PTD identification for the additized gasoline will provide notice to downstream parties of the continuing oxygenate or PRC use restriction applying to the product. It will also alert these parties to the need to eliminate the restriction through the approved curing method if they desire to add the restricted component.

This PTD identification requirement for additized gasoline is a modification of the NPRM proposal, which would have required that PTDs for additized gasolines identify the EPA certification number of the detergent used to additize the gasoline. Under the proposal, the use of the specified certification number would have provided notice to recipients that the particular use restrictions certified with that specified detergent needed to be followed.

However, today's final rule does not provide certification numbers for detergents, since EPA does not believe that the informational benefits of such numbers would outweigh the administrative and recordkeeping burdens associated with them. As a more efficient substitute, today's rule merely requires that those gasolines actually additized at a use-restricted LAC rate must identify the applicable oxygenate or PRC use restrictions on their PTDs.

i. Base Gasoline Identification. Under the interim program rule, all regulated parties transferring unadditized gasoline are required to identify the product on its PTD as base gasoline. In addition, PTDs for such product are also required to state the warning that this gasoline is ''Not for sale to the ultimate consumer''. These base gasoline requirements originally proposed in the NPRM were considered necessary to highlight to the recipients the significant information that such unadditized product could not legally be sold or transferred for consumer use.

Although the Agency still believes it is important for unadditized gasoline to be highlighted as such within the gasoline distribution system, EPA no longer considers it necessary to mandate particular identification language (e.g. the phrase ''base gasoline'') for it. EPA experience in implementing the interim program has shown that permitting industry flexibility in complying with PTD identification requirements has not resulted in significant identification problems. Therefore, under today's final rule, PTDs for base gasoline may use any nomenclature which clearly states that the base gasoline is unadditized. However, today's rule does require that PTDs for most base gasolines must include the mandated language specifically warning against the sale of unadditized gasoline to the ultimate consumer.

An exception is base gasoline to be used for research and development purposes, as discussed below in section VIII.B.7. Another exception was initially articulated by EPA in Q&A Document #1, Q.13, p.13, in response to a refiner's suggestion that the consumer-sale prohibition language was unnecessary on certain specialized PTDs. Specifically, an industry party requested permission to delete this language on PTDs for contractually controlled bulk transfers of unadditized product from refiners to pipelines, when the parties have a written agreement which states that the pipeline will not sell or transfer the unadditized gasoline to ultimate consumers.

The Agency agreed in the Q&A Document that transfers between these parties under these circumstances should not require the PTD warning language, because the likelihood of such unadditized product being mistakenly delivered to a consumer is minimal. Today's final rule codifies this exception to the PTD warning language requirement in the limited circumstances outlined above. The Agency believes that this modification of the proposal will not result in the sale of unadditized product to consumers, but will reduce the paperwork burden on refiners and pipelines.

j. Use of Product Codes on PTDs. The NPRM and interim program did not address the use of product codes and other language not specified in the regulation, to satisfy the information requirements established for PTDs. However, both in comments on the

NPRM, and in implementation feedback to the Agency (See Q&A Document #1, Q.13, p.13), regulated parties requested permission to use product codes to satisfy PTD information requirements proposed in the NPRM and codified in the interim program. The rationale given by the parties supporting such substitution is that the use of product codes would greatly reduce the amount of space needed to convey the required information.

The Agency is sympathetic to industry's need to conserve space on commercial documents because transfer documents have to comply with several regulatory information requirements, not only those associated with the detergent rule. In response to this concern, the Agency issued a Q&A Document which permitted the use of product codes to comply with the interim program's PTD requirements, provided certain conditions were met (Q&A Document #1, supra.) The conditions are designed to ensure clear communication of the information required by the regulation.

Under the Q&A guidance, product codes or other alternative language must be clear, accurate, and not misleading. They must be standardized throughout the distribution system in which they are used, and downstream parties must be informed of their full meaning. However, parties may not use product codes or alternative language to substitute for the two required warnings found in the interim regulation. These are the prohibition against the sale of base gasoline to the ultimate consumer, and the statement that a detergent certified only for the control of carburetor deposits must be used with leaded gasoline only. The Agency believes that these warnings are so important that abbreviations or substitutions for them would not provide adequate notice to receiving parties.

Today's final rule codifies this approach. The rule's provision requires such codes to be clear and accurate, so that any parties transferring PTDs with product codes or alternative language which are confusing or not effectively explained to downstream parties, are not in compliance with the detergent rule's PTD requirements. Such parties are also liable for any product nonconformity violations caused by the non-complying PTDs.

Today's rule does not prohibit the use of product codes to convey the leaded gasoline only warning, since PTD notification requirements for all detergent package use restrictions, including the leaded gasoline restriction, are treated in the same way under today's final rule (See preamble section VIII.B.5.e.). Instead, compliance with the generic use-restriction language is required, to provide effective notice to recipients of the detergent package that the use of the detergent is subject to conditions.

As discussed in the previous section, today's rule does not permit, in most instances, substitution for the regulatory warning language against the sale of base gasoline to the ultimate consumer. However, electronic data transmissions cannot accommodate the PTD regulatory language for base gasoline transfers. Consequently, as under the RFG program, today's final rule permits the warning language on electronic PTDs to be reflected by product codes, provided that such documents are for title transfers only, and do not involve actual transfer or possession of the product. Under the specified conditions, the Agency does not believe that the absence of the exact regulatory warning language from the electronic PTDs will result in the improper transfer of unadditized product.

k. PTD Requirements for Gasoline Overadditized for the Later Addition of Ethanol or Other PRC. Under the interim rule, when gasoline is overadditized to account for the later addition of unadditized PRC, the PTD for the gasoline must indicate that the product has been overadditized to account for the later addition of a specified volume of PRC. The purpose of this requirement is to provide notice to the recipient that only the stated volume of PRC has been accounted for by the gasoline's overadditization.

At the 1994 API public seminar on the interim program, EPA received industry feedback that it would be difficult for marketers to identify on PTDs the actual amount of anticipated ethanol that the particular overadditization accounted for, and that it would be much more convenient and preferable to identify the standardized, maximum percentage of product volume that the anticipated ethanol could comprise (See Docket item IV–E–45). For example, most blenders using this procedure would over-additize a batch of gasoline in anticipation of the later addition of ethanol amounting to no greater than 10 percent of the fuel's finished volume.

The Agency believes that identification of the maximum percentage of total product volume that the blender anticipates will be PRC, and for which the blender has additized, will provide adequate notice of the maximum amount of such product that may be added to the additized gasoline. Therefore, EPA stated at the API seminar that blenders could identify on PTDs the amount of ethanol that could be added to overadditized gasoline either by this percentage, or by the volume of ethanol. Today's final rule codifies this change as to ethanol and other PRCs.

6. Extension of the Agency's Right of Entry into Facilities of Detergent Manufacturers, Distributors, and Carriers. Neither the NPRM nor the interim program addressed the Agency's authority to enter and inspect the premises of parties in the detergent distribution system. The EPA believes that such authority is included in its information gathering authority under section 114, as well as in its authority to regulate detergents under section 211(l) of the Clean Air Act, and in its general authority under section 301(a). Therefore, EPA proposed in the Reopening Notice to expand its right of entry provision located at 40 CFR 80.4.

Section 80.4 currently states that the Administrator or her authorized representative may enter the premises of parties in the gasoline distribution system to make inspections, take samples, and conduct tests to determine compliance with EPA fuels requirements under 40 CFR Part 80. In the Reopening Notice, the Agency proposed expanding this section to include entry into the facilities of the detergent manufacturers, distributors, and carriers now regulated under Part 80.

Only one commenter, the Chemical Manufacturers Association, opposed the proposal, and did so only in regard to detergent manufacturers. CMA stated that section 211(l) does not make it unlawful for detergent manufacturers to produce or store detergents out of conformity with EPA specifications. CMA argued that EPA's only legitimate concern under section 211(l) was to ensure that detergents met specifications when they were blended into gasoline. This commenter believed that the Agency could adequately address this concern by sampling detergents only at the premises of detergent blenders. Thus, argued CMA, EPA's right to enter and inspect the premises of a detergent manufacturer could not be considered necessary to carry out its functions under the Act and was, therefore, not authorized under section 301.

The Agency disagrees with CMA's argument. The Agency believes that it is necessary for EPA to inspect the premises of detergent manufacturers, both to enforce the detergent specifications mandated by section 211(l), as well as to prevent the creation of misadditized gasoline which would also be in violation of section 211(l).

Detergent manufacturers can clearly cause detergents to fail to conform to required specifications through their improper manufacture of the detergents. Their sale of such nonconforming detergent, which is a violation of the detergent program in itself, would then cause other violations of the program, namely, the sale of misadditized gasoline based on that detergent nonconformity.

To ensure that the regulatory detergent specifications are met and that detergent is not sold which would cause the sale of misadditized gasoline, it is necessary for the Agency to sample and test detergent at all points in its sale/distribution system, including at detergent manufacturer facilities. It would be counter-productive and impractical for the Agency to wait to sample and test nonconforming detergent until a detergent blender is actually in the process of using it, or has already used it, in violation of section 211(l) prohibitions. Thus, the Agency's ability to inspect the premises of detergent manufacturers is reasonable and necessary for EPA to effectively carry out its statutory mandates.

7. Exemptions. As proposed in the NPRM, the interim program includes an exemption from the requirements of the detergent rule for detergent used for research, development, and testing purposes. Also exempt under the interim program are aviation fuel and racing fuel. Several parties commenting on the interim program have requested modifications of these exemptions. (See Docket items #IV–E–41, VI–D–08 and VI–D–69.) The following is a discussion of the exemptions finalized today, including a discussion of the newly-included California gasoline exemptions.

a. Research, Development, and Testing Exemption. In the NPRM, EPA proposed that parties conducting research and development (R&D) testing of gasoline and detergent additives could apply to the Agency to obtain detergent rule exemption waivers for their products. Pursuant to industry comment that the proposed waiver procedures were burdensome and unnecessary, the interim program established an R&D-exemption which did not require a specific EPA waiver. Under this provision, detergents that are in a research, development, or test status, or are sold to petroleum, automobile, engine, or component manufacturers for such purposes, are exempt from the rule's requirements, provided that (1) the detergent or the fuel containing the detergent is kept segregated, (2) documentation identifies the product as R&D and states that it is only to be used for R&D purposes, (3) the product is not sold or transferred, or offered for sale or transfer, from a retail outlet, (4) if the detergent is transferred or offered for transfer from a WPC facility, that facility is R&D associated, and (5) the party using the product notifies EPA at least annually, and prior to usage, of the purposes of the R&D program and the volume of the product to be used.

A comment on the Reopening Notice pointed out that this R&D exemption did not appear to include base gasoline to be used for R&D purposes. This commenter suggested that EPA specifically add base gasoline to be used for R&D purposes to the products being exempted under the rule. The commenter also suggested amending the PTD warning requirements for base gasoline, so that a base gasoline PTD could say either that the product was not for sale to the ultimate consumer or, if appropriate, that it was to be used only for R&D purposes.

The Agency agrees with this comment about the R&D exemption. The omission of R&D base gasoline from the language of this exemption provision was unintentional. Today's final rule therefore corrects this omission and specifically includes within the exemption all R&D gasoline, both base and additized product. The rule requires, however, that for gasoline to be exempt under this provision, it must be used by an appropriate R&D institution, *i.e.*, a manufacturer of additives, gasoline, automotive parts, or automobiles, or it must be used under the control of such a party. This requirement will ensure that only parties legitimately connected with petroleum, additive, or automotive research and development will be able to use the exemption.

In response to the request that EPA allow PTDs for R&D base gasoline to identify the product as such, and to state ''For R&D purposes only'' instead of the general warning against sale to the ultimate consumer, today's final rule permits such information on PTDs for this fuel.

CMA commented that the R&D exemption requirement of prior and annual notification to EPA was unfair and burdensome. This commenter asserted that such notification was not required for the other detergent rule exemptions, and therefore should not be required for this one. Further, CMA argued that the actual volume of R&D product to be used in an upcoming year was not knowable at the beginning of the year, which would make it difficult to comply with the reporting requirement. Both CMA and a second industry commenter (Docket item #VI–D–57) believed that the notification requirement was confusing as to which parties had to report, because contract laboratories often perform research on behalf of the gasoline, additive, or automotive manufacturers.

While today's final rule retains the annual notification requirement for the R&D exemption, EPA has modified the requirement in response to these comments. The Agency believes that annual notification is necessary because it alerts the Agency to intended R&D product use. The Agency can then inspect the R&D facilities to ensure that the exempted product is actually being used for legitimate R&D purposes. In addition, the prior notification requirement is useful for enforcement purposes because any party attempting to assert R&D status as a rationale for noncompliance will first have to establish that it previously notified the Agency of its intended R&D use.

However, in response to commenter concern, the final rule does ease the R&D notification requirements. The rule permits either the party actually conducting the research or the party controlling the research to make the notification to EPA. Therefore, if they choose, manufacturers can submit one annual notification to cover all the R&D products that their contract laboratories are testing for them, obviating the need for contract laboratories to submit multiple notifications for their varied testing work. Moreover, the annual notification need only identify a reasonable estimate of the R&D product to be used in the coming year, rather than a certain amount.

b. Racing and Aviation Fuel Exemptions. As proposed in the NPRM, the interim program included an exemption from detergent rule requirements for fuel sold, transferred, etc. as automotive racing fuel and for fuel sold, etc. as airplane engine fuel. For such fuel to be exempt, it must be kept segregated and must be accompanied by documentation identifying it as racing or aviation fuel, not for street or highway use. The exemption provision also required that the product not be sold or transferred from a retail outlet.

Several comments on the NPRM protested the restriction that racing fuel sold or transferred from a retail outlet would not qualify for the exemption. These comments stated that prohibiting the sale of such fuel at retail outlets would be unfair to auto racing participants, since some racing facilities do not have fuel pumps available. Further, the comments alleged that this

requirement would discriminate unfairly against retail outlets.

The interim program's exemption for racing fuel included the retail outlet sale restriction because such fuel, which normally has a high lead content and lacks detergent additives, is not appropriate for street or highway use. Retail outlets, by their very nature, are facilities at which fuel is sold to consumers for street or highway use. Therefore, the Agency believed that permitting the sale of this product at facilities regularly selling gasoline to general consumers would be conducive to the illegal sale and use of this exempted product.

EPA remains concerned about this potential problem, but agrees with the commenters that completely prohibiting the sale of exempt racing fuel at retail outlets is an unnecessarily broad solution. Therefore, today's final rule places less restrictive requirements on the sale of exempt racing fuel to protect against the sale of this product to highway-use consumers.

The product segregation and documentation requirements promulgated in the interim program will continue under today's rule. Also, the rule affirms that the exemption is confined to fuel distributed to racing vehicles that are restricted for nonhighway use. This requirement is consistent with that of the RFG program. The consistency between the two fuels programs will make it easier for parties to comply with both programs. In addition, today's rule requires that pumps from which racing fuel is dispensed must be clearly labeled as such.

The Agency believes that these provisions will prevent the improper use of unadditized racing fuel in highway vehicles as effectively as the proposed retail outlet sale prohibition would. At the same time, these requirements do not unfairly discriminate against retail outlets but apply, instead, to all parties selling or transferring racing fuel.

It is a violation of today's rule to sell product claimed to be exempt racing fuel and not properly additized to a consumer for street or highway use. The Agency believes that parties who sell or transfer the product to inappropriate recipients may have difficulty establishing for an affirmative defense that they did not cause the violation if they cannot demonstrate that they complied with the exemption requirements and that they had taken reasonable steps to ensure the product would be used in the proper manner so that the exemption would apply.

Today's rule continues to exempt aviation gasoline. Similar to the exemption for racing fuel, today's rule requires dispensers of exempt aviation gasoline to properly label the aviation pumps, and to sell or transfer the product for aviation use only. The interim program's segregation and documentation requirements for this product are also continued in today's rule. The Agency believes that these requirements will ensure that the exempt product is used only in aviation engines.

c. California Gasoline Exemptions. The interim program requires that gasoline additized and sold or transferred to the ultimate consumer in California is subject to all the enforcement-related provisions of the Federal detergent program, including the VAR and paperwork requirements, in spite of the fact that CARB is also regulating this fuel under its own detergent program. At the time the interim rule was promulgated, EPA was concerned that CARB's detergent program might not be as effective as the Federal program in ensuring compliance with the Federal standards for proper additization. However, CARB's enforcement of its detergent regulation program has proven to be very vigorous, and its enforcement requirements have been shown to be effective.[29] Further, CARB has proposed changes to its detergent program which would make CARB's program even more rigorous in the future.[30]

Therefore, EPA now considers that CARB's VAR and paperwork requirements, even under the present CARB statutory language, will be as effective in ensuring compliance with the Federal standards as are their Federal program equivalents. Consequently, EPA has decided to create exemptions for California gasoline from the Federal VAR and PTD provisions. Since the equivalent CARB record keeping and reconciliation provisions are effective, these Federal enforcement requirements would be superfluous in California.

Today's rule merely exempts the specified California gasoline from certain Federal enforcement program requirements that are unnecessary in California. Specifically, gasoline additized in California is exempt from the Federal PTD requirements. Such gasoline is still subject under today's rule to the general requirements of additization and sale in conformity with Federal certification requirements, since Congress mandated the additization, pursuant to EPA specifications, of all gasoline sold to consumers in the United States. California detergent blenders can comply with both the state and Federal requirements by using detergents which have CARB-based Federal certifications, and following the CARB-mandated record keeping and VAR procedures. EPA will evaluate California blenders' compliance with the Federal LAC standards by examining the records of the same type mandated by CARB, plus the CARB-mandated type of records for gasoline additized in California for ultimate sale elsewhere. The Agency does not expect to regularly conduct detergent program inspections in California. EPA believes that CARB's enforcement of the California requirements will adequately assure compliance with Federal standards. However, if EPA believes it appropriate, the Agency will conduct detergent program inspections of California facilities.

To ensure that the Agency will have access to the same amount of compliance records for California detergent blenders as for blenders outside of California, today's final rule requires California-regulated parties who operate under the exemption from the Federal VAR requirements to maintain the detergent program records required by CARB (and the same type of records for gasoline to be sold outside of California), for the same five-year period that records are required to be maintained under the Federal program. The Federal VAR exemption is predicated on this record creation and maintenance. The Agency will thus be able to review these compliance records, if and when it chooses to inspect California facilities, covering the same time period that applies in other states.

The California gasoline exemptions from the specified VAR and PTD provisions of the Federal detergent enforcement program are also predicated on EPA's conclusion that the CARB program is as effective as the Federal program in ensuring compliance with the Federal detergent standards. EPA intends to monitor CARB's program to ensure that these exemptions continue to be justified. If EPA determines that changes in CARB's regulations or its enforcement practices, or other changed circumstances, would compromise the CARB program's ability to ensure compliance with Federal additization standards, then EPA may

[29] See Docket item VI–D–68 for a summary of CARB's detergent program enforcement actions.

[30] See Docket item VI–D–55 regarding the 9/29/95 Proposed Amendments to CARB's Detergent Additive Rule.

delete these exemptions through a future rulemaking.

C. Proposed Changes Not Incorporated in the Certification Rule

Several changes to enforcement provisions of the interim program were proposed in the Reopening Notice but are *not* incorporated in today's certification rule. The following is a summary of these proposed changes along with the reasons they were ultimately rejected by the Agency.

The first such nonfinalized proposal would have required the use of meters on all automated additization equipment injectors. EPA proposed this metering requirement to promote greater additization accuracy. However, comments on this proposal universally condemned it as being expensive, disruptive of industry's present operating procedures, and not necessarily effective in ensuring greater accuracy. The commenters believed that the detergent program should continue to permit blenders to use their existing equipment, unless enforcement experience established a need for greater accuracy.

These comments are persuasive. EPA enforcement experience of the first year of the detergent program has indicated minimal problems with non-metered records. Therefore, the extra expense of new metered additization equipment has not proven to be necessary.

The second nonfinalized proposal would have required VAR volumes to be recorded to the nearest tenth of a gallon, instead of the nearest gallon requirement established under the interim program. Commenters disputed the need for increasing the severity of the recording requirement, since some additization systems cannot measure volumes to that degree of precision and installing new equipment would be very costly. At the same time, commenters asserted that increasing the precision would not bring noticeable benefits in greater additization accuracy. In particular, it was pointed out that recording volume figures to one tenth of a gallon, for the large volumes of fuel typically being recorded, would be meaningless in improving additization compliance.

The Agency finds these comments persuasive, except as regards VAR reporting of detergent volumes of five gallons or less. Reporting such small amounts of detergent only to the nearest gallon would create a greater than 10 percent degree of inaccuracy in reporting the additization that actually occurred. The Agency believes that this is an unacceptable level of inaccuracy in VAR compliance reporting. Therefore, although the proposed change to a tenth of gallon reporting is not generally incorporated in today's final rule, detergent volumes of five gallons of less are required to be recorded on the VAR formula records to the nearest tenth of a gallon (or smaller unit), if the blender's equipment can measure to this level. If not, such volumes are to be reported down to the nearest gallon. This procedure will address EPA's concerns for accurate reporting of additization, while also meeting industry's objection to purchasing upgraded equipment merely to ensure this accuracy.

Another proposed change not incorporated in today's final rule was the imposition of a minimum detergent concentration for each gallon of gasoline additized, in addition to meeting the VAR averaging requirement. This was another proposal that industry commenters to the Reopening Notice consistently opposed, primarily because of the huge expenses they said would be entailed for installing additization equipment that could monitor per-gallon compliance. Commenters argued that little gain would result from this requirement, since deposit formation occurs over the long term. Therefore, according to these commenters, the compliance already required under the VAR averaging procedures should be adequate to prevent such buildups.

EPA concedes the points made, and has chosen to delete the proposed requirement of per-gallon minimum additization. This decision could be revisited in the future, however, if experience shows that such additional compliance requirements are necessary to effectively prevent deposit formation.

The fourth change not incorporated was the extension of presumptive liability for VAR violations to all parties, except upstream carriers, in the product's distribution system. See Section VIII.B.2.b. for a discussion of this issue.

The final proposed change from the Reopening Notice that was not included in today's rule was the prohibition against the use of multiple equipment set rates within one VAR formula record. The Agency was concerned that if gasoline additized under several detergent concentration set rates were included within the reported VAR volumes in the same formula record, then there would be inadequate assurance that the gasoline additized at the lower rates was in compliance with the LAC standard. Compliance at the higher rates could mask noncompliance in the lower rates. Therefore, the Agency proposed the prohibition against the use of multiple set rates within the same VAR record.

Detergent blender commenters to this proposal wanted to retain the ability to use multiple set rates in the same VAR record because it would minimize their VAR paperwork burdens and would allow the use of present equipment. They rejected the need for the proposed prohibition, arguing that the interim program's prohibition against setting any injector's set rate lower than the LAC and the additional prohibition against adjusting any injector's set rate higher than 10 percent of its initial setting, would effectively ensure that the gasoline additized at the lower treat rates also attains the LAC standard.

The Agency agrees with these comments that the interim program's set rate requirements do provide some insurance that the gasoline additized under the lower concentrations will be adequately additized. Therefore, EPA does not consider the added paperwork and equipment expenditures associated with the proposed multiple set rate prohibition to be warranted. However, the certification program maintains the interim program requirement that detergents being used at different LACs must be recorded and reconciled on separate VAR formula records (See section VIII.B.2.e.). Since VAR compliance is based on the comparison of the actual detergent concentration attained with the appropriate LAC certified for the fuel product being additized, each restricted LAC must be separately compared to the respective additized product.

To make this requirement meaningful, the certification program continues the interim program's requirement that blenders using a detergent at different LACs must have the ability to accurately measure the additization occurring under each LAC. Both the interim and certification programs provide flexibility to blenders in satisfying this requirement. For example, such blenders could measure usage from different tanks containing the detergent being used at different LACs, use a separate meter on an injector that is additizing under a separate LAC, or use a meter capable of distinguishing additizations under separate LACs.

In summary, for the reasons outlined above, EPA agrees with the overwhelming majority of commenters to the Reopening Notice that the above compliance provision modifications discussed in this section should not be adopted. To date, EPA's enforcement experience with the interim program has shown a high level of additization compliance. If future experience reveals that current enforcement provisions are

inadequate, then EPA may revise these provisions through another rulemaking.

IX. Administrative Requirements

A. Administrative Designation and Regulatory Analysis

Under Executive Order 12866 (58 FR 51735, Oct. 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 any regulatory action 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 entitlements, 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, EPA has determined that this final rule is a ''significant regulatory action''. EPA's regulatory impact analysis (RIA),[31] available in the public docket and summarized below, indicates that the annual costs to producers for compliance with the requirements of the certification program are expected to exceed $100 million. Therefore, EPA has treated this action as significant and has submitted a regulatory analysis to the Office of Management and Budget (OMB) for review.

The total cost of the detergent additive certification program includes costs associated with certification testing and additional registration and record-keeping requirements, as well as additization costs. Over 90 percent of the total estimated cost of the program is associated with the price of the additives needed to bring all gasoline up to the effective detergency levels which much of U.S. gasoline already contains. The average incremental cost to consumers is projected to be approximately 0.10 cents per gallon of gasoline. This amount will be partially compensated for by the increased fuel economy and decreased maintenance requirements which improved deposit control is expected to provide.

The gasoline detergent additive requirements are expected to result in reductions in motor vehicle emissions of hydrocarbons, carbon monoxide, and oxides of nitrogen, totalling over one million tons during the 30-month interim program and about 600,000 tons per year under the detergent certification program. These emissions reductions will be achieved at relatively low cost, i.e., about $226 per ton. Fuel economy benefits are also expected as a result of the detergent program, amounting to nearly 450 million gallons during the 1995–2001 period. The savings associated with this fuel economy benefit are expected to partially offset the costs of the program, decreasing the cost per ton of emissions reduction to $120.

The program is not expected to be a significant cost burden to individual businesses, and adverse effects on competitive relationships are not expected. In fact, this rule should result in increased sales and business opportunities within the fuel additive industry. Any written comments from OMB and any EPA response to OMB's comments are available in the public docket for this rule.

B. Regulatory Flexibility Act

EPA's analysis of the impact of this rule on small entities is included as Chapter 5 in the Regulatory Impact Assessment (RIA) that was prepared in association with the interim program as described above.

The analysis shows that the regulatory responsibilities of the various types of businesses affected by this rule, along the chain from gasoline refiner to distributor to retailer, differ significantly. For each type of business, however, even for the small business entities in this chain, the costs of the regulation are estimated to be modest. The largest costs will be incurred by gasoline producers in the price of the additional detergent additive required to be added to gasoline. However, this basic cost is essential to the Clean Air Act mandate and for realization of the program's emission control objectives. Also, to some extent, additization costs are expected to be passed along the distribution chain to consumers. In the case of small additive manufacturers and additive injection equipment manufacturers, rather than being unduly burdensome, this regulation could result in significant economic opportunities through increased sales.

The addendum to the RIA, as noted in the previous section, was prepared to reflect minor changes in the regulatory program from the previous analysis. Relevant changes were primarily associated with the cost of detergent certification testing, especially in regard to test fuel qualification. For small additive manufacturers, which are likely to use the services of contract laboratories for certification testing, such costs can be largely defrayed by cost sharing, since ''proven'' test fuels can be used by an unlimited number of laboratory customers. Furthermore, the economic benefits to small additive manufacturers of the requirements for detergent use will more than compensate for the manufacturer's certification costs under this rule. Thus, as was found in the original analysis, the addendum to the RIA concluded that significant adverse economic impacts on small businesses are very unlikely to occur as a result of this rule. Consequently, EPA has determined that this rule will not have a significant adverse impact on a substantial number of small entities.

C. Paperwork Reduction Act

The changes to the detergent program's information collection requirements in this rule have been submitted for approval to the Office of Management and Budget (OMB) under the requirements of the *Paperwork Reduction Act,* 44 U.S.C. 3501 *et seq.* An Information Collection Request document has been prepared by EPA (ICR No. 1655.03) and a copy may be obtained from Sandy Farmer, Regulatory Information Division; EPA; 401 M Street, SW. (Mail Code 2137); Washington, DC 20460, or by calling (202) 260–2740. These new requirements are not effective until OMB approves them. The information collection requirements currently in force under the interim detergent program (ICR No. 1655–02) will continue to be effective until replaced by those contained in today's rule. In addition, many of the information collection requirements unique to the detergent certification program were anticipated in the NPRM and were previously approved by OMB (ICR No. 1655–01). These requirements will also be effective until the requirements contained in today's rule are approved by OMB.

The information to be collected is necessary for the Agency to ensure that detergent additives that are effective in controlling deposits are used and that the emissions control goals of this

[31] The RIA was prepared in conjunction with the interim detergent program based on costs and benefits projected for the detergent certification program (Docket item V–B–01). An addendum updating the RIA was prepared to reflect minor changes in program costs from those projected in the original analysis (Docket item V–B–03).

regulation are realized. The information will be used by the Agency to evaluate whether the deposit control performance standards in today's rule have been satisfied, that detergents are blended into gasoline at the required levels, and that the restrictions placed on the use of detergents certified under the different certification options are observed. The information collection requirements are mandatory apart from those associated with maintaining affirmative defenses. Section 114 of the Clean Air Act (CAA), 42 U.S.C. 7414 authorizes EPA to require recordkeeping and reporting regarding enforcement of the provisions of Title II of the CAA, including the provisions related to this rule. Any information or detergent samples submitted to EPA for which a claim of confidentiality is made will be safeguarded according to EPA regulations at 40 CFR 2.201 *et seq.*

The following estimates of this collection requirements hourly and cost burden include the time to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to respond to a collection of information; search existing data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

The desegregated hourly burden estimates for this collection are as follows:

(a) *Additive manufacturers:* (1) EPA estimate that two research exemptions will be reported each year per respondent at about 0.08 hr. per response, with 59 total respondents; (2) The certification testing recordkeeping burden is estimated at approximately 3.5 certifications per respondent in 1996 and 1997 with 59 total respondents. In 1998 and following years this is estimated to drop to approximately one certification per respondent. The burden initially includes about 382 certifications but is reduced dramatically to a turnover rate of about 15 percent of the initial number of certifications annually in future years. The burden per certification response is estimated to be less than 90 hours. The 1997 hours for all respondents is approximately 21,830. This is reduced to about 5,160 hours in 1998 and 1999; (3) Other yearly requirements are customary business practices or have no hourly burden except a 0.15 hr. burden to review the instruction for quality assurance provision;

(b) *Refiners and importers:* (1) Refiner/importer voluntary quality assurance for defense involves about 20 responses per respondent with about 0.01 hr. per response. One hundred parties are estimated to perform these voluntary quality assurance procedures; (2) Other requirements involve no hourly burden;

(c) *Terminals who blend detergent:* The monthly detergent use accounting records requirement is largely a customary business practice that was adapted to EPA format under the previous interim rule. It is estimated that there will be 12 responses per year per detergent for each terminal. The on-customary business practice hourly burden per terminal per month is about 0.01 hour. It is estimated that there might be as many as 1,246 respondents; (2) The required calibration of terminal equipment is already performed, however, the rule requires that it be performed at least twice per year. The associated non-customary business practice burden per response associated with this calibration requirement is estimated at 0.21 hours, with 1,200 automated terminals participating. The startup burden per terminal to read rule/instructions is estimated at 0.25 hr; (3) It is estimated that 1,246 terminals conduct recordkeeping quality assurance on 15 occasions per year at 0.02 hr. per review; (4) Other requirements require no hourly burden;

(d) *Truckers who hand blend detergent:* It is estimated that truckers who hand blend detergent might do so on as many as 875 occasions annually, with approximately 0.03 hour per response and 100 total respondents annually for this requirement; (2) Other trucker requirements are customary business practices;

(e) *Retailers and wholesale purchaser-consumers:* It is estimated that retailers and wholesale purchaser-consumers of gasoline who also dispense detergent-exempt aviation fuel or racing fuel will spend 0.55 hrs to label pumps. This is a one-time requirement for a total of 5,000 respondents.

The disaggregated cost estimates for this collection are as follows:

(a) *Additive manufacturers:* (1) It is estimated that the 59 respondents will spend a total of $559,967 in 1996 and $697,882 in 1997 for recordkeeping involving the approximately 382 certifications that will occur initially. This is reduced to $163,060/year in ensuing years since it is estimated that 15 percent of the number of initially certified additives will be certified annually after the program's first year. For certification testing itself, there are no capital costs; most of the additives tested will be tested in-house on existing equipment already used as a customary business practice by these manufacturers. Test costs for 1997 average $242,559 per party for 59 parties, and in 1996 average $210,921 per party for 59 parties. For 1998 and beyond, the cost is estimated to fall to $63,276 per party. These parties will also spend about $4.86 per year for exemption notices and will have a startup cost of about $4.80 in 1996 for a quality assurance program that is otherwise a customary business practice;

(b) *Refiners and importers:* It is estimated that 100 refiners and importers of gasoline will pay $2,564 per year per party for voluntary defense quality assurance;

(c) *Terminals:* The VAR records for terminals are expected to cost each of 1,246 terminals about $2.28 per year beyond customary business practice costs. Calibration requirements are expected to cost each of 1,200 terminals about $13 each beyond customary business practices with a startup cost of $8 per respondent in 1996 for reviewing the changed requirement. Record checks are expected to cost each terminal about $8.00 per year;

(d) *Truckers:* If any truckers hand blend a large number of loads per year, the cost per trucker could be as high as $691 per year. Other costs are customary business practices;

(e) *Retailers and wholesale purchaser-consumers:* It is estimated that retailers and wholesale purchaser-consumers of gasoline who also dispense exempt aviation gas or racing gas will pay about $12.60 in the first year for labelling their pumps and about $1 each year after for the capital cost of purchasing the label.

An Agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations are listed in 40 CFR part 9 and 48 CFR Ch. 15.

Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing the respondent burden, including through the use of automated collection techniques to the Director, Regulatory Information Division, U.S. Environmental Protection Agency (Mail Code 2137), 401 M Street, SW., Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503, marked ''Attention: Desk Officer for EPA.''

Include the ICR number in any correspondence.

D. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Pub. L. 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with ''Federal mandates'' that may result in expenditures to state, local, and tribal governments, in the aggregate, or to the private sector, of $100 million or more for any one year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost effective, or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least costly, most cost effective, or least burdensome alternative if the Administrator publishes with the final rule an explanation of why that alternative was not adopted. Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

Today's rule contains no Federal mandates (under the regulatory provisions of Title II of the UMRA) for State, local, or tribal governments. The rule imposes no enforceable duties on any of these governmental entities. Nothing in the program would significantly or uniquely affect small governments. EPA has determined that this rule contains Federal mandates that will result in expenditures of $100 million or more in any one year for the private sector. EPA believes that the program represents the least costly, most cost-effective approach to achieving the air quality goals of the proposed rule. EPA has performed the required analyses under Executive Order 12866 which contains identical analytical requirements. The reader is directed to Section IX.A., Administrative Designation and Regulatory Analysis, for further information regarding these analyses.

E. Submission to Congress and the General Accounting Office

Under section 801(a)(1)(A) of the Administrative Procedures Act (APA) as amended 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 a ''major rule'' as defined by section 804(2) of the APA as amended.

X. Electronic Copies of Rulemaking Documents

The preamble, the RIA, and regulatory language of this final rule are available in the public docket as described under ''**ADDRESSES**'' above and are also available electronically on the Office of Air Quality Planning and Standards (OAQPS) Technology Transfer network Bulletin Board System (TTNBBS). Instructions for accessing TTNBBS and downloading the relevant files are described below.

A. Technology Transfer Network Bulletin Board System (TTNBBS)

TTNBBS can be accessed using a dial-in telephone line (919–541–5742) and a 1200, 2400, or 9600 bps modem (equipment up to 14.4 Kbps can be accommodated). The parity of the modem should be set to N or none, the data bits to 8, and the stop bits to 1. When first signing on to the bulletin board, the user will be required to answer some basic informational questions to register into the system. After registering, proceed through the following options from a series of menus:

(T) Gateway to TTN Technical Areas (Bulletin Boards)
(M) OMS—Mobile Sources Information
(K) Rulemaking and Reporting
(3) Fuels
(4) Detergent Additives

At this point, the system will list all available files in the chosen category in reverse chronological order with brief descriptions. The following eight ''zip'' files are currently available:

DCA__CFP.ZIP (Preamble to the final rule on the Certification Requirements for Deposit Control Additives)
DCA__CFR.ZIP (Regulatory text for the final rule on the Certification Requirements for Deposit Control Additives)
DCA__RIAA.ZIP (Addendum to the Regulatory Impact Analysis)
DCA__RCN.ZIP (Notice to Reopen the Comment Period)
DCA__RIA.ZIP (Regulatory Impact Analysis)
DCA__1FP.ZIP (Preamble to the final rule on the Interim Requirements for Deposit Control Additives)
DCA__IFR.ZIP (Regulatory text for the final rule on the Interim Requirements for Deposit Control Additives)
DCA__PRE.ZIP (Preamble from the Notice of Proposed Rulemaking)

File information can be obtained from the ''READ.ME'' file. Choose from the following options when prompted:

<D>ownload, <P>rotocol, <E>xamine, <N>ew, <L>ist, <H>elp or <ENTER> to exit.

To download a file, e.g., <D> filename.ZIP, the user needs to choose a file transfer protocol appropriate for the user's computer from the options listed on the terminal. The user's computer is then ready to receive the file by invoking the user's resident file transfer software. Programs and instructions for de-archiving compressed files can be found under <S>ystems Utilities from the top menu, under <A>rchivers/de-archivers. Please note that due to differences between the software used to develop the document and the software into which the document may be downloaded, changes in format, page length, etc. may occur.

TTNBBS is available 24 hours a day, 7 days a week except Monday morning from 8–12 EST, when the system is down for maintenance and backup. For help in accessing the system, call the systems operator at 919–541–5384 in Research Triangle Park, North Carolina, during normal business hours EST.

B. Internet

Rulemaking documents may be found on the internet as follow:

World Wide Web
http://www.epa.gov/omswww
FTP
ftp://ftp.epa.gov Then CD to the /pub/gopher/OMS/ directory
Gopher
gopher://gopher.epa.gov:70/11/Offices/Air/OMS

Alternatively, go to the main EPA gopher, and follow the menus:
gopher.epa.gov
EPA Offices and Regions

Office of Air and Radiation
Office of Mobile Sources

List of Subjects in 40 CFR Part 80

Environmental protection, Fuel additives, Gasoline detergent additives, Gasoline, Incorporation by reference, Motor vehicle pollution, Penalties, Reporting and recordkeeping requirements.

Dated: June 21, 1996.

Carol M. Browner,

Administrator.

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

PART 80—[AMENDED]

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

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

2. Section 80.4 is revised to read as follows:

§ 80.4 Right of entry; tests and inspections.

The Administrator or his authorized representative, upon presentation of appropriate credentials, shall have a right to enter upon or through any refinery, retail outlet, wholesale purchaser-consumer facility, or detergent manufacturer facility; or the premises or property of any gasoline or detergent distributor, carrier, or importer; or any place where gasoline or detergent is stored; and shall have the right to make inspections, take samples, obtain information and records, and conduct tests to determine compliance with the requirements of this part.

3–4. Section 80.140 is amended by revising the definition of ''Detergent Blender'' and by adding definitions for ''Leaded Gasoline'' and ''Repeatability'', in alphabetical order, to read as follows:

§ 80.140 Definitions.

* * * * *

Detergent blender means any person who owns, leases, operates, controls or supervises the blending operation of a detergent blending facility, or imports detergent-additized gasoline or detergent-additized post-refinery component.

* * * * *

Leaded gasoline means gasoline which is produced with the use of any lead additive or which contains more than 0.05 gram of lead per gallon or more than 0.005 gram of phosphorus per gallon.

* * * * *

Repeatability of a test method means the amount of random error which is expected to affect the results obtained for a given test substance, when the test is replicated by a single operator in a given laboratory within a short period of time, using the same apparatus under constant operating conditions. Quantitatively, it is the difference between two such single results that would be exceeded in the long run in only one out of twenty normal and correct replications of the test method.

* * * * *

5. Section 80.141 is amended as follows:

a. Paragraphs (a) and (b), the second sentence of paragraph (c)(1)(i), paragraphs (c)(1)(ii), (c)(2), (c)(3)(i), (d), and (e)(1), the first sentence of paragraph (e)(2)(ii)(B), and the last sentence of paragraph (g)(3) are revised.

b. Paragraph (c)(3)(iv) is added.

c. Paragraph (e)(2)(ii)(B)(*1*)(*iii*) is removed and reserved.

d. In paragraph (g)(1), the reference to paragraph (d)(2)(ii)(B) is revised to (d)(3)(ii).

§ 80.141 Interim detergent gasoline program.

(a) *Effective dates of requirements.* (1) Until June 30, 1997, the products listed in paragraphs (a)(1)(i) through (iii) of this section must comply with either the interim program requirements described in this section or the certification program requirements described in § 80.161. Beginning July 1, 1997, the listed products must comply with the requirements in § 80.161. These dates and requirements apply to:

(i) All gasoline sold or transferred to a party who sells or transfers gasoline to the ultimate consumer;

(ii) All additized post-refinery component (PRC); and

(iii) All detergent additives sold or transferred for use in gasoline or PRC for compliance with the requirements of this subpart.

(2) Until July 31, 1997, all gasoline sold or transferred to the ultimate consumer must contain detergent additive(s) meeting either the interim requirements of this § 80.141 or the certification program requirements of § 80.161. Beginning August 1, 1997, such gasoline must contain detergent additive(s) meeting the certification requirements of § 80.161.

(b) *Applicability of gasoline and PRC detergency requirement; responsible parties.* (1) Except as specifically exempted in § 80.160, the detergency requirements of this subpart apply to all gasoline, whether intended for on-highway or nonroad use, including conventional, reformulated, oxygenated, and leaded gasolines, as well as the gasoline component of fuel mixtures of gasoline and alcohol fuels, gasoline used as marine fuel, gasoline service accumulation fuel (as described in § 86.113–94(a)(1) of this chapter), the gasoline component of fuel mixtures of gasoline and methanol used for service accumulation in flexible fuel vehicles (as described in § 86.113–94(d) of this chapter), gasoline used for factory fill purposes, and all additized PRC.

(2) Pursuant to paragraphs (c) through (f) of this section, compliance with these requirements is the responsibility of parties who directly or indirectly sell or dispense gasoline to the ultimate consumer as well as parties who manufacture, supply, or transfer detergent additives or detergent-additized post-refinery components.

(c) * * *

(1) * * *

(i) * * * Polymeric components may be reported as the product of other chemical reactants, provided that the supporting data specified in § 80.162(b) is also reported for such components.

(ii) The weight and/or volume percent (as applicable) of each component of the package, with variability in these amounts restricted according to the provisions of paragraph (c)(2) of this section.

* * * * *

(2) *Allowable variation in compositional data.* (i) A single detergent additive registration may contain no variation in the identity of any of the detergent-active components identified pursuant to paragraph (c)(1)(iii) of this section.

(ii) A single detergent additive registration may specify a range of concentrations for identified detergent-active components, provided that, if each such component were present in the detergent additive package at the lower bound of its reported range of concentration, the minimum recommended concentration reported in accordance with the requirements of paragraph (c)(3) of this section would still provide the deposit control effectiveness claimed by the detergent registrant.

(iii) The identity or concentration of non-detergent-active components of the detergent additive package may vary under a single registration, provided that the range of such variation is specified in the registration, and that such variability does not reduce the deposit control effectiveness of the additive package as compared with the level of effectiveness claimed by the detergent registrant pursuant to the requirements of paragraph (c)(3) of this section.

(iv) Except as provided in paragraph (c)(2)(v) of this section, detergent additive packages which do not satisfy these restrictions must be separately registered. EPA may disqualify an additive for use in satisfying the requirements of this subpart if EPA determines that the variability included within a given detergent additive registration may reduce the deposit control effectiveness of the detergent package such that it could invalidate the minimum recommended concentration reported in accordance with the requirements of paragraph (c)(3) of this section.

(v) A change in minimum concentration requirements resulting from a modification of detergent additive composition shall not require a new detergent additive registration or a change in existing registration if:

(A) The modification is effected by a detergent blender only for its own use or for the use of parties which are subsidiaries of, or share common ownership with, the blender, and the modified detergent is not sold or transferred to other parties; and

(B) The modification is a dilution of the additive for the purpose of ensuring proper detergent flow in cold weather; and

(C) Gasoline is the only diluting agent used; and

(D) The diluted detergent is subsequently added to gasoline at a rate that attains the detergent's registered minimum recommended concentration, taking into account the dilution; and

(E) EPA is notified, either before or within seven days after the dilution action, of the identity of the detergent, the identity of the diluting material, the amount or percentage of the dilution, the change in treat rate necessitated by the dilution, and the locations and time period of diluted detergent usage. The notification shall be sent or faxed to the address in § 80.174(c).

(3) * * *

(i) The lower boundary of the recommended range of concentration for the detergent additive package in gasoline, which the additive manufacturer must report pursuant to the registration requirements in § 79.21(d) of this chapter, must equal or exceed the minimum concentration which the manufacturer has determined to be necessary for the control of deposits in the associated fuel type, pursuant to paragraph (e) of this section. The minimum recommended concentration shall be provided to EPA in units of gallons of detergent additive package per thousand gallons of gasoline or PRC, reported to four digits. This concentration is the lowest additive concentration (LAC) referred to elsewhere in this subpart.

* * * * *

(iv) Once included in the registration for a detergent additive package, the minimum concentration recommended by the detergent manufacturer to detergent blenders and other users of the detergent additive, pursuant to paragraph (c)(3)(ii) of this section, may not be changed without first notifying EPA. The notification must be sent by certified mail to the address specified in § 80.174(b). Changes to the minimum recommended concentration must be supported by available test data pursuant to paragraph (c)(3)(iii) of this section.

(d) The rate at which a detergent blender treats gasoline with a detergent additive package must be no less than the minimum recommended concentration reported for the subject detergent additive pursuant to paragraph (c)(3) of this section, except under the following conditions:

(1) If a detergent blender believes that the minimum treat rate recommended by the manufacturer of a detergent additive exceeds the amount of detergent actually required for effective deposit control, and possesses substantiating data consistent with the guidelines in paragraph (e) of this section, then, upon informing EPA in writing of these circumstances, the detergent blender may use the detergent at a lower concentration.

(2) The notification to EPA must clearly specify the name of the detergent product and its manufacturer, the concentration recommended by the detergent manufacturer, and the lower concentration which the detergent blender intends to use. The notification must also attest that data are available to substantiate the deposit control effectiveness of the detergent at the intended lower concentration. The notification must be sent by certified mail to the address specified in § 80.174(b).

(3) At its discretion, EPA may require that the detergent blender submit the test data purported to substantiate the claimed effectiveness of the lower concentration of the detergent additive. EPA may also require the manufacturer of the subject detergent additive to submit test data substantiating the minimum recommended concentration specified in the detergent additive registration. In either case, EPA will send a letter to the appropriate party, and the supporting data will be due to EPA within 30 days of receipt of EPA's letter.

(i) If the detergent blender fails to submit the required supporting data to EPA in the allotted time period, or if EPA judges the submitted data to be inadequate to support the detergent blender's claim that the lower concentration provides a level of deposit control consistent with the requirements of this section, then EPA will disapprove the use of the detergent at the lower concentration. Further, the detergent blender may be subject to applicable liabilities and penalties pursuant to §§ 80.156 and 80.159 for any gasoline or PRC it has additized at the lower concentration.

(ii) If the detergent manufacturer fails to submit the required test data to EPA within the allotted time period, EPA will proceed on the assumption that data are not available to substantiate the minimum recommended concentration specified in the detergent registration, and the subject additive may be disqualified for use in complying with the requirements of this subpart, pursuant to the procedures in paragraph (g) of this section. The detergent manufacturer may also be subject to applicable liabilities and penalties pursuant to §§ 80.156 and 80.159.

(iii) If both parties submit the required information, EPA will evaluate the quality and results of both sets of test data in relation to each other and to industry-consensus test practices and standards, in a manner consistent with the guidelines described in paragraph (e) of this section. EPA will approve or disapprove the use of the detergent at the lower concentration, and will inform both the detergent blender and the detergent manufacturer of the results of its analysis within 60 days of receipt of both sets of data.

(e) * * *

(1) *CARB-based supporting test data.* For detergent additives which are certified by the California Air Resources Board (CARB) for use in the state of California (pursuant to Title 13, section 2257 of the California Code of Regulations), the CARB certification data constitutes adequate support of the detergent's effectiveness under this section, with the exception that CARB detergent certification data specific to California Phase II reformulated gasoline (pursuant to Title 13, Chapter 5, Article 1, Subarticle 2, California Code of Regulations, Standards for Gasoline Sold Beginning March 1, 1996) will not be considered adequate support for detergent effectiveness in gasolines that do not conform to the compositional specifications for California's Phase II reformulated gasoline. For CARB-based supporting data to be used to demonstrate detergent performance, the minimum recommended concentration reported in

the detergent additive registration must be no less than the concentration of the detergent-active components reported in the subject CARB detergent certification.

(2) * * *

(ii) * * *

(B) For demonstration of fuel injector and intake valve deposit control performance, the tests specified in §§ 80.165, or other vehicle-based tests using generally accepted industry procedures and standards, are preferred.* * *

* * * * *

(g) * * *

(3) * * * All correspondence regarding a disqualification must be sent to the address specified in § 80.174(b).

* * * * *

6. Section 80.155 is revised to read as follows:

§ 80.155 Interim detergent program controls and prohibitions.

(a)(1) No person shall sell, offer for sale, dispense, supply, offer for supply, transport, or cause the transportation of gasoline to the ultimate consumer for use in motor vehicles or in any off-road engines (except as provided in § 80.160), or to a gasoline retailer or wholesale purchaser-consumer, and no person shall detergent-additize gasoline, unless such gasoline is additized in conformity with the requirements of § 80.141. No person shall cause the presence of any gasoline in the gasoline distribution system unless such gasoline is additized in conformity with the requirements of § 80.141.

(2) Gasoline has been additized in conformity with the requirements of § 80.141 when the detergent component satisfies the requirements of § 80.141 and when:

(i) The gasoline has been additized in conformity with the detergent composition and purpose-in-use specifications of an applicable detergent registered under 40 CFR part 79, and in accordance with at least the minimum concentration specifications of that detergent as registered under 40 CFR part 79 or as otherwise provided under § 80.141(d); or

(ii) The gasoline is composed of two or more commingled gasolines and each component gasoline has been additized in conformity with the detergent composition and purpose-in-use specifications of a detergent registered under 40 CFR part 79, and in accordance with at least the minimum concentration specifications of that detergent as registered under 40 CFR part 79 or as otherwise provided under § 80.141(d); or

(iii) The gasoline is composed of a gasoline commingled with a post-refinery component (PRC), and both of these components have been additized in conformity with the detergent composition and use specifications of a detergent registered under 40 CFR part 79, and in accordance with at least the minimum concentration specifications of that detergent as registered under 40 CFR part 79 or as otherwise provided under § 80.141(d).

(b) No person shall blend detergent into gasoline or PRC unless such person complies with the volumetric additive reconciliation requirements of § 80.157.

(c) No person shall sell, offer for sale, dispense, supply, offer for supply, store, transport, or cause the transportation of any gasoline, detergent, or detergent-additized PRC unless the product transfer document for the gasoline, detergent or detergent-additized PRC complies with the requirements of § 80.158.

(d) No person shall refine, import, manufacture, sell, offer for sale, dispense, supply, offer for supply, store, transport, or cause the transportation of any detergent that is to be used as a component of detergent-additized gasoline or detergent-additized PRC, unless such detergent conforms with the composition specifications of a detergent registered under 40 CFR part 79 and the detergent otherwise complies with the requirements of § 80.141. No person shall cause the presence of any detergent in the detergent, PRC, or gasoline distribution systems unless such detergent complies with the requirements of § 80.141.

(e)(1) No person shall sell, offer for sale, dispense, supply, offer for supply, transport, or cause the transportation of detergent-additized PRC, unless the PRC has been additized in conformity with the requirements of § 80.141. No person shall cause the presence in the PRC or gasoline distribution systems of any detergent-additized PRC that fails to conform to the requirements of § 80.141.

(2) PRC has been additized in conformity with the requirements of § 80.141 when the detergent component satisfies the requirements of § 80.141 and:

(i) The PRC has been additized in accordance with the detergent composition and use specifications of a detergent registered under 40 CFR part 79, and in accordance with at least the minimum concentration specifications of that detergent as registered under 40 CFR part 79 or as otherwise provided under § 80.141(d); or

(ii) The PRC is composed of two or more commingled PRCs, and each component has been additized in accordance with the detergent composition and use specifications of a detergent registered under 49 CFR part 79, and in accordance with at least the minimum concentration specifications of that detergent as registered under 40 CFR part 79 or as otherwise provided under § 80.141(d).

7. Section 80.156 is amended by revising paragraphs (a)(1)(ii), (a)(2), introductory text, (a)(2)(ii), (a)(3), introductory text, (a)(3)(ii), (a)(4), (a)(5), introductory text, (c)(1), introductory text, (c)(1)(i), (c)(3), (c)(4), and by adding paragraphs (c)(5) through (c)(8) to read as follows:

§ 80.156 Liability for violations of the interim detergent program controls and prohibitions.

(a) * * *

(1) * * *

(ii) Each gasoline refiner, importer, distributor, reseller, retailer, wholesale purchaser-consumer, oxygenate blender, detergent manufacturer, distributor, or blender, who refined, imported, manufactured, sold, offered for sale, dispensed, supplied, offered for supply, stored, detergent additized, transported, or caused the transportation of the detergent-additized gasoline (or the base gasoline component, the detergent component, or the detergent-additized post-refinery component of the gasoline) that is in violation, and each such party that caused the gasoline that is in violation to be present in the gasoline distribution system; and

* * * * *

(2) *Post-refinery component non-conformity.* Where detergent-additized PRC contained in any storage tank at any facility owned, leased, operated, controlled or supervised by any gasoline refiner, importer, carrier, distributor, reseller, retailer, wholesale purchaser-consumer, oxygenate blender, detergent manufacturer, carrier, distributor, or blender, is found in violation of the prohibitions specified in § 80.155(e), the following persons shall be deemed in violation:

(i) * * *

(ii) Each gasoline refiner, importer, distributor, reseller, retailer, wholesale-purchaser consumer, oxygenate blender, detergent manufacturer, distributor, or blender, who sold, offered for sale, dispensed, supplied, offered for supply, stored, detergent additized, transported, or caused the transportation of the detergent-additized PRC (or the detergent component of the PRC) that is in violation, and each such party that caused the PRC that is in violation to be present in the PRC or gasoline distribution systems; and

* * * * *

(3) *Detergent non-conformity.* Where the detergent (prior to additization)

contained in any storage tank or container found at any facility owned, leased, operated, controlled or supervised by any gasoline refiner, importer, carrier, distributor, reseller, retailer, wholesale purchaser-consumer, oxygenate blender, detergent manufacturer, carrier, distributor, or blender, is found in violation of the prohibitions specified in § 80.155(d), the following persons shall be deemed in violation:

(i) * * *

(ii) Each gasoline refiner, importer, distributor, reseller, retailer, wholesale purchaser-consumer, oxygenate blender, detergent manufacturer, distributor, or blender, who sold, offered for sale, dispensed, supplied, offered for supply, stored, transported, or caused the transportation of the detergent that is in violation, and each such party that caused the detergent that is in violation to be present in the detergent, gasoline, or PRC distribution systems; and

* * * * *

(4) *Volumetric additive reconciliation.* Where a violation of the volumetric additive reconciliation requirements established by § 80.155(b) has occurred, the following persons shall be deemed in violation:

(i) Each detergent blender who owns, leases, operates, controls or supervises the facility (including, but not limited to, a truck or individual storage tank) where the violation has occurred; and

(ii) Each gasoline refiner, importer, carrier, distributor, reseller, retailer, wholesale purchaser-consumer, or oxygenate blender, and each detergent manufacturer, carrier, distributor, or blender, who refined, imported, manufactured, sold, offered for sale, dispensed, supplied, offered for supply, stored, transported, or caused the transportation of the detergent-additized gasoline, the base gasoline component, the detergent component, or the detergent-additized post-refinery component, of the gasoline that is in violation, provided that the EPA demonstrates, by reasonably specific showings by direct or circumstantial evidence, that such person caused the violation.

(5) *Product transfer document.* Where a violation of § 80.155(c) is found at a facility owned, leased, operated, controlled, or supervised by any gasoline refiner, importer, carrier, distributor, reseller, retailer, wholesale purchaser-consumer, oxygenate blender, detergent manufacturer, carrier, distributor, or blender, the following persons shall be deemed in violation:

* * * * *

(c) *Defenses.* (1) In any case in which a gasoline refiner, importer, distributor, carrier, reseller, retailer, wholesale-purchaser consumer, oxygenate blender, detergent distributor, carrier, or blender, is in violation of any of the prohibitions of § 80.155, pursuant to paragraphs (a) or (b) of this section as applicable, the regulated party shall be deemed not in violation if it can demonstrate:

(i) That the violation was not caused by the regulated party or its employee or agent (unless otherwise provided in this paragraph (c));

* * * * *

(3) *Detergent blender.* In any case in which a detergent blender is liable for violating any of the prohibitions of § 80.155, the detergent blender shall not be deemed in violation if it can demonstrate, in addition to the defense requirements stated in paragraph (c)(1) of this section, the following:

(i) That it obtained or supplied, as appropriate, prior to the detergent blending, accurate written instructions from the detergent manufacturer or other party with knowledge of such instructions, specifying the detergent's minimum recommended concentration (lowest additive concentration) pursuant to § 80.141(c)(3) and, if applicable, the limitations of this concentration for use in leaded product.

(ii) That it has implemented a quality assurance program that includes, but is not limited to, a periodic review of its supporting product transfer and volume measurement documents to confirm the correctness of its product transfer and volumetric additive reconciliation documents created for all products it additized.

(4) *Detergent manufacturer*—(i) *Presumptive liability affirmative defense.* Notwithstanding the provisions of paragraph (c)(1) of this section, in any case in which a detergent manufacturer is liable for violating any of the prohibitions of § 80.155, the detergent manufacturer shall be deemed not in violation if it can demonstrate each of the following:

(A) Product transfer documents which account for the detergent component of the product in violation and which indicate that such detergent satisfied all relevant requirements when it left the detergent manufacturer's control; and

(B) Written blending instructions which, pursuant to § 80.141(c)(3)(ii), were supplied by the detergent manufacturer to its customer who purchased or obtained from the manufacturer the detergent component of the product determined to be in violation. The written blending instructions must have been supplied by the manufacturer prior to the customer's use or sale of the detergent. The instructions must accurately identify the minimum recommended concentration (lowest additive concentration) specified in the detergent's 40 CFR part 79 registration, and must also accurately identify if the detergent, at that concentration, is only registered as effective for use in leaded gasoline.

(C) If the detergent batch used in the noncomplying product was produced less than one year before the manufacturer was notified by EPA of the possible violation, then the manufacturer must provide FTIR or other test results for the batch of detergent used in the noncomplying product, performed in accordance with the detergent testing procedure submitted by the manufacturer, or available for submission, pursuant to § 80.141(f).

(*1*) The analysis may have been conducted on the subject detergent batch at the time it was manufactured, or may be conducted on a sample of that batch which the manufacturer retained for such purpose at the time the batch was manufactured.

(*2*) The test results must accurately establish that, when it left the manufacturer's control, the detergent component of the product determined to be in violation was in conformity with the chemical composition and concentration specifications reported pursuant to § 80.141(c)(1);

(D) If the detergent batch used in the noncomplying product was produced more than one year prior to the manufacturer's notification by EPA of the possible violation, then the manufacturer must provide either:

(*1*) Test results for the batch in question as specified in the paragraph (c)(4)(i)(C) of this section; or

(*2*) The following materials:

(*i*) Documentation of the measured viscosity, density, and basic nitrogen content of the detergent batch in question, or any other such physical parameters which the manufacturer normally uses to ensure production quality control, which establishes conformity with the manufacturer's quality control standards for such parameters; and

(*ii*) If the detergent registration identifies polymeric component(s) of the detergent package as the product(s) of other chemical reactants, documentation that the reagents used to synthesize the detergent batch in question were the same as those specified in the registration and that they met the manufacturer's normal acceptance criteria for such reagents, reported pursuant to § 80.162(b)(1).

(ii) *Detergent manufacturer causation liability.* In any case in which a detergent manufacturer is liable for a violation of § 80.155, and the manufacturer establishes an affirmative defense to such liability pursuant to paragraph (c)(4)(i) of this section, the detergent manufacturer will nonetheless be deemed liable for the violation of § 80.155 if EPA can demonstrate, by reasonably specific showings by direct or circumstantial evidence, that the detergent manufacturer caused the violation.

(5) *Defense against liability where more than one party may be liable for VAR violations.* In any case in which a party is presumptively or vicariously liable for a violation of § 80.155 due to a failure to meet the VAR requirements § 80.157, except for the VAR record requirements pursuant to § 80.157(g), such party shall not be deemed liable if it can establish the following:

(i) Prior to the violation it had entered into a written contract with another potentially liable detergent blender party (''the assuming party''), under which that other party assumed legal responsibility for fulfilling the VAR requirement that had been violated;

(ii) The contract included reasonable oversight provisions to ensure that the assuming party fulfilled its VAR responsibilities (including, but not limited to, periodic review of VAR records) and the oversight provision was actually implemented by the party raising the defense;

(iii) The assuming party is fiscally sound and able to pay its penalty for the VAR violation; and

(iv) The employees or agents of the party raising the defense did not cause the violation.

(6) *Defense to liability for gasoline non-conformity violations caused solely by the addition of misadditized ethanol or other PRC to the gasoline.* In any case in which a party is presumptively or vicariously liable for a gasoline non-conformity violation of § 80.155(a) caused solely by another party's addition of misadditized ethanol or other PRC to the gasoline, the former party shall not be deemed liable for the violation provided that it can establish that is has fulfilled the requirements of paragraphs (c)(1)(i) and (ii) of this section.

(7) *Detergent tank transitioning defenses.* The commingling of two detergents in the same detergent storage tank will not be deemed to violate or cause violations of any of the provisions of this subpart, provided the following conditions are met:

(i) The commingling must occur during a legitimate detergent transitioning event, *i.e.*, a shift from the use of one detergent to another through the delivery of the new detergent into the same tank that contains the original detergent; and

(ii) If the new detergent is restricted to use in leaded gasoline, then such restriction must be applied to the combined detergents; and

(iii) The commingling event must be documented, either on the VAR formula record or on attached supporting records; and

(iv) Notwithstanding any contrary provisions in § 80.157, a VAR formula record must be created for the combined detergents. The VAR compliance period must begin no later than the time of the commingling event. However, at the blender's option, the compliance period may begin earlier, thus including use of the uncombined original detergent within the same period, provided that the 31-day limitation pursuant to § 80.157(a)(6) is not exceeded; and

(v) The VAR formula record must also satisfy the requirements in one of the following paragraphs (c)(7)(v)(A) through (C) of this section, whichever applies to the commingling event. If neither paragraph (c)(7)(v)(A) nor (B) of this section initially applies, then the blender may drain and subsequently redeliver the original detergent into the tank in restricted amounts, in order to meet the conditions of paragraph (c)(7)(v)(A) or (B) of this section. Otherwise, the blender must comply with paragraph (c)(7)(v)(C) of this section.

(A) If both detergents have the same LAC, and the original detergent accounts for no more than 20 percent of the tank's total delivered volume after addition of the new detergent, then the VAR formula record is required to identify only the use of the new detergent.

(B) If the two detergents have different LACs and the original detergent accounts for 10 percent or less of the tank's total delivered volume after addition of the new detergent, then the VAR formula record is required to identify only the use of the new detergent, and must attain the LAC of the new detergent. If the original detergent's LAC is greater than that of the new detergent, then the compliance period may begin earlier than the date of the commingling event (pursuant to paragraph (c)(7)(iv) of this section) only if the original detergent does not exceed 10 percent of the total detergent used during the compliance period.

(C) If neither of the preceding paragraphs (c)(7)(v)(A) or (B) of this section applies, then the VAR formula record must identify both of the commingled detergents, and must use and attain the higher LAC of the two detergents. Once the commingled detergent has been depleted by an amount equal to the volume of the original detergent in the tank at the time the new detergent was added, subsequent VAR formula records must identify and use the LAC of only the new detergent.

(8) *Defense to liability for noncompliance with leaded-only use restrictions.* A party shall not be deemed liable for violations of § 80.155(a) or (e) caused solely by the additization or use of gasoline or PRC in violation of leaded-only use restrictions, provided that the conditions specified in § 80.169(c)(9) are met.

8. Section 80.157 is amended by revising the introductory text and paragraphs (a) and (b), by revising paragraphs (d), (e), and (f) and redesignating them as paragraphs (e), (f), and (g), and by adding a new paragraph (d), to read as follows:

§ 80.157 Volumetric additive reconciliation (VAR), equipment calibration, and recordkeeping requirements under the interim detergent program.

This section contains requirements for automated detergent blending facilities and hand-blending detergent facilities. All gasolines and all PRC intended for use in gasoline must be additized, unless otherwise noted in supporting VAR records, and must be accounted for in VAR records. The VAR reconciliation standard is attained under this section when the actual concentration of detergent used per VAR formula record equals or exceeds the lowest additive concentration (LAC) specified for that detergent pursuant to § 80.141(c)(3), or, if appropriate, under § 80.141(d). A separate VAR formula record must be created for leaded gasoline additized with a detergent registered for use only with leaded gasoline, or used at a concentration that is registered as effective for leaded gasoline only. Detergent so used must be accurately and separately measured, either through the use of a separate storage tank, a separate meter, or some other measurement system that is able to accurately distinguish its use. Recorded volumes of gasoline, detergent, and PRC must be expressed to the nearest gallon (or smaller units), except that detergent volumes of five gallons or less must be expressed to the nearest tenth of a gallon (or smaller units). However, if the blender's equipment cannot accurately measure to the nearest tenth of a gallon, then such volumes must be rounded downward to the next lower gallon. PRC included in the reconciliation must be

identified. Each VAR formula record must also contain the following information:

(a) *Automated blending facilities.* In the case of an automated detergent blending facility, for each VAR period, for each detergent storage system and each detergent in that storage system, the following must be recorded:

(1) The manufacturer and commercial identifying name of the detergent additive package being reconciled, and the LAC specified in the detergent registration for use with the applicable type of gasoline (i.e., unleaded or leaded). The LAC must be expressed in terms of gallons of detergent per thousand gallons of gasoline or PRC, and expressed to four digits. If the specified LAC is only effective for use with leaded gasoline, the record must so indicate. If the detergent storage system which is the subject of the VAR formula record is a proprietary system under the control of a customer, this fact must be indicated on the record.

(2) The total volume of detergent blended into gasoline and PRC, in accordance with one of the following paragraphs, as applicable.

(i) For a facility which uses in-line meters to measure detergent usage, the total volume of detergent measured, together with supporting data which includes one of the following: the beginning and ending meter readings for each meter being measured, the metered batch volume measurements for each meter being measured, or other comparable metered measurements. The supporting data may be supplied on the VAR formula record or in the form of computer printouts or other comparable VAR supporting documentation.

(ii) For a facility which uses a gauge to measure the inventory of the detergent storage tank, the total volume of detergent shall be calculated from the following equation:

Detergent Volume=(A) − (B)+(C) − (D)

Where:

A=Initial detergent inventory of the tank
B=Final detergent inventory of the tank
C=Sum of any additions to detergent inventory
D=Sum of any withdrawals from detergent inventory for purposes other than the additization of gasoline or PRC.

The value of each variable in this equation must be separately recorded on the VAR formula record. In addition, a list of each detergent addition included in variable C and a list of each detergent withdrawal included in variable D must be provided, either on the formula record or as VAR supporting documentation.

(3) The total volume of gasoline plus PRC to which detergent has been added, together with supporting data which includes one of the following: The beginning and ending meter measurements for each meter being measured, the metered batch volume measurements for each meter being measured, or other comparable metered measurements. The supporting data may be supplied on the VAR formula record or in the form of computer printouts or other comparable VAR supporting documentation. If gasoline has intentionally been overadditized in anticipation of the later addition of unadditized PRC, then the total volume of gasoline plus PRC recorded must include the expected amount of unadditized PRC to be added later. In addition, the amount of gasoline which was overadditized for this purpose must be specified.

(4) The actual detergent concentration, calculated as the total volume of detergent added (pursuant to paragraph (a)(2) of this section), divided by the total volume of gasoline plus PRC (pursuant to paragraph (a)(3) of this section). The concentration must be calculated and recorded to four digits.

(5) A list of each detergent concentration rate initially set for the detergent that is the subject of the VAR record, together with the date and description of each adjustment to any initially set concentration. The concentration adjustment information may be supplied on the VAR formula record or in the form of computer printouts or other comparable VAR supporting documentation. No concentration setting is permitted below the applicable LAC, except as may be modified pursuant to § 80.141(d) or as described in paragraph (a)(7) of this section.

(6) The dates of the VAR period, which shall be no longer than thirty-one days. If the VAR period is contemporaneous with a calendar month, then specifying the month will fulfill this requirement; if not, then the beginning and ending dates and times of the VAR period must be listed. The times may be supplied on the VAR formula record or in supporting documentation. Any adjustment to any detergent concentration rate more than 10 percent over the concentration rate initially set in the VAR period shall terminate that VAR period and initiate a new VAR period, except as provided in paragraph (a)(7) of this section.

(7) The concentration setting for a detergent injector may be set below the applicable LAC, or it may be adjusted more than 10 percent above the concentration initially set in the VAR period without terminating that VAR period, provided that:

(i) The purpose of the change is to correct a batch misadditization prior to the end of the VAR period and prior to the transfer of the batch to another party, or to correct an equipment malfunction; and

(ii) The concentration is immediately returned after the correction to a concentration that fulfills the requirements of paragraphs (a)(5) and (6) of this section; and

(iii) The blender creates and maintains documentation establishing the date and adjustments of the correction; and

(iv) If the correction is initiated only to rectify an equipment malfunction, and the amount of detergent used in this procedure is not added to gasoline in the compliance period, then this amount is subtracted from the detergent volume listed on the VAR formula record.

(8) If unadditized gasoline has been transferred from the facility, other than bulk transfers from refineries or pipelines to non-retail outlets or non-WPC facilities, the total amount of such gasoline must be specified.

(b) *Non-automated facilities.* In the case of a facility in which hand blending or any other non-automated method is used to blend detergent, for each detergent and for each batch of gasoline and each batch of PRC to which the detergent is being added, the following shall be recorded:

(1) The manufacturer and commercial identifying name of the detergent additive package being reconciled, and the LAC specified in the detergent registration for use with the applicable type of gasoline (i.e., unleaded or leaded). The LAC must be expressed in terms of gallons of detergent per thousand gallons of gasoline or PRC, and expressed to four digits. If the specified LAC is only effective for use with leaded gasoline, the record must so indicate.

(2) The date of the additization that is the subject of the VAR formula record.

(3) The volume of added detergent.

(4) The volume of the gasoline and/or PRC to which the detergent has been added. If gasoline has intentionally been overadditized in anticipation of the later addition of unadditized PRC, then the total volume of gasoline plus PRC recorded must include the expected amount of unadditized PRC to be added later. In addition, the amount of gasoline which was overadditized for this purpose must be specified.

(5) The brand (if known), grade, and leaded/unleaded status of gasoline, and/or the type of PRC.

(6) The actual detergent concentration, calculated as the volume of added detergent (pursuant to paragraph (b)(3) of this section), divided by the volume of gasoline and/or PRC (pursuant to paragraph (b)(4) of this section). The concentration must be calculated and recorded to four digits.

* * * * *

(d) *Electronically-generated VAR formula and supporting records.* (1) Electronically-generated records are acceptable for VAR formula records and supporting documentation (including PTDs), provided that they are complete, accessible, and easily readable. VAR formula records must also be stored with access and audit security, which must restrict to a limited number of specified people those who have the ability to alter or delete the records. In addition, parties maintaining records electronically must make available for EPA use the hardware and software necessary to review the records.

(2) Electronically-generated VAR formula records may use an electronic user identification code to satisfy the signature requirements of paragraph (c)(1) of this section, provided that:

(i) The use of the ID is limited to the record creator; and

(ii) A paper record is maintained, which is signed and dated by the VAR formula record creator, acknowledging that the use of that particular user ID on a VAR formula record is equivalent to his/her signature on the document.

(e) Automated detergent blenders must calibrate their detergent equipment once in each calendar half year, with the acceptable calibrations being no less than one hundred twenty days apart. Equipment recalibration is also required each time the detergent package is changed, unless written documentation indicates that the new detergent package has the same viscosity as the previous detergent package. Detergent package change calibrations may be used to satisfy the semiannual requirement provided that the calibrations occur in the appropriate half calendar year and are no less than one hundred twenty days apart.

(f) The following VAR supporting documentation must also be created and maintained:

(1) For all automated detergent blending facilities, documentation reflecting performance of the calibrations required by paragraph (e) of this section, and any associated adjustments of the automated detergent equipment;

(2) For all hand-blending facilities which are terminals, a record specifying, for each calendar month, the total volume in gallons of transfers from the facility of unadditized base gasoline;

(3) For all detergent blending facilities, product transfer documents for all gasoline, detergent and detergent-additized PRC transferred into or out of the facility; in addition, bills of lading, transfer, or sale for all unadditized PRC transferred into the facility;

(4) For all automated detergent blending facilities, documentation establishing the brands (if known) and grades of the gasoline which is the subject of the VAR formula record;

(5) For all hand blending detergent blenders, the documentation, if in the party's possession, supporting the volumes of gasoline, PRC, and detergent reported on the VAR formula record; and

(6) For all detergent blending facilities, documentation establishing the curing of a batch or amount of misadditized gasoline or PRC, or the curing of a use restriction on the additized gasoline or PRC, and providing at least the following information: the date of the curing procedure; the problem that was corrected; the amount, name, and LAC of the original detergent used; the amount, name, and LAC of the added curing detergent; and the actual detergent concentration attained in, and the volume of, the total cured product.

(g) *Document retention and availability.* All detergent blenders shall retain the documents required under this section for a period of five years from the date the VAR formula records and supporting documentation were created, and shall deliver them upon request to the EPA Administrator or the Administrator's authorized representative.

(1) Except as provided in paragraph (g)(3) of this section, automated detergent blender facilities and hand-blender facilities which are terminals, which physically blend detergent into gasoline, must make immediately available to EPA, upon request, the preceding twelve months of VAR formula records plus the preceding two months of VAR supporting documentation.

(2) Except as provided in paragraph (g)(3) of this section, other hand-blending detergent facilities which physically blend detergent into gasoline must make immediately available to EPA, upon request, the preceding two months of VAR formula records and VAR supporting documentation.

(3) Facilities which have centrally maintained records at other locations, or have customers who maintain their own records at other locations for their proprietary detergent systems, and which can document this fact to the Agency, may have until the start of the next business day after the request to supply VAR supporting documentation, or longer if approved by the Agency.

(4) In this paragraph (g) of this section, the term immediately available means that the records must be provided, electronically or otherwise, within approximately one hour of EPA's request, or within a longer time frame as approved by EPA.

9. Section 80.158 is revised to read as follows:

§ 80.158 Product transfer documents (PTDs).

(a) *Contents.* For each occasion when any gasoline refiner, importer, reseller, distributor, carrier, retailer, wholesale purchaser-consumer, oxygenate blender, detergent manufacturer, distributor, carrier, or blender, transfers custody or title to any gasoline, detergent, or detergent-additized PRC other than when detergent-additized gasoline is sold or dispensed at a retail outlet or wholesale purchaser-consumer facility to the ultimate consumer, the transferor shall provide to the transferee, and the transferee shall acquire from the transferor, documents which accurately include the following information:

(1) The names and addresses of the transferee and transferor; the address requirement may be fulfilled, in the alternative, through separate documentation which establishes said addresses and is maintained by the parties and made available to EPA for the same length of time as required for the PTDs, provided that the normal business procedure of these parties is not to identify addresses on PTDs.

(2) The date of the transfer.

(3) The volume of product transferred.

(4)(i) The identity of the product being transferred (i.e., its identity as base gasoline, detergent, detergent-additized gasoline, or specified detergent-additized oxygenate or detergent-additized gasoline blending stock that comprises a detergent-additized PRC). PTDs for detergent-additized gasoline or PRC are not required to identify the particular detergent used to additize the product.

(ii) If the product being transferred consists of two or more different types of product subject to this regulation, i.e., base gasoline, detergent-additized gasoline, or specified detergent-additized PRC, then the PTD for the commingled product must identify each such type of component contained in the commingled product.

(5) If the product being transferred is gasoline to which an oxygenate or a PRC has been added, then the PTD for the

gasoline must identify the oxygenate or PRC. The PTDs for commingled, additized gasolines must identify all the oxygenates and PRCs added to either component.

(6) If the product being transferred is base gasoline, then in addition to the base gasoline identification, the following warning must be stated on the PTD: ''Not for sale to the ultimate consumer''. If, pursuant to § 80.160(a), the product being transferred is exempt base gasoline to be used for research, development, or test purposes only, the following warning must also be stated on the PTD: ''For use in research, development, and test programs only.''

(7) The name of the detergent additive as reported in its registration must be used to identify the detergent package on its PTD.

(8) If the product being transferred is leaded gasoline, then the PTD must disclose that the product contains lead and/or phosphorous, as applicable.

(9) If the product being transferred is detergent that is only authorized for the control of carburetor deposits, then the following must be stated on the detergent's transfer document: ''For use with leaded gasoline only.''

(10) If the product being transferred is detergent-additized gasoline that has been overadditized in anticipation of the later (or earlier) addition of PRC, then the PTD must include a statement that the product has been overadditized to account for a specified volume in gallons, or a specified percentage of the product's total volume, of additional, specified PRC.

(b) Gasoline may not be additized with a detergent authorized only for the control of carburetor deposits and whose product transfer document states ''For use with leaded gasoline only'', and gasoline may not be additized at the lower concentration specified for a detergent authorized at a lower concentration for the control of carburetor deposits only, unless the product transfer document for the gasoline to be additized identifies it as leaded gasoline.

(c) *Use of product codes and other non-regulatory language.* (1) Product codes and other non-regulatory language may not be used as a substitute for the specified PTD warning language specified in paragraph (a)(6) of this section for base gasoline, except that:

(i) The specified warning language may be omitted for bulk transfers of base gasoline from a refinery to a pipeline if there is a prior written agreement between the parties specifying that all such gasoline is unadditized and will not be transferred to the ultimate consumer;

(ii) Product codes may be used as a substitute for the specified warning language provided that the PTD is an electronic data interchange (EDI) document being used solely for the transfer of title to the base gasoline, and provided that the product codes otherwise comply with the requirements of this section.

(2) Product codes and other language not specified in this section may otherwise be used to comply with PTD information requirements, provided that they are clear, accurate, and not misleading.

(3) If product codes are used, they must be standardized throughout the distribution system in which they are used, and downstream parties must be informed of their full meaning.

(d) *PTD exemption for small transfers of additized gasoline.* Transfers of additized gasoline are exempt from the PTD requirements of this section provided all the following conditions are followed:

(1) The product is being transferred by a distributor who is not the product's detergent blender; and

(2) The recipient is a wholesale purchaser-consumer (WPC) or other ultimate consumer of gasoline, for its own use only or for that of its agents or employees; and

(3) The volume of additized gasoline being transferred is not greater than 550 gallons.

(e) *Recordkeeping period.* Any person creating, providing or acquiring product transfer documentation for gasoline, detergent, or detergent-additized PRC, except as provided in paragraph (d) of this section, shall retain the documents required by this section for a period of five years from the date the product transfer documentation was created, received or transferred, as applicable, and shall deliver such documents to EPA upon request. WPCs are not required to retain PTDs of additized gasoline received by them.

10. Section 80.160 is revised to read as follows:

§ 80.160 Exemptions.

(a) *Research, development, and testing exemptions.* Any detergent that is either in a research, development, or test status, or is sold to petroleum, automobile, engine, or component manufacturers for research, development, or test purposes, or any gasoline to be used by, or under the control of, petroleum, additive, automobile, engine, or component manufacturers for research, development, or test purposes, is exempted from the provisions of the interim detergent program, provided that:

(1) The detergent (or fuel containing the detergent), or the gasoline, is kept segregated from non-exempt product, and the party possessing the product maintains documentation identifying the product as research, development, or testing detergent or fuel, as applicable, and stating that it is to be used only for research, development, or testing purposes; and

(2) The detergent (or fuel containing the detergent), or the gasoline, is not sold, dispensed, or transferred, or offered for sale, dispensing, or transfer from a retail outlet. It shall also not be sold, dispensed, or transferred, or offered for sale, dispensing, or transfer from a wholesale purchaser-consumer facility, unless such facility is associated with detergent, fuel, automotive, or engine research, development or testing; and

(3) The party using the product for research, development, or testing purposes, or the party sponsoring this usage, notifies the EPA, on at least an annual basis and prior to the use of the product, of the purpose(s) of the program(s) in which the product will be used and the anticipated volume of the product to be used. The information must be submitted to the address or fax number provided in § 80.174(c).

(b) *Racing fuel and aviation fuel exemptions.* Any fuel that is refined, sold, dispensed, transferred, or offered for sale, dispensing, or transfer as automotive racing fuel or as aircraft engine fuel, is exempted from the provisions of this subpart, provided that:

(1) The fuel is kept segregated from non-exempt fuel, and the party possessing the fuel for the purposes of refining, selling, dispensing, transferring, or offering for sale, dispensing, or transfer as automotive racing fuel or as aircraft engine fuel, maintains documentation identifying the product as racing fuel, restricted for non-highway use in racing motor vehicles, or as aviation fuel, restricted for use in aircraft, as applicable;

(2) Each pump stand at a regulated party's facility, from which such fuel is dispensed, is labeled with the applicable fuel identification and use restrictions described in paragraph (b)(1) of this section; and

(3) The fuel is not sold, dispensed, transferred, or offered for sale, dispensing, or transfer for highway use in a motor vehicle.

(c) *California gasoline exemptions.* (1) Gasoline or PRC which is additized in the state of California is exempt from

the VAR provisions in §§ 80.155(b) and (e) and 80.157, provided that:

(i) For all such gasoline or PRC, whether intended for sale within or outside of California, records of the type required for California gasoline (specified in title 13, California Code of Regulations, section 2257) are maintained; and

(ii) Such records, with the exception of daily additization records, are maintained for a period of five years from the date they were created and are delivered to EPA upon request.

(2) Gasoline or PRC that is transferred and/or sold solely within the state of California is exempt from the PTD provisions of the interim detergent program, specified in §§ 80.155(c) and 80.158.

(3) Nothing in this paragraph (c) exempts such gasoline or PRC from the requirements of § 80.155(a) and (e), as applicable. EPA will base its determination of California gasoline's conformity with the detergent's LAC on the additization records required by CARB, or records of the same type.

11. Subpart G is further amended by adding new §§ 80.161 through 80.173, to read as follows:

§ 80.161 Detergent additive certification program.

(a) *Effective dates and applicability of requirements.* (1) As of July 1, 1997:

(i) Detergent additives for the control of port fuel injector deposits (PFID) and/or intake valve deposits (IVD) in gasoline engines may not be transferred or sold for use in compliance with this subpart unless such additives have been certified according to the requirements of this section.

(ii) Except as provided in § 80.169(c)(8), PFID and IVD control additives may not be added to gasoline or post-refinery component (PRC) for compliance with this subpart unless such additives have been certified according to the requirements of this section.

(iii) Gasoline may not be sold or transferred to a party who sells or transfers gasoline to the ultimate consumer unless such gasoline contains detergent additives which have been certified according to the requirements of this section.

(2) Beginning August 1, 1997, all gasoline sold or transferred to the ultimate consumer must contain detergent additive(s) which have been certified, according to the requirements of this section, to be effective for the control of PFID and IVD in gasoline engines.

(3) Except as specifically exempted in § 80.173, these detergency requirements apply to all gasoline, whether intended for on-highway or nonroad use, including conventional, oxygenated, reformulated, and leaded gasolines, as well as the gasoline component in mixtures of petroleum and alcohol fuels, gasoline used as marine fuel, gasoline service accumulation fuel (as described in § 86.113–94(a)(1) of this chapter), the gasoline component of fuel mixtures of petroleum and methanol used for service accumulation in flexible fuel vehicles (as described in § 86.113–94(d) of this chapter), the gasoline used for factory fill purposes, and all additized PRC.

(4) The specific controls and prohibitions applicable to persons subject to these regulations are set forth in § 80.168.

(b) *Detergent additive certification requirements.* For a detergent additive package to be certified as eligible for use by detergent blenders in complying with the gasoline detergency requirements of this subpart, the requirements listed in this paragraph (b) must be satisfied for such detergent. Subject to the provisions of paragraph (e) of this section, if the certifier fails to conduct the specified tests or to submit the specified materials, or if EPA judges the testing or materials to be inadequate, or if the detergent fails EPA confirmatory deposit control performance testing pursuant to § 80.167, the Administrator may deny or withdraw the detergent's eligibility to be used to satisfy the detergency requirements of this subpart.

(1) The detergent additive manufacturer must properly register the detergent additive under 40 CFR part 79. For this purpose:

(i) The compositional data required under § 79.21(a) of this chapter shall include the information specified in § 80.162.

(ii) The minimum recommended additive concentration required under § 79.21(d) of this chapter shall be reported to EPA in units of gallons of detergent additive package per 1000 gallons of gasoline or PRC, provided to four digits. This concentration is the lowest additive concentration (LAC) referred to in § 80.170, and shall be reported as follows:

(A) For a detergent additive registered for use in unleaded gasoline, the minimum concentration must be determined and reported for each certification option under which the manufacturer wishes to certify the additive pursuant to § 80.163.

(*1*) In the case of a detergent certified for use in California gasoline based on an existing certification granted by the California Air Resources Board (CARB), pursuant to § 80.163(d), the minimum recommended concentration must equal or exceed the amount specified in the CARB certification.

(*2*) In the case of any other detergent certification option, the minimum recommended concentration must equal or exceed the amount mixed into the associated test fuel specified in § 80.164, which was shown to satisfy the PFID and IVD deposit control performance tests and standards specified in § 80.165.

(B) For a detergent registered for use in leaded gasoline, the minimum recommended concentration must be no less than the amount shown to be needed for control of carburetor deposits, pursuant to the test procedure and test fuel guidelines in § 80.166.

(C) Once it has been registered by EPA, the minimum recommended concentration specified by a detergent manufacturer to detergent blenders and other users of the additive, pursuant to paragraph (c) of this section, may not be changed without first notifying EPA. Such notification should be sent by certified mail to the address specified in § 80.174(b). The change in minimum concentration must be supported by existing certification data or else the notification to EPA must be accompanied by new certification information which demonstrates that the modification is consistent with the requirements of paragraphs (b)(1)(ii)(A) and (B) of this section.

(2) The detergent additive manufacturer (or other certifying party) must submit to EPA a sample of the actual detergent additive package which was used in the certification testing specified in § 80.164 or, if such sample is not available, then a sample which has the same composition as the package used in certification testing.

(i) The sample volume shall be between 250 ml and 500 ml.

(ii) The sample shall be packaged in a container which has a resealable closure and which will maintain sample integrity for at least one year. The container shall be labeled with the name and address of the manufacturer and the name of the detergent additive package.

(iii) Any known shelf life limitations, and any available information on optimal temperature, light exposure, or other conditions to prolong sample shelf life, shall be provided.

(iv) If the certifying party wishes to claim that the sample or any accompanying documents are entitled to special handling for reasons of business confidentiality, the party must clearly identify the sample or documents as such. EPA will handle any samples or documents with such claims according to the regulations at 40 CFR part 2.

(v) The sample shall be submitted to EPA, at the address provided in § 80.174(a), within seven days of the date on which the certification letter for the detergent package is sent to EPA as required by paragraph (b)(3) of this section.

(3) The detergent additive manufacturer (or other certifying party) shall submit a certification letter for the detergent additive package to the address in § 80.174(b). The party must use certified or express mail with return receipt service. The letter shall be signed by a person legally authorized to represent the certifying party and shall contain the following information:

(i) Identifying information.

(A) The name and address of the detergent additive manufacturer.

(B) In any case where the certifier is not the detergent additive manufacturer, such as in the case of a fuel-specific certification pursuant to § 80.163(c), the name and address of the certifier.

(C) The commercial identifying name of the detergent additive product as registered under the requirements of § 79.21 of this chapter.

(ii) A statement attesting that:

(A) The detergent package which is the subject of this certification has been tested according to applicable procedural and test fuel requirements in this subpart and has met the applicable performance standards; and

(B) The testing was conducted in a manner consistent with good engineering practices; and

(C) Complete documentation of the test fuel formulation and IVD demonstration procedures, detergent performance test procedures, and test results are available for EPA's inspection upon request.

(iii) The name and location of the laboratory(ies) at which the certification testing was conducted and the dates during which the testing was conducted.

(iv) For each option under which certification is sought pursuant to § 80.163, specifications of the test fuel(s) in which the detergent underwent performance testing. These fuel specifications must include:

(A) The sulfur content in weight percent.

(B) The T–90 distillation point in degrees Fahrenheit.

(C) The olefin content in volume percent.

(D) The aromatic content in volume percent.

(E) The identity and volume percent of any oxygenate compound.

(F) The source of the test fuel(s) and/or fuel blend stocks used to formulate the test fuel(s).

(v) In the case of a national or PADD certification (pursuant to § 80.163 (a) or (b)) for which the test fuel was specially formulated from refinery blend stocks, the results of the IVD demonstration test, pursuant to § 80.164(b)(3).

(vi) In the case of a fuel-specific detergent certification, pursuant to § 80.163(c), the definition of the segregated gasoline pool, including any permitted PRC, for which the certification is sought, and the fuel parameter percentile distributions determined for the subject gasoline pool, as specified in § 80.164(c). The percentile distributions must include all of the fuel parameters listed in paragraph (b)(3)(iv) (A) through (D) of this section, along with any other fuel parameter(s) which the certifier wishes to use to define the certification fuel. As specified in § 80.164(c)(1)(iv), the procedures used to measure the additional parameters must be identified, as well as the levels of these additional parameters present in the test fuel(s).

(vii) In the case of a certification for California gasoline based on an existing certification granted by CARB, pursuant to § 80.163(d), a copy of the CARB certificate.

(viii) The test concentration(s) of the subject detergent additive in each test fuel, and the corresponding test results (percent flow restriction demonstrated in the PFID test and milligrams of deposit per valve demonstrated in the IVD test).

(ix) For each option under which certification of the detergent is sought, the minimum recommended concentration which the certifying party seeks to establish for the detergent additive package, pursuant to paragraph (b)(1)(ii) of this section.

(4) EPA will acknowledge receipt of the detergent certification letter. The effective date of certification will be the sooner of 60 days from the date on which EPA receives the certification letter, or the certifier's receipt of EPA's acknowledgement of the certification letter. However, neither the passage of 60 days nor EPA's acknowledgement will signify acceptance by EPA of the validity of the information in the certification letter or the adequacy or potency of the detergent sample submitted pursuant to paragraph (b)(2) of this section. EPA may elect at any time to review the detergent certification data, analyze the submitted detergent additive sample, or subject the detergent additive package to confirmatory testing as described in § 80.167 and, where appropriate, may disqualify a detergent certification according to the provisions in paragraph (e) of this section.

(c) The minimum concentration reported in the detergent registration according to the provisions of paragraph (b)(1)(ii) of this section, plus any restrictions in use associated with that concentration, must be accurately communicated in writing by the additive manufacturer to each fuel manufacturer or detergent blender who purchases the subject detergent for purpose of compliance with the gasoline detergency requirements of this subpart, and to any additive manufacturer who purchases the subject additive with the intent of reselling it to a fuel manufacturer for this purpose.

(d) The rate at which a detergent blender treats gasoline with a detergent additive package must be no less than the minimum recommended concentration reported for the subject detergent additive pursuant to paragraph (b)(1)(ii) of this section, except under the following conditions:

(1) If a detergent blender possesses deposit control performance test results as specified in § 80.165 or § 80.166 which show that the minimum treat rate recommended by the manufacturer of a detergent additive product exceeds the amount of that detergent actually required for effective deposit control, then, upon informing EPA in writing of these circumstances, the detergent blender may use the detergent at the lower concentration substantiated by these test results.

(2) The notification to EPA must clearly specify the name of the detergent product and its manufacturer, the concentration recommended by the detergent manufacturer, and the lower concentration which the detergent blender intends to use. The notification must also attest that the required data are available to substantiate the deposit control effectiveness of the detergent at the intended lower concentration. The notification must be sent by certified mail to the address specified in § 80.174(b).

(3) At its discretion, EPA may require that the detergent blender submit the test data purported to substantiate the claimed effectiveness of the lower concentration of the detergent additive. In addition, EPA may require the manufacturer of the subject detergent additive to submit test data substantiating the minimum recommended concentration specified in the detergent additive registration. In either case, EPA will send a letter to the appropriate party; the supporting data will be due to EPA within 30 days of receipt of EPA's letter.

(i) If the detergent blender fails to submit the required supporting data to EPA in the allotted time period, or if EPA judges the submitted data to be inadequate to support the detergent blender's claim that the lower concentration provides a level of deposit control consistent with the requirements of this section, then EPA will disapprove the use of the detergent at the lower concentration. Further, the detergent blender may be subject to applicable liabilities and penalties pursuant to §§ 80.169 and 80.172 for any gasoline or PRC it has additized at the lower concentration.

(ii) If the detergent manufacturer fails to submit the required test data to EPA within the allotted time period, EPA will proceed on the assumption that data are not available to substantiate the minimum recommended concentration specified in the detergent registration, and the subject additive may be disqualified for use in complying with the requirements of this subpart, pursuant to the procedures in paragraph (e) of this section. The detergent manufacturer may also be subject to applicable liabilities and penalties in §§ 80.169 and 80.172.

(iii) If both parties submit the required information, EPA will evaluate the quality and results of both sets of test data, and will either approve or disapprove the use of the lower treat rate submitted by the detergent blender. EPA will inform both parties of the results of its analysis.

(e) *Disqualification of a detergent additive package.* (1) When EPA makes a preliminary determination that a detergent additive certifier has failed to comply with the detergent certification requirements of this section, including a failure to submit required materials for a detergent additive or submission of materials which EPA deems inadequate, or if a detergent additive fails confirmatory testing conducted pursuant to § 80.167, EPA shall notify the additive certifier by certified mail, return receipt requested, setting forth the basis for that determination and informing the certifier that the detergent may lose its eligibility to be used to comply with the detergency requirements of this section.

(2) If EPA determines that the detergent certification was created by fraud or other misconduct, such as a negligent disregard for the truthfulness or accuracy of the required information, the detergent certification will be considered void *ab initio* and the disqualification will be retroactive to July 1, 1997 or the date on which the additive product was first certified, whichever is later.

(3) The certifier will be afforded 60 days from the date of receipt of the notice of intent of detergent disqualification to submit written comments concerning the notice, and to demonstrate or achieve compliance with the specific requirements which provide the basis for the proposed disqualification. If the certifier does not respond in writing within 60 days from the date of receipt of the notice of intent of disqualification, the detergent disqualification shall become final and the Administrator shall notify the certifier of such final disqualification order. If the certifier responds in writing within 60 days from the date of receipt of the notice of intent to disqualify, the Administrator shall review and consider all comments submitted by the certifier before taking final action concerning the proposed disqualification. All correspondence regarding a disqualification must be sent to the address provided in § 80.174(b).

(4) As part of a written response to a notice of intent to disqualify, a certifier may request an informal hearing concerning the notice. Any such request shall state with specificity the information the certifier wishes to present at such a hearing. If an informal hearing is requested, EPA shall schedule such a hearing within 90 days from the date of receipt of the request. If an informal hearing is held, the subject matter of the hearing shall be confined solely to whether or not the certifier has complied with the specific requirements which provide the basis for the proposed disqualification. If an informal hearing is held, the designated presiding officer may be any EPA employee, the hearing procedures shall be informal, and the hearing shall not be subject to or governed by 40 CFR part 22 or by 5 U.S.C. 554, 556, or 557. A verbatim transcript of each informal hearing shall be kept and the Administrator (or designee) shall consider all relevant evidence and arguments presented at the hearing in making a final decision concerning a proposed disqualification.

(5) If a certifier who has received a notice of intent to disqualify submits a timely written response, and the Administrator (or designee) decides after reviewing the response and the transcript of any informal hearing to disqualify the detergent for use in complying with the requirements of this subpart, the Administrator (or designee) shall issue a final disqualification order and forward a copy of the disqualification order to the certifier by certified mail. Notice of the disqualification order will also be published in the Federal Register. The disqualification will become effective as of the date on which the copy of the order is received by the certifier. If the certifier is also a blender of the disqualified additive, then the certifier must stop using the ineligible detergent upon receipt of the disqualification order.

(6) Within 10 days of receipt of EPA's notification of the final decision to disqualify a detergent additive package pursuant to this paragraph (e), the detergent certifier must submit to EPA, at the address specified in § 80.174(b), a list of its customers who use the disqualified detergent. Failure to do so may subject the certifier to liabilities for violations of § 80.168 that result from the use of the uncertified detergent. EPA shall inform the certifier's customers by certified mail that the detergent is no longer eligible for compliance with the requirements of this subpart. These parties must stop using the ineligible detergent additive package and substitute an eligible detergent additive within 45 days of receiving the notification, or within 45 days of publication of the disqualification notice in the Federal Register, whichever occurs sooner.

§ 80.162 Additive compositional data.

For a detergent additive product to be eligible for use by detergent blenders in complying with the gasoline detergency requirements of this subpart, the compositional data to be supplied to EPA by the additive manufacturer for the purpose of registering a detergent additive package under § 79.21(a) of this chapter must include the items listed in this section. In the case of items requiring measurement or other technical analysis, and for which a specific test procedure is not stipulated herein, the procedure must conform to reasonable and customary standards of repeatability and reproducibility, and reasonable and customary limits of detection and accuracy for the type of test procedure or analytic procedure in question. At EPA's request, detailed documentation of any such test procedure must be submitted within 10 days of the registrant's receipt of EPA's request.

(a) A complete listing of the components of the detergent additive package and the weight and/or volume percent (as applicable) of each component of the package.

(1) When possible, standard chemical nomenclature shall be used or the chemical structure of the component shall be given. Polymeric components may be reported as the product of other chemical reactants, provided that the supporting data specified in paragraph (b) of this section is also reported.

(2) Each detergent-active component of the package shall be classified into one of the following designations:

(i) Polyalkyl amine;

(ii) Polyether amine;

(iii) Polyalkylsuccinimide;

(iv) Polyalkylaminophenol;

(v) Detergent-active petroleum-based carrier oil;

(vi) Detergent-active synthetic carrier oil; and

(vii) Other detergent-active component (identify category, if feasible.)

(3) Composition variability.

(i) The composition of a detergent additive reported in a single additive registration (and the detergent additive product sold under a single additive registration) may not:

(A) Include detergent-active components which differ in identity from those contained in the detergent additive package at the time of certification testing; or

(B) Include a range of concentration for any detergent-active component such that, if the component were present in the detergent additive package at the lower bound of the reported range, the deposit control effectiveness of the additive package would be reduced as compared with the level of effectiveness demonstrated during certification testing.

(ii) The identity or concentration of non-detergent-active components of the detergent additive package may vary under a single registration, provided that the range of such variation is specified in the registration and that such variability does not reduce the deposit control effectiveness of the additive package as compared with the level of effectiveness demonstrated during certification testing.

(iii) Except as provided in paragraph (a)(3)(iv) of this section, detergent additive packages which do not satisfy the restrictions in this paragraph (a)(3) must be separately registered. EPA may disqualify an additive for use in satisfying the requirements of this subpart if EPA determines that the variability included within a given detergent additive registration may reduce the deposit control effectiveness of the detergent package such that it may invalidate the minimum recommended concentration reported in accordance with the applicable requirements of § 80.161(b)(1)(ii).

(iv) A change in minimum concentration requirements resulting from a modification of detergent additive composition shall not require a new detergent additive registration or a change in existing registration if:

(A) The modification is effected by a detergent blender only for its own use or for the use of parties which are subsidiaries of, or share common ownership with, the blender, and the modified detergent is not sold or transferred to other parties; and

(B) The modification is a dilution of the additive for the purpose of ensuring proper detergent flow in cold weather; and

(C) Gasoline is the only diluting agent used; and

(D) The diluted detergent is subsequently added to gasoline at a rate that attains the detergent's registered minimum recommended concentration, taking into account the dilution; and

(E) EPA is notified, either before or within seven days after the dilution action, of the identity of the detergent, the identity of the diluting material, the amount or percentage of the dilution, the change in treat rate necessitated by the dilution, and the locations and time period of diluted detergent usage. The notification shall be sent or faxed to the address in § 80.174(c).

(b) For detergent-active polymers and detergent-active carrier oils which are reported as the product of other chemical reactants:

(1) Identification of the reactant materials and the manufacturer's acceptance criteria for determining that these materials are suitable for use in synthesizing detergent components. The manufacturer must maintain documentation, and submit it to EPA upon request, demonstrating that the acceptance criteria reported to EPA are the same criteria which the manufacturer specifies to the suppliers of the reactant materials.

(2) A Gel Permeation Chromatograph (GPC), providing the molecular weight distribution of the polymer or detergent-active carrier oil components and the concentration of each chromatographic peak representing more than one percent of the total mass. For these results to be acceptable, the GPC test procedure must include equipment calibration with a polystyrene standard or other readily attainable and generally accepted calibration standard. The identity of the calibration standard must be provided, together with the GPC characterization of the standard.

(c) For non-detergent-active carrier oils, the following parameters:

(1) T10, T50, and T90 distillation points, and end boiling point, measured according to applicable test procedures cited in § 80.46.

(2) API gravity and viscosity

(3) Concentration of oxygen, sulfur, and nitrogen, if greater than or equal to 0.5 percent (by weight) of the carrier oil

(d) Description of an FTIR-based method appropriate for identifying the detergent additive package and its detergent-active components (polymers, carrier oils, and others) both qualitatively and quantitatively, together with the actual infrared spectra of the detergent additive package and each detergent-active component obtained by this test method.

(e) To provide a basis for establishing an affirmative defense to presumptive liability pursuant to § 80.169(c)(4)(i)(D)(*2*)(*i*), specific physical parameters must be identified which the manufacturer considers adequate and appropriate, in combination with other information and sampling requirements under this subpart, for identifying the detergent additive package and monitoring its production quality control.

(1) Such parameters shall include (but need not be limited to) viscosity, density, and basic nitrogen content, unless the additive manufacturer specifically requests, and EPA approves, the substitution of other parameter(s) which the manufacturer considers to be more appropriate for a particular additive package. The request must be made in writing and must include an explanation of how the requested physical parameter(s) are helpful as indicator(s) of detergent production quality control. EPA will respond to such requests in writing; the additional parameters are not approved until the certifier receives EPA's written approval.

(2) The manufacturer shall identify a standardized measurement method, consistent with the chemical and physical nature of the detergent product, which will be used to measure each parameter. The documented ASTM repeatability for the method shall also be cited. The manufacturer's target value for each parameter in the detergent package, and the expected range of production values for each parameter, shall be specified.

(3) EPA will consider the parameter measurements to be an acceptable basis for establishing an affirmative defense to presumptive liability, if the expected range of variability differs from the target value by an amount no greater than five times the standard repeatability of the test procedure, or by no more than 10 percent of the target value, whichever is less. However, in the case of nitrogen analysis or other procedures for measuring concentrations of specific chemical compounds or elements, when the target value is less than 10 parts per million, a range of variability up to 50 percent

of the target value will be considered acceptable.

(4) If a manufacturer wishes to rely on measurement methods or production variability ranges which do not conform to the above limitations, then the manufacturer must receive prior written approval from EPA in order to be assured that any related parameter measurements will be considered an acceptable basis for establishing an affirmative defense. A request for such allowance must be made in writing. It must fully justify the adequacy of the test procedure, explain why a broader range of variability is required, and provide evidence that the production detergent will perform adequately throughout the requested range of variability.

§ 80.163 Detergent certification options.

To be used to satisfy the detergency requirements under § 80.161(a), a detergent additive must be certified in accordance with the requirements of one or more of the options and suboptions described in this section. Where a certification option makes an additive eligible for use in a particular gasoline, that additive is also eligible for use in PRC which will be added to the particular gasoline. Under each option, the lowest additive concentration (LAC) or minimum recommended concentration registered for a detergent additive package, pursuant to § 80.161(b)(1)(ii), must equal or exceed the lowest detergent treat rate shown to be needed in the designated test fuel in order to meet the deposit control performance requirements specified in § 80.165.

(a) *National certification.* A detergent certified under a national certification option is eligible for use in gasoline which can be sold or dispensed anywhere within the United States or its territories (subject to approved state programs).

(1) *National generic certification option.* To be certified under this option, a candidate detergent must meet the deposit control performance test requirements and standards specified in § 80.165 using test fuels that conform to the requirements in § 80.164(b)(1), Table 1, Line 1. A detergent certified under this option is eligible to be used at a conforming LAC in any grade of gasoline, with or without an oxygenate component.

(i) *National nonoxygenate suboption.* The requirements for certification under this suboption are the same as those in paragraph (a)(1) of this section, except that, pursuant to § 80.164(a)(2)(ii), the certification test fuel shall contain no ethanol or other oxygenate. A detergent certified under this suboption is eligible to be used at a conforming LAC only in gasoline that does not contain an oxygenate component.

(ii) *National oxygenate-specific suboption.* The requirements for certification under this suboption are the same as those in paragraph (a)(1) of this section, except that, pursuant to § 80.164(a)(2)(iii), the certification test fuel shall contain an oxygenate compound other than ethanol. A detergent certified under this suboption is eligible to be used at a conforming LAC only in gasoline that contains no oxygenate component other than the one present in the test fuel.

(2) *National premium certification option.* To be certified under this option, a candidate detergent must meet the deposit control performance test requirements and standards specified in § 80.165 using test fuels that conform to the requirements in § 80.164(b)(1), Table 1, Line 2. A detergent certified under this option is eligible to be used at a conforming LAC only in premium grade gasoline, with or without an oxygenate component.

(i) *National premium nonoxygenate suboption.* The requirements for certification under this suboption are the same as those in paragraph (a)(2) of this section, except that, pursuant to § 80.164(a)(2)(ii), the certification test fuel shall contain no ethanol or other oxygenate. A detergent certified under this suboption is eligible to be used at a conforming LAC only in premium grade gasoline that does not contain an oxygenate component.

(ii) *National premium oxygenate-specific suboption.* The requirements for certification under this suboption are the same as those in paragraph (a)(2) of this section, except that, pursuant to § 80.164(a)(2)(iii), the certification test fuel shall contain an oxygenate compound other than ethanol. A detergent certified under this suboption is eligible to be used at a conforming LAC only in gasoline that is premium grade and contains no oxygenate component other than the one present in the test fuel.

(b) *Petroleum Administrative Defense District (PADD) Certification.* A detergent certified under a PADD certification option is eligible for use in gasoline which can be sold or dispensed to the ultimate purchaser, or to those parties who sell or dispense to the ultimate consumer, only within the PADD for which the certification was granted. The states and jurisdictions included within each PADD are specified in § 79.59(b)(3)(i) through (v), except that, for purposes of PADD certification, the state of California is excluded from PADD V.

(1) *PADD generic certification option.* To be certified under this option, a candidate detergent must meet the deposit control performance test requirements and standards specified in § 80.165 using test fuels that conform to the requirements in § 80.164(b)(1), Table 2, for a selected PADD. A detergent certified under this option is eligible to be used at a conforming LAC in any grade of gasoline, with or without an oxygenate component, provided that the gasoline is ultimately dispensed in the selected PADD.

(i) *PADD nonoxygenate suboption.* The requirements for certification under this suboption are the same as those in paragraph (b)(1) of this section, except that, pursuant to § 80.164(a)(2)(ii), the certification test fuel shall contain no ethanol or other oxygenate. A detergent certified under this suboption is eligible to be used at a conforming LAC only in gasoline that is nonoxygenated and is ultimately dispensed in the selected PADD.

(ii) *PADD oxygenate-specific suboption.* The requirements for certification under this suboption are the same as those in paragraph (b)(1) of this section, except that, pursuant to § 80.164(a)(2)(iii), the certification test fuel shall contain an oxygenate compound other than ethanol. A detergent certified under this suboption is eligible to be used at a conforming LAC only in gasoline that contains no oxygenate component other than the one present in the test fuel and is ultimately dispensed in the selected PADD.

(2) *PADD premium certification option.* To be certified under this option, a candidate detergent must meet the deposit control performance test requirements and standards specified in § 80.165 using test fuels that conform to the requirements in § 80.164(b)(1), Table 2, for a selected PADD. A detergent certified under this option is eligible to be used at a conforming LAC only in gasoline that is premium grade (with or without an oxygenate component) and is ultimately dispensed in the selected PADD.

(i) *PADD premium nonoxygenate suboption.* The requirements for certification under this suboption are the same as those in paragraph (b)(2) of this section, except that, pursuant to § 80.164(a)(2)(ii), the certification test fuel shall contain no ethanol or other oxygenate. A detergent certified under this suboption is eligible to be used at a conforming LAC only in gasoline that is premium grade, contains no

oxygenate component, and is ultimately dispensed in the selected PADD.

(ii) *PADD premium oxygenate-specific suboption.* The requirements for certification under this suboption are the same as those in paragraph (b)(2) of this section, except that, pursuant to § 80.164(a)(2)(iii), the certification test fuel shall contain an oxygenate compound other than ethanol. A detergent certified under this suboption is eligible to be used at a conforming LAC only in gasoline that is premium grade, contains no oxygenate component other than the one present in the test fuel, and is ultimately dispensed in the selected PADD.

(c) *Fuel-specific certification.* Except as provided in paragraph (c)(3) of this section, to be certified under the fuel-specific certification option, a candidate detergent must meet the deposit control performance test requirements and standards specified in § 80.165 using test fuels that conform to the requirements of § 80.164(c).

(1) A detergent certified under this option is eligible to be used at a conforming LAC only in the defined gasoline pool reported in the certification letter pursuant to § 80.161(b)(3).

(i) The gasoline pool may only include gasoline produced or distributed from the facilities covered by the fuel survey which was used to define the fuel-specific certification test fuels, pursuant to § 80.164(c)(1).

(ii) The gasoline pool must be kept segregated from any other gasoline prior to blending with the detergent additive.

(iii) Depending on the oxygenate components added to the test fuel pursuant to § 80.164(a)(2), the gasoline pool may be inclusive of all grades and all oxygenate blending characteristics (i.e., generic), or may be restricted to non-oxygenated gasoline, or to gasoline containing a specific oxygenate compound. The certification may also be restricted to premium grade gasoline. Any such use restrictions must be specified in the certification letter. Provisions in §§ 80.168 and 80.171(a)(9) through (12) related to such use restrictions also apply.

(2) Detergent certification under this option entails special initial and annual reporting requirements, specified under §§ 80.161(b)(3)(vi) and 80.164(c)(3), which necessitate that the responsible party have control over and access to the segregated gasoline pool for which the detergent is certified. For this reason, the certifying party under this option is likely to be (but is not required to be) a fuel manufacturer or detergent blender, rather than the additive manufacturer.

(3) If a certifier demonstrates that the required test fuel representing a segregated pool of gasoline meets the deposit control performance standards specified in § 80.165 in the absence of a detergent additive, or using a detergent additive which has only PFID-control activity, then this gasoline pool (and PFID detergent, if applicable) can be certified accordingly under the fuel-specific option.

(4) Gasoline properly additized with a detergent certified under the fuel-specific option may be transferred or sold anywhere within the United States and its territories (subject to approved state programs).

(d) *CARB-Based Certification.* A valid certification under section 2257 of Title 13, California Code of Regulations (CARB certification) may be the basis for a certification under the following restrictions and conditions:

(1) A detergent certified under this option may be used at the LAC specified in the CARB certification only in gasoline that meets the requirements of California Phase II reformulated gasoline (pursuant to Title 13, Chapter 5, Article 1, Subarticle 2, California Code of Regulations, Standards for Gasoline Sold Beginning March 1, 1996). The grade(s) of California gasoline which may be so additized, and the oxygenate(s) which may be present, are as specified in the CARB certification for the detergent in question.

(2) The gasoline must be either: Additized in California; or sold or dispensed to the ultimate consumer in California (or to parties who sell or dispense to the ultimate consumer in California); or both additized and ultimately dispensed in California.

(3) A certification under this option will continue to be valid only as long as the CARB certification remains valid. The certifier must cease selling or using a detergent immediately upon being notified by CARB that the CARB certification for this detergent has been invalidated, and must notify EPA within 7 days of receipt of this notification.

§ 80.164 Certification test fuels.

(a) *General requirements.* This section provides specifications for the test fuels required in conjunction with the certification options described in § 80.163. For each such certification option, the associated test fuel must meet or exceed the levels of four basic fuel parameters (aromatics, fuel sulfur, olefins, and T–90) prescribed here and may also contain specified oxygenate compounds. In addition, pursuant to paragraph (b)(3) of this section, some fuels must undergo an IVD demonstration test before they are eligible to be used as test fuels under this certification program. Test fuel characteristics must be reported to EPA in the detergent certification letter required pursuant to § 80.161(b)(3).

(1) Quantitative specifications for the four basic fuel parameters, provided in paragraphs (b) and (c) of this section, refer to the levels of these parameters in the base gasoline prior to the addition of any oxygenate. The levels of the basic fuel parameters must be measured in accordance with applicable procedures in § 80.46.

(2) Oxygenate components of certification test fuels must be of fuel grade quality. The type and amount of oxygenate to be blended into the test fuel (if any) shall be as follows:

(i) To certify a detergent for generic use (i.e., for use in gasoline containing any oxygenate compound, as well as for use in nonoxygenated gasoline), the finished test fuel shall contain ethanol at 10 volume percent.

(ii) To certify a detergent specifically for use in nonoxygenated gasoline, no oxygenate compounds shall be added to the test fuel.

(iii) To certify a detergent specifically for use in gasoline blended with a specified oxygenate compound other than ethanol, the specified oxygenate must be added to the test fuel in an amount such that the finished fuel contains the oxygenate at the highest concentration at which the specific oxygenate may be used in in-use gasoline.

(3) No detergent-active substance other than the detergent additive package undergoing testing may be added to a certification test fuel. Typical nondetergent additives, such as antioxidants, corrosion inhibitors, and metal deactivators, may be present in the test fuel at the discretion of the additive certifier. In addition, any nondetergent additives (other than oxygenate compounds) which are commonly blended into gasoline and which are known or suspected to affect IVD or PFID formation, or to reduce the ability of the detergent in question to control such deposits, should be added to the test fuel for certification testing.

(4) Certification test requirements may be satisfied for a detergent additive using more than one batch of test fuel, provided that each batch satisfies all applicable test fuel requirements under this section.

(5) Unless otherwise required by this section, finished test fuels must conform to the requirements for commercial gasoline described in ASTM D 4814–95c, ''Standard Specification for Automotive Spark-Ignition Engine

Fuel'', which is incorporated by reference. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be inspected at U.S. EPA, OAR, 401 M Street, Southwest, Washington, DC 20460, or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC. Copies of this material may be obtained from ASTM, 1916 Race St., Philadelphia, PA 19103.

(b) National and PADD certification test fuels.

(1) Test fuels for the national generic and premium certification options must contain levels of the designated fuel parameters which meet or exceed the applicable values in Table 1. Test fuels for the PADD generic certification options must contain levels of the designated fuel parameters which meet or exceed the applicable values in Table 2. Test fuels for the PADD premium certification options must contain levels of the designated fuel parameters which meet or exceed the applicable values in Table 3. Oxygenate requirements for the respective nonoxygenate and oxygenate-specific suboptions are specified in paragraph (a)(2) of this section.

TABLE 1.—NATIONAL CERTIFICATION TEST FUELS

Certification option	Required minimum fuel parameter values				
	Sulfur (weight %)	T–90 (F)	Olefins (volume %)	Aromatics (volume %)	Oxygenate (volume %)
1. National Generic	0.034	339	11.4	31.1	10% Ethanol.
2. National Premium	0.016	332	6.5	35.9	

TABLE 2.—PADD-SPECIFIC GENERIC CERTIFICATION TEST FUELS

Certification option	Required minimum fuel parameter values				
	Sulfur (weight %)	T–90 (F)	Olefins (volume %)	Aromatics (volume %)	Oxygenate (volume %)
PADD 1 Generic	0.039	343	15.4	32.1	
PADD 2 Generic	0.034	338	10.3	29.3	
PADD 3 Generic	0.032	343	12.9	29.8	10% Ethanol.
PADD 4 Generic	0.050	326	10.0	27.1	
PADD 5 Generic	0.021	337	7.6	34.5	

TABLE 3.—PADD-SPECIFIC PREMIUM-GRADE CERTIFICATION TEST FUELS

Certification option	Required minimum fuel parameter values				
	Sulfur (weight %)	T–90 (F)	Olefins (volume %)	Aromatics (volume %)	Oxygenate (volume %)
PADD 1 Premium	0.018	332	9.2	38.6	
PADD 2 Premium	0.014	333	6.0	34.3	
PADD 3 Premium	0.015	334	6.0	34.6	10% Ethanol.
PADD 4 Premium	0.040	319	6.0	22.3	
PADD 5 Premium	0.011	332	4.3	36.7	

(2) National and PADD certification test fuels must either be formulated to specification from normal refinery blend stocks, or drawn from finished gasoline supplies. The source of such samples must be normally-operating gasoline production or distribution facilities located in the U.S. Samples must not be drawn from a segregated gasoline pool that is or will be covered by a fuel-specific certification under § 80.163(c) on the date when the certification information under this option is submitted to EPA.

(3) To be eligible for use in detergent additive certification testing, in addition to the specifications above, national and PADD test fuels which are specially formulated from refinery blend stocks must themselves undergo testing to demonstrate their deposit-forming tendency. For this purpose, the unadditized, nonoxygenated test fuel must be subjected to the IVD control test procedure described in § 80.165(b). At the discretion of the tester, the duration of the demonstration test may be less than 10,000 miles, provided the results satisfy the standard of this paragraph. In order to qualify for use in certification testing, the formulated fuel's test results must meet or exceed the values shown in Table 4 for the relevant certification option. If the demonstration test results do not meet these criteria, then the formulated fuel may not be used for detergent certification testing.

TABLE 4.—IVD DEMONSTRATION TEST CRITERIA

Certification option	Minimum required deposit level in IVD demonstration test (mg/valve, average)					
	National	PADD 1	PADD 2	PADD 3	PADD 4	PADD 5
Generic	290	290	260	290	260	260

TABLE 4.—IVD DEMONSTRATION TEST CRITERIA—Continued

Certification option	Minimum required deposit level in IVD demonstration test (mg/valve, average)					
	National	PADD 1	PADD 2	PADD 3	PADD 4	PADD 5
Premium	260	260	235	260	235	235

(c) *Fuel-specific certification test fuels.* (1) Test fuels required for fuel-specific certification must contain levels of each of the four basic fuel parameters (aromatics, olefins, T–90, and fuel sulfur) at no less than their respective 65th percentile values in the segregated gasoline pool for which the detergent certification is sought in accordance with § 80.163(c). These values must be determined by the certifier as follows:

(i) At least once monthly for at least one complete year prior to the certification, the certifier must measure the levels of the required parameters in representative fuel samples contributed to the segregated gasoline pool by each participating refinery, terminal, or other fuel production or distribution facility. The fuel parameters must be measured in accordance with the test procedures in § 80.46. If the applicability of the fuel-specific certification is to be limited to premium gasoline, then the required fuel compositional data must be collected only from samples of premium gasoline.

(ii) The fuel composition survey results, weighted according to the percentage of gasoline contributed to the segregated gasoline pool from each participating facility, shall be used to construct a percentile distribution of the measured values for each of the fuel parameters.

(iii) Data from more than one year may be used to construct the required statistical distribution provided that only the total data from complete consecutive years is used and that all survey data must have been collected within three years of the date the certification information is submitted to EPA.

(iv) At the discretion of the certifier, other fuel parameters may be used to define the certification test fuels in addition to the four required parameters. To be taken into account by EPA in case of confirmatory testing pursuant to § 80.167, such additional parameters must be surveyed and analyzed according to the same requirements applicable to the four standard parameters. In addition, any optional parameters must be measured using test procedures which conform to reasonable and customary standards of repeatability and reproducibility, and reasonable and customary limits of detection and accuracy for the type of test procedure or analytic procedure in question.

(v) Using the percentile distributions calculated from the survey data for the four required parameters and any additional discretionary parameters, the 65th percentile value for each such parameter shall be determined. Prior to the addition of any oxygenate compound, the fuel-specific certification test fuel shall contain each specified parameter at a level or concentration no less than this 65th percentile value. Test fuel oxygenate requirements for generic, nonoxygenate, and oxygenate-specific certification suboptions are specified in paragraph (a)(2) of this section.

(2) Fuel-specific certification test fuels must either be formulated to specification from the same refinery blend stocks which are normally used to blend the gasolines included in the subject gasoline pool, or drawn from the finished fuel supplies which contribute to this pool of gasoline. Fuel-specific certification test fuels need not undergo an IVD demonstration test prior to use in certification testing.

(3) The certifier must submit an annual report to EPA within 30 days of the anniversary of the initial certification effective date. Failure to submit the annual report by the required date will invalidate the fuel-specific certification and may subject the certifier to liability and penalties under §§ 80.169 and 80.172. The purpose of the annual report is to update the information on the composition of the segregated gasoline pool that was characterized by the initial fuel survey.

(i) For this purpose, the same fuel survey and statistical analysis requirements that were conducted pursuant to paragraphs (c)(1)(i),(ii), and (iv) of this section must be repeated, using data for the most current twelve-month period from each of the production/distribution facilities that contributed to the original fuel survey.

(ii) The annual report must present the percentile distributions for each fuel parameter as determined from the new survey data and, for each measured fuel parameter, must compare the newly determined 50th percentile value with the 60th percentile value for that parameter as determined in the original fuel survey.

(iii) If the new 50th percentile level for any fuel parameter is greater than or equal to the 60th percentile level reported in the initial certification, then the fuel-specific certification is no longer valid. In such instance, the certifier must immediately discontinue the sale and use of the subject detergent under the conditions of the fuel-specific certification and must immediately notify any downstream customers/recipients of the subject detergent that the certification is no longer valid and that their use of the detergent must discontinue within seven days. To avoid liability and penalties under §§ 80.169 and 80.172, the certifier must take these remedial steps within 45 days of the anniversary of the original fuel-specific certification. Downstream customers/recipients must discontinue usage of the detergent within seven days of receipt of notification of the detergent's invalidity to avoid such liability.

(4) The fuel composition survey results which support the original test fuel specifications and the annual statistical analyses, along with related documentation on test methods and statistical procedures, shall be retained by the certifier for a period of at least five years, and shall be made available to EPA upon request.

§ 80.165 Certification test procedures and standards.

This section specifies the deposit control test requirements and performance standards which must be met in order to certify detergent additives for use in unleaded gasoline, pursuant to § 80.161(b)(1)(ii)(A)(*2*). These standards must be met in the context of the specific test procedures identified in paragraphs (a) and (b) of this section, except as provided in paragraph (c) of this section. In any case, the testing must be conducted and the performance standards met when the subject detergent additive is mixed in a test fuel meeting all relevant requirements of § 80.164, including the deposit-forming tendency demonstration specified in § 80.164(b)(3), if applicable. Complete test documentation must be submitted

by the certifying party within 30 days of receipt of a written request from EPA for such records.

(a) *Fuel injector deposit control testing.* (1) The required test fuel must produce no more than 5% flow restriction in any one injector when tested in accordance with ASTM D 5598–94, ''Standard Test Method for Evaluating Unleaded Automotive Spark-Ignition Engine Fuel for Electronic Port Fuel Injector Fouling,'' 1994, which is incorporated by reference. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be inspected at U.S. EPA, OAR, 401 M Street, Southwest, Washington, DC 20460, or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC. Copies of this material may be obtained from ASTM, 1916 Race St., Philadelphia, PA 19103.

(2) At the option of the certifier, fuel injector flow may be measured at intervals during the 10,000 mile test cycle described in ASTM D 5598–94, in addition to the flow measurements required at the completion of the test cycle, but not more than every 1,000 miles.

(b) *Intake valve deposit control testing.* The required test fuel must produce the accumulation of less than 100 mg of intake valve deposits on average when tested in accordance with ASTM D 5500–94, ''Standard Test Method for Vehicle Evaluation of Unleaded Automotive Spark-Ignition Engine Fuel for Intake Valve Deposit Formation,'' 1994, which is incorporated by reference. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be inspected at U.S. EPA, OAR, 401 M Street, Southwest, Washington, DC 20460, or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC. Copies of this material may be obtained from ASTM, 1916 Race St., Philadelphia, PA 19103.

(c) If conducted using test fuels meeting all relevant requirements of § 80.164, and completed prior to September 3, 1996, then the PFID and IVD control test procedures required for detergent certification in California (specified in section 2257 of Title 13, California Code of Regulations) will also be considered acceptable. California Air Resources Board, ''Test Method for Evaluating Port Fuel Injector (PFI) Deposits in Vehicle Engines'', March 1, 1991, and California Air Resources Board, ''BMW—10,000 Miles Intake Valve Test Procedure'', March 1, 1991, are incorporated by reference. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be inspected at U.S. EPA, OAR, 401 M Street, Southwest, Washington, DC 20460, or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC. Copies of this material may be obtained from the California Air Resource Board, Stationary Source Division, 2020 L Street, PO Box 2815, Sacramento, CA, 95814.

§ 80.166 Carburetor deposit control performance test and test fuel guidelines.

EPA will use the guidelines in this section to evaluate the adequacy of carburetor deposit control test data, used to support the minimum concentration recommended for detergents used in leaded gasoline pursuant to § 80.161(b)(1)(ii)(B).

(a) *Carburetor Deposit Control Test Procedure and Performance Standard Guidelines.* For demonstration of carburetor deposit control performance, any generally accepted vehicle, engine, or bench test procedure and associated performance standard for carburetor deposit control will be considered adequate. Port and throttle body fuel injector deposit control test data will also be considered to be adequate demonstration of an additive's ability to control carburetor deposits. Examples of acceptable test procedures for demonstration of carburetor deposit control, in addition to the fuel injector test procedure listed in § 80.165(a), are contained in the following references:

(1) ''Test Method for Evaluating Port Fuel Injector (PFI) Deposits in Vehicle Engines'', March 1, 1991, Section 2257, Title 13, California Code of Regulations.

(2) ''A Vehicle Test Technique for Studying Port Fuel Injector Deposits—A Coordinating Research Council Program'', Robert Tupa et al., SAE Technical paper No. 890213, 1989.

(3) ''The Effects of Fuel Composition and Additives on Multiport Fuel Injector Deposits'', Jack Benson et al., SAE Technical Paper Series No. 861533, 1986.

(4) ''Injector Deposits—The Tip of Intake System Deposit Problems'', Brian Taneguchi, et al., SAE Technical Paper Series No. 861534, 1986.

(5) ''Fuel Injector, Intake Valve, and Carburetor Detergency Performance of Gasoline Additives'', C.H. Jewitt et al., SAE Technical Paper No. 872114, 1987.

(6) ''Carburetor Cleanliness Test Procedure, State-of-the-Art Summary, Report: 1973–1981'', Coordinating Research Council, CRC Report No. 529, Coordinating Research Council Inc. (CRC), 219 perimeter Center Parking, Atlanta, Georgia, 30346.

(b) *Carburetor Deposit Control Test Fuel Guidelines.* (1) The gasoline used in the tests described in paragraph (a) of this section must contain the detergent-active components of the subject detergent additive package in an amount which corresponds to the minimum recommended concentration recorded in the respective detergent registration, or less than this amount.

(2) The test fuel must not contain any detergent-active components other than those recorded in the subject detergent certification.

(3) The composition of the test fuel used in carburetor deposit control testing, conducted to support the claimed effectiveness of detergents used in leaded gasoline, should be reasonably typical of in-use gasoline in its tendency to form carburetor deposits (or more severe than typical in-use fuels) as defined by the olefin and sulfur content. A test fuel conforming to these compositional guidelines may be sampled directly from finished gasolines or may be blended to specification using typical refinery blend stocks. Test data using leaded fuels is preferred for this purpose, but data collected using unleaded fuels may also be acceptable provided that some correlation with additive performance in leaded fuels is available.

§ 80.167 Confirmatory testing.

EPA may test a detergent to confirm that the required performance levels are met. Based on the findings of this confirmatory testing, a detergent certification may be denied or revoked under the provisions of § 80.161(e).

(a) Confirmatory testing conducted to evaluate the validity of detergent certifications under the national, PADD, or fuel-specific options will generally entail a single vehicle test using the procedures detailed in § 80.165. The test fuel(s) used in conducting confirmatory certification testing will contain the specified fuel parameters at or below the minimum levels specified in § 80.164, and will otherwise conform to the applicable certification test fuel specifications therein.

(b) Confirmatory certification testing conducted to evaluate the validity of CARB-based detergent certifications will use the subject detergent in test fuel(s) containing the relevant fuel parameters at levels no greater than the maximum levels for which the CARB certification was granted. The test procedures will be conducted pursuant to the procedures

specified under section 2257 of Title 13, California Code of Regulations.

(c) Confirmatory testing conducted to evaluate the validity of registration and certification information specific to detergent use in leaded gasoline will use the subject detergent in a test fuel containing the test fuel parameters at levels no greater than those prescribed in § 80.164. EPA will make all reasonable efforts to use the same test procedure for confirmatory testing purposes as was used by the certifier in conducting deposit control performance testing.

(d) When EPA decides to conduct confirmatory testing on a fuel or additive which is not readily available in the open market, EPA may request that the detergent certifier and/or manufacturer of such fuel or additive furnish a sample in the needed quantity. If testing is conducted to evaluate the validity of a detergent certification under the fuel-specific option, the detergent blender must supply EPA with test fuel, or with blend stocks with which to formulate such test fuel, in sufficient quantity to conduct the specified deposit control performance testing. The fuel or additive manufacturer shall comply with a sample request made pursuant to this paragraph within 30 days of receipt of the request.

§ 80.168 Detergent certification program controls and prohibitions.

(a)(1) No person shall sell, offer for sale, dispense, supply, offer for supply, transport, or cause the transportation of gasoline to the ultimate consumer for use in motor vehicles or in any off-road engines (except as provided in § 80.173), or to a gasoline retailer or wholesale purchaser-consumer, and no person shall detergent-additize gasoline, unless such gasoline is additized in conformity with the requirements of § 80.161. No person shall cause the presence of any gasoline in the gasoline distribution system unless such gasoline is additized in conformity with the requirements of § 80.161.

(2) Gasoline has been additized in conformity with the requirements of § 80.161 when the detergent component satisfies the requirements of § 80.161 and when:

(i) The gasoline has been additized in conformity with the detergent composition and purpose-in-use specifications of a detergent certified in accordance with this subpart, and in accordance with at least the minimum concentration specifications of that detergent as certified or as otherwise provided under § 80.161(d); or

(ii) The gasoline is composed of two or more commingled gasolines and each component gasoline has been additized in conformity with the detergent composition and purpose-in-use specifications of a detergent certified in accordance with this subpart, and in accordance with at least the minimum concentration specifications of that detergent as certified or as otherwise provided under § 80.161(d); or

(iii) The gasoline is composed of a gasoline commingled with a post-refinery component (PRC), and both of these components have been additized in conformity with the detergent composition and use specifications of a detergent certified in accordance with this subpart, and in accordance with at least the minimum concentration specifications of that detergent as certified or as otherwise provided under § 80.161(d).

(b) No person shall blend detergent into gasoline or PRC unless such person complies with the volumetric additive reconciliation requirements of § 80.170.

(c) No person shall sell, offer for sale, dispense, supply, offer for supply, store, transport, or cause the transportation of any gasoline, detergent, or detergent-additized PRC, unless the product transfer document for the gasoline, detergent or detergent-additized PRC complies with the requirements of § 80.171.

(d) No person shall refine, import, manufacture, sell, offer for sale, dispense, supply, offer for supply, store, transport, or cause the transportation of any detergent that is to be used as a component of detergent-additized gasoline or detergent-additized PRC unless such detergent conforms with the composition specifications of a detergent certified in accordance with this subpart and the detergent otherwise complies with the requirements of § 80.161. No person shall cause the presence of any detergent in the detergent, PRC, or gasoline distribution systems unless such detergent complies with the requirements of § 80.161.

(e)(1) No person shall sell, offer for sale, dispense, supply, offer for supply, transport, or cause the transportation of detergent-additized PRC unless the PRC has been additized in conformity with the requirements of § 80.161. No person shall cause the presence in the PRC or gasoline distribution systems of any detergent-additized PRC that fails to conform to the requirements of § 80.161.

(2) PRC has been additized in conformity with the requirements of § 80.161 when the detergent component satisfies the requirements of § 80.161 and when:

(i) The PRC has been additized in accordance with the detergent composition and use specifications of a detergent certified in accordance with this subpart and in conformity with at least the minimum concentration specifications of that detergent as certified or as otherwise provided under § 80.161(d), or

(ii) The PRC is composed of two or more commingled PRCs, and each component has been additized in accordance with the detergent composition and use specifications of a detergent certified in accordance with this subpart, and in conformity with at least the minimum concentration specifications of that detergent as certified or as otherwise provided under § 80.161(d).

§ 80.169 Liability for violations of the detergent certification program controls and prohibitions.

(a) *Persons Liable*—(1) *Gasoline non-conformity.* Where gasoline contained in any storage tank at any facility owned, leased, operated, controlled or supervised by any gasoline refiner, importer, carrier, distributor, reseller, retailer, wholesale purchaser-consumer, oxygenate blender, or detergent blender, is found in violation of any of the prohibitions specified in § 80.168(a), the following persons shall be deemed in violation:

(i) Each gasoline refiner, importer, carrier, distributor, reseller, retailer, wholesale purchaser-consumer, oxygenate blender, or detergent blender, who owns, leases, operates, controls or supervises the facility (including, but not limited to, a truck or individual storage tank) where the violation is found;

(ii) Each gasoline refiner, importer, distributor, reseller, retailer, wholesale purchaser-consumer, oxygenate blender, detergent manufacturer, distributor, or blender, who refined, imported, manufactured, sold, offered for sale, dispensed, supplied, offered for supply, stored, detergent additized, transported, or caused the transportation of the detergent-additized gasoline (or the base gasoline component, the detergent component, or the detergent-additized post-refinery component of the gasoline) that is in violation, and each such party that caused the gasoline that is in violation to be present in the gasoline distribution system; and

(iii) Each gasoline carrier who dispensed, supplied, stored, or transported any gasoline in the storage tank containing gasoline found to be in violation, and each detergent carrier who dispensed, supplied, stored, or transported the detergent component of

any PRC or gasoline in the storage tank containing gasoline found to be in violation, provided that EPA demonstrates, by reasonably specific showings by direct or circumstantial evidence, that the gasoline or detergent carrier caused the violation.

(2) *Post-refinery component non-conformity.* Where detergent-additized PRC contained in any storage tank at any facility owned, leased, operated, controlled or supervised by any gasoline refiner, importer, carrier, distributor, reseller, retailer, wholesale purchaser-consumer, oxygenate blender, detergent manufacturer, carrier, distributor, or blender, is found in violation of the prohibitions specified in § 80.168(e), the following persons shall be deemed in violation:

(i) Each gasoline refiner, importer, carrier, distributor, reseller, retailer, wholesale-purchaser consumer, oxygenate blender, detergent manufacturer, carrier, distributor, or blender, who owns, leases, operates, controls or supervises the facility (including, but not limited to, a truck or individual storage tank) where the violation is found;

(ii) Each gasoline refiner, importer, distributor, reseller, retailer, wholesale purchaser-consumer, oxygenate blender, detergent manufacturer, distributor, or blender, who sold, offered for sale, dispensed, supplied, offered for supply, stored, detergent additized, transported, or caused the transportation of the detergent-additized PRC (or the detergent component of the PRC) that is in violation, and each such party that caused the PRC that is in violation to be present in the PRC or gasoline distribution systems; and

(iii) Each carrier who dispensed, supplied, stored, or transported any detergent-additized PRC in the storage tank containing PRC that is in violation, and each detergent carrier who dispensed, supplied, stored, or transported the detergent component of any detergent-additized PRC which is in the storage tank containing detergent-additized PRC found to be in violation, provided that EPA demonstrates by reasonably specific showings by direct or circumstantial evidence, that the gasoline or detergent carrier caused the violation.

(3) *Detergent non-conformity.* Where the detergent (prior to additization) contained in any storage tank or container found at any facility owned, leased, operated, controlled or supervised by any gasoline refiner, importer, carrier, distributor, reseller, retailer, wholesale purchaser-consumer, oxygenate blender, detergent manufacturer, carrier, distributor, or blender, is found in violation of the prohibitions specified in § 80.168(d), the following persons shall be deemed in violation:

(i) Each gasoline refiner, importer, carrier, distributor, reseller, retailer, wholesale purchaser-consumer, oxygenate blender, detergent manufacturer, carrier, distributor, or blender, who owns, leases, operates, controls or supervises the facility (including, but not limited to, a truck or individual storage tank) where the violation is found;

(ii) Each gasoline refiner, importer, distributor, reseller, retailer, wholesale purchaser-consumer, oxygenate blender, detergent manufacturer, distributor, or blender, who sold, offered for sale, dispensed, supplied, offered for supply, stored, transported, or caused the transportation of the detergent that is in violation, and each such party that caused the detergent that is in violation to be present in the detergent, gasoline, or PRC distribution systems; and

(iii) Each gasoline or detergent carrier who dispensed, supplied, stored, or transported any detergent which is in the storage tank or container containing detergent found to be in violation, provided that EPA demonstrates, by reasonably specific showings by direct or circumstantial evidence, that the gasoline or detergent carrier caused the violation.

(4) *Volumetric additive reconciliation.* Where a violation of the volumetric additive reconciliation requirements established by § 80.168(b) has occurred, the following persons shall be deemed in violation:

(i) Each detergent blender who owns, leases, operates, controls or supervises the facility (including, but not limited to, a truck or individual storage tank) where the violation has occurred; and

(ii) Each gasoline refiner, importer, carrier, distributor, reseller, retailer, wholesale purchaser-consumer, or oxygenate blender, and each detergent manufacturer, carrier, distributor, or blender, who refined, imported, manufactured, sold, offered for sale, dispensed, supplied, offered for supply, stored, transported, or caused the transportation of the detergent-additized gasoline, the base gasoline component, the detergent component, or the detergent-additized PRC of the gasoline that is in violation, provided that EPA demonstrates, by reasonably specific showings by direct or circumstantial evidence, that such person caused the violation.

(5) *Product transfer document.* Where a violation of § 80.168(c) is found at a facility owned, leased, operated, controlled, or supervised by any gasoline refiner, importer, carrier, distributor, reseller, retailer, wholesale purchaser-consumer, oxygenate blender, detergent manufacturer, carrier, distributor, or blender, the following persons shall be deemed in violation: each gasoline refiner, importer, carrier, distributor, reseller, retailer, wholesale purchaser-consumer, oxygenate blender, detergent manufacturer, carrier, distributor, or blender, who owns, leases, operates, control or supervises the facility (including, but not limited to, a truck or individual storage tank) where the violation is found.

(b) *Branded Refiner Vicarious Liability.* Where any violation of the prohibitions specified in § 80.168 has occurred, with the exception of violations of § 80.168(c), a refiner will also be deemed liable for violations occurring at a facility operating under such refiner's corporate, trade, or brand name or that of any of its marketing subsidiaries. For purposes of this section, the word facility includes, but is not limited to, a truck or individual storage tank.

(c) *Defenses.* (1) In any case in which a gasoline refiner, importer, distributor, carrier, reseller, retailer, wholesale purchaser-consumer, oxygenate blender, detergent distributor, carrier, or blender, is in violation of any of the prohibitions of § 80.168, pursuant to paragraph (a) or (b) of this section as applicable, the regulated party shall be deemed not in violation if it can demonstrate:

(i) That the violation was not caused by the regulated party or its employee or agent (unless otherwise provided in this paragraph (c));

(ii) That product transfer documents account for the gasoline, detergent, or detergent-additized PRC in violation and indicate that the gasoline, detergent, or detergent-additized PRC satisfied relevant requirements when it left the party's control; and

(iii) That the party has fulfilled the requirements of paragraphs (c) (2) or (3) of this section, as applicable.

(2) *Branded refiner.* Where a branded refiner is in violation of any of the prohibitions of § 80.168 as a result of violations occurring at a facility (including, but not limited to, a truck or individual storage tank) which is operating under the corporate, trade or brand name of a refiner or that of any of its marketing subsidiaries, the refiner shall be deemed not in violation if it can demonstrate, in addition to the defense requirements stated in paragraph (c)(1) of this section, that the violation was caused by:

(i) An act in violation of law (other than these regulations), or an act of sabotage or vandalism, whether or not

such acts are violations of law in the jurisdiction where the violation of the prohibitions of § 80.168 occurred; or

(ii) The action of any gasoline refiner, importer, reseller, distributor, oxygenate blender, detergent manufacturer, distributor, blender, or retailer or wholesale purchaser-consumer supplied by any of these persons, in violation of a contractual undertaking imposed by the refiner designed to prevent such action, and despite the implementation of an oversight program, including, but not limited to, periodic review of product transfer documents by the refiner to ensure compliance with such contractual obligation; or

(iii) The action of any gasoline or detergent carrier, or other gasoline or detergent distributor not subject to a contract with the refiner but engaged by the refiner for transportation of gasoline, PRC, or detergent, to a gasoline or detergent distributor, oxygenate blender, detergent blender, gasoline retailer or wholesale purchaser consumer, despite specification or inspection of procedures or equipment by the refiner which are reasonably calculated to prevent such action.

(iv) In this paragraph (c)(2), to show that the violation ''was caused'' by any of the specified actions, the party must demonstrate by reasonably specific showings, by direct or circumstantial evidence, that the violation was caused or must have been caused by another.

(3) *Detergent blender.* In any case in which a detergent blender is liable for violating any of the prohibitions of § 80.168, the detergent blender shall not be deemed in violation if it can demonstrate, in addition to the defense requirements stated in paragraph (c)(1) of this section, the following:

(i) That it obtained or supplied, as appropriate, prior to the detergent blending, accurate written instructions from the detergent manufacturer or other party with knowledge of such instructions, specifying the appropriate LAC for the detergent, as specified in § 80.161(b)(1)(ii), together with any use restrictions which pertain to this LAC pursuant to the detergent's certification; and

(ii) That it has implemented a quality assurance program that includes, but is not limited to, a periodic review of its supporting product transfer and volume measurement documents to confirm the correctness of its product transfer and volumetric additive reconciliation documents created for all products it additized.

(4) *Detergent manufacturer.*— (i) *Presumptive Liability Affirmative Defense.* Notwithstanding the provisions of paragraph (c)(1) of this section, in any case in which a detergent manufacturer is liable for violating any of the prohibitions of § 80.168, the detergent manufacturer shall be deemed not in violation if it can demonstrate each of the following:

(A) Product transfer documents which account for the detergent component of the product in violation and which indicate that such detergent satisfied all relevant requirements when it left the detergent manufacturer's control.

(B) Written blending instructions which, pursuant to § 80.161(c), were supplied by the detergent manufacturer to its customer who purchased or obtained from the manufacturer the detergent component of the product determined to be in violation. The written blending instructions must have been supplied by the manufacturer prior to the customer's use or sale of the detergent. The instructions must accurately specify both the appropriate LAC for the detergent, pursuant to § 80.161(b)(1)(ii), plus any use restrictions which may pertain to this LAC pursuant to the detergent's certification.

(C) If the detergent batch used in the noncomplying product was produced less than one year before the manufacturer was notified by EPA of the possible violation, then the manufacturer must provide FTIR test results for the batch in question.

(*1*) The FTIR analysis may have been conducted on the subject detergent batch at the time it was manufactured, or may be conducted on a sample of that batch which the manufacturer retained for such purpose at the time the batch was manufactured.

(*2*) To establish that, when it left the manufacturer's control, the detergent component of the noncomplying product was in conformity with the chemical composition and concentration specifications reported pursuant to § 80.161(b), the FTIR test results for the detergent batch used in the noncomplying product must, in EPA's judgment, be consistent with the FTIR results submitted at the time of registration pursuant to § 80.162(d).

(D) If the detergent batch used in the noncomplying product was produced more than one year prior to the manufacturer's notification by EPA of the possible violation, then the manufacturer must provide either:

(*1*) FTIR test results for the batch in question as specified in the preceding paragraph (c)(4)(i)(C) of this § 80.169(c); or

(*2*) The following materials:

(*i*) Documentation for the batch in question, showing that its measured viscosity, density, and basic nitrogen content, or any other such physical parameter(s) which EPA may have approved for monitoring production quality control, were within the acceptable range of production values specified in the certification pursuant to § 80.162(e); and

(*ii*) If the detergent registration identifies polymeric component(s) of the detergent package as the product(s) of other chemical reactants, documentation that the reagents used to synthesize the detergent batch in question were the same as those specified in the registration and that they met the manufacturer's normal acceptance criteria reported pursuant to § 80.162(b)(1).

(ii) *Detergent manufacturer causation liability.* In any case in which a detergent manufacturer is liable for a violation of § 80.168, and the manufacturer establishes an affirmative defense to such liability pursuant to § 80.169(c)(4)(i), the detergent manufacturer will nonetheless be deemed liable for the violation of § 80.168 if EPA can demonstrate, by reasonably specific showings by direct or circumstantial evidence, that the detergent manufacturer caused the violation.

(5) *Defense against liability where more than one party may be liable for VAR violations.* In any case in which a party is presumptively or vicariously liable for a violation of § 80.170, except for the VAR record requirements pursuant to § 80.170(g), such party shall not be deemed liable if it can establish the following:

(i) Prior to the violation it had entered into a written contract with another potentially liable detergent blender party (''the assuming party''), under which that other party assumed legal responsibility for fulfilling the VAR requirement that had been violated;

(ii) The contract included reasonable oversight provision to ensure that the assuming party fulfilled its VAR responsibilities (including, but not limited to, periodic review of VAR records) and the oversight provision was actually implemented by the party raising the defense;

(iii) The assuming party is fiscally sound and able to pay its penalty for the VAR violation; and

(iv) The employees or agents of the party raising the defense did not cause the violation.

(6) *Defense to liability for gasoline non-conformity violations caused solely by the addition of misadditized ethanol or other PRC to the gasoline.* In any case in which a party is presumptively or vicariously liable for a gasoline non-conformity violation of § 80.168(a)

caused solely by another party's addition of misadditized ethanol or other PRC to the gasoline, the former party shall not be deemed liable for the violation, provided that it can establish that it has fulfilled the defense requirements of paragraphs (c)(1) (i) and (ii) of this section.

(7) *Detergent tank transitioning defenses.* The commingling of two detergents in the same detergent storage tank will not be deemed to violate or cause violations of any of the provisions of this subpart, provided the following conditions are met:

(i) The commingling must occur during a legitimate detergent transitioning event, *i.e.*, a shift from the use of one detergent to another through the delivery of the new detergent into the same tank that contains the original detergent; and

(ii) Any use restrictions applicable to the new detergent's certification also apply to the combined detergents; and

(iii) The commingling event must be documented, either on the VAR formula record or on attached supporting records; and

(iv) Notwithstanding any contrary provisions in § 80.170, a VAR formula record must be created for the combined detergents. The VAR compliance period must begin no later than the time of the commingling event. However, at the blender's option, the compliance period may begin earlier, thus including use of the uncombined original detergent within the same period, provided that the 31-day limitation pursuant to § 80.170(a)(6) is not exceeded; and

(v) The VAR formula record must also satisfy the requirements in one of the following paragraphs (c)(7)(v) (A) through (C) of this section, whichever applies to the commingling event. If neither paragraph (c)(7)(v) (A) nor (B) of this section initially applies, then the blender may drain and subsequently redeliver the original detergent into the tank in restricted amounts, in order to meet the conditions of paragraph (c)(7)(v) (A) or (B) of this section. Otherwise, the blender must comply with paragraph (c)(7)(v)(C) of this section.

(A) If both detergents have the same LAC, and the original detergent accounts for no more than 20 percent of the tank's total delivered volume after addition of the new detergent, then the VAR formula record is required to identify only the use of the new detergent.

(B) If the two detergents have different LACs and the original detergent accounts for 10 percent or less of the tank's total delivered volume after addition of the new detergent, then the VAR formula record is required to identify only the use of the new detergent, and must attain the LAC of the new detergent. If the original detergent's LAC is greater than that of the new detergent, then the compliance period may begin earlier than the date of the commingling event (pursuant to paragraph (c)(7)(iv) of this section) only if the original detergent does not exceed 10 percent of the total detergent used during the compliance period.

(C) If neither of the preceding paragraphs (c)(7)(v) (A) or (B) of this section applies, then the VAR formula record must identify both of the commingled detergents, and must use and attain the higher LAC of the two detergents. Once the commingled detergent has been depleted by an amount equal to the volume of the original detergent in the tank at the time the new detergent was added, subsequent VAR formula records must identify and use the LAC of only the new detergent.

(8) *Transition from noncertified to certified detergent.* Notwithstanding the prohibitions in §§ 80.161(a)(3) and 80.168, after June 30, 1997, the addition to gasoline or PRC of a detergent which has not been certified pursuant to § 80.161 shall not be deemed to violate or cause violations of provisions of this subpart, provided that all of the following conditions are met:

(i) The detergent was received by the detergent blender prior to July 1, 1997 and is used prior to January 1, 1998. Documentation which supports these dates must be maintained for at least five years and must be available for EPA's inspection upon request;

(ii) The detergent is added to gasoline or PRC only in combination with a certified detergent and, at any one time, accounts for no more than 10 percent of the detergent tank's delivered volume;

(iii) The total volume of detergent added to the gasoline or PRC is sufficient to attain the LAC of the certified detergent; and

(iv) Use restrictions associated with the certified detergent are adhered to.

(g) Procedures for curing use restrictions. In the case of a fuel product which has been additized with a detergent under the conditions of a use-restricted certification (pursuant to § 80.163), the use restriction can be negated (''cured'') by application of the procedures in this paragraph (g). A party shall not be liable for violations of § 80.168(a) or (e) caused solely by the additization or subsequent use of gasoline or PRC in violation of such use restriction, provided that the following steps and conditions are applied before EPA has identified the nonconformity and prior to the sale or transfer of nonconforming product to the ultimate consumer:

(i) Additional detergent must be added in sufficient quantity to provide effective deposit control, taking into account both the amount of detergent previously added and the final anticipated volume and composition of the subject fuel product.

(ii) The additional detergent may be either the original detergent or a different detergent, so long as the additional detergent has been separately certified both for use with the subject fuel product and for use with the type of fuel product associated with the restriction which the party wishes to negate by the curing procedure. Detergents which have not been separately certified for both types of fuel products are not eligible to be used for this curing procedure.

(iii) If a fuel product has been detergent additized under the conditions of a use-restricted certification which would preclude the addition of an oxygenate or other PRC, then such oxygenate or other PRC may nevertheless be added to that fuel product under this curing procedure, provided that additional eligible detergent is added, in an amount which equals or exceeds the number of gallons (D_A) derived from the following equation:

Additional Detergent Volume=$D_A=Vp(LAC_2–LAC_1) + V(1-p)LAC_2$

Where:

V=Final volume of fuel product (in gallons)

p=Fraction of final fuel product composed of the original (uncombined) fuel product

LAC_2=Detergent's LAC certified for the final combined fuel product (in gallons of detergent per 1,000 gallons of fuel product)

LAC_1=Detergent's LAC certified for the original (uncombined) fuel product (in gallons of detergent per 1,000 gallons of fuel product)

(iv) In other instances in which gasoline or PRC has been additized in violation of a detergent use restriction, and no additional fuel components are to be added, such use restriction can be cured by the addition of eligible detergent in an amount which equals or exceeds the number of gallons (DA) derived from the following equation, which is a simplified version of the previous equation:

Additional Detergent Volume=$D_A=V(LAC_2–LAC_1)$

Where:

V=Volume of fuel product (in gallons) to be cured of the use restriction

LAC_2=Detergent's LAC certified for the fuel product without the use restriction (in gallons of detergent per 1,000 gallons of fuel product)

LAC_1=Detergent's LAC certified for the fuel product with the use restriction to be cured (in gallons of detergent per 1,000 gallons of fuel product)

(v) In all such instances, a curing VAR must be created and maintained, which documents the use of the appropriate equation as specified above, and otherwise complies with the requirements of § 80.170(f)(6).

§ 80.170 Volumetric additive reconciliation (VAR), equipment calibration, and recordkeeping requirements.

This section contains requirements for automated detergent blending facilities and hand-blending detergent facilities. All gasoline and all PRC intended for use in gasoline must be additized unless otherwise noted in supporting VAR records, and must be accounted for in VAR records. The VAR reconciliation standard is attained under this section when the actual concentration of detergent used per VAR formula record equals or exceeds the applicable LAC certified for that detergent pursuant to § 80.161(b)(3)(ix) or, if appropriate, § 80.161(d). If a given detergent package has been certified under more than one certification option pursuant to § 80.163, then a separate VAR formula record must be created for gasoline or PRC additized on the basis of each certification and its respective LAC. In such cases, the amount of the detergent used under different certification options must be accurately and separately measured, either through the use of a separate storage tank, a separate meter, or some other measurement system that is able to accurately distinguish its use. Recorded volumes of gasoline, detergent, and PRC must be expressed to the nearest gallon (or smaller units), except that detergent volumes of five gallons or less must be expressed to the nearest tenth of a gallon (or smaller units). However, if the blender's equipment cannot accurately measure to the nearest tenth of a gallon, then such volumes must be rounded downward to the next lower gallon. PRC included in the reconciliation must be identified. Each VAR formula record must also contain the following information:

(a) *Automated blending facilities.* In the case of an automated detergent blending facility, for each VAR period, for each detergent storage system and each detergent in that storage system, the following must be recorded:

(1) The manufacturer and commercial identifying name of the detergent additive package being reconciled, the LAC, and any use restriction applicable to the LAC. The LAC must be expressed in terms of gallons of detergent per thousand gallons of gasoline or PRC, and expressed to four digits. If the detergent storage system which is the subject of the VAR formula record is a proprietary system under the control of a customer, this fact must be indicated on the record.

(2) The total volume of detergent blended into gasoline and PRC, in accordance with one of the following paragraphs (a)(2)(i) or (ii) of this section, as applicable.

(i) For a facility which uses in-line meters to measure detergent usage, the total volume of detergent measured, together with supporting data which includes one of the following: the beginning and ending meter readings for each meter being measured, the metered batch volume measurements for each meter being measured, or other comparable metered measurements. The supporting data may be supplied on the VAR formula record or in the form of computer printouts or other comparable VAR supporting documentation.

(ii) For a facility which uses a gauge to measure the inventory of the detergent storage tank, the total volume of detergent shall be calculated from the following equation:

Detergent Volume=(A)–(B)+(C)–(D)

Where:

A=Initial detergent inventory of the tank

B=Final detergent inventory of the tank

C=Sum of any additions to detergent inventory

D=Sum of any withdrawals from detergent inventory for purposes other than the additization of gasoline or PRC.

The value of each variable in this equation must be separately recorded on the VAR formula record. In addition, a list of each detergent addition included in variable C and a list of each detergent withdrawal included in variable D must be provided, either on the formula record or as VAR supporting documentation.

(3) The total volume of gasoline plus PRC to which detergent has been added, together with supporting data which includes one of the following: the beginning and ending meter measurements for each meter being measured, the metered batch volume measurements for each meter being measured, or other comparable metered measurements. The supporting data may be supplied on the VAR formula record or in the form of computer printouts or other comparable VAR supporting documentation. If gasoline has intentionally been overadditized in anticipation of the later addition of unadditized PRC, then the total volume of gasoline plus PRC recorded must include the expected amount of unadditized PRC to be added later. In addition, the amount of gasoline which was overadditized for this purpose must be specified.

(4) The actual detergent concentration, calculated as the total volume of detergent added (pursuant to paragraph (a)(2) of this section), divided by the total volume of gasoline plus PRC (pursuant to paragraph (a)(3) of this section). The concentration must be calculated and recorded to four digits.

(5) A list of each detergent concentration rate initially set for the detergent that is the subject of the VAR record, together with the date and description of each adjustment to any initially set concentration. The concentration adjustment information may be supplied on the VAR formula record or in the form of computer printouts or other comparable VAR supporting documentation. No concentration setting is permitted below the applicable certified LAC, except as may be modified pursuant to § 80.161(d) or as described in paragraph (a)(7) of this section.

(6) The dates of the VAR period, which shall be no longer than thirty-one days. If the VAR period is contemporaneous with a calendar month, then specifying the month will fulfill this requirement; if not, then the beginning and ending dates and times of the VAR period must be listed. The times may be supplied on the VAR formula record or in supporting documentation. Any adjustment to any detergent concentration rate more than 10 percent over the concentration rate initially set in the VAR period shall terminate that VAR period and initiate a new VAR period, except as provided in paragraph (a)(7) of this section.

(7) The concentration setting for a detergent injector may be set below the applicable LAC, or it may be adjusted more than 10 percent above the concentration initially set in the VAR period without terminating that VAR period, provided that:

(i) The purpose of the change is to correct a batch misadditization prior to the end of the VAR period and prior to the transfer of the batch to another party, or to correct an equipment malfunction; and

(ii) The concentration is immediately returned after the correction to a concentration that fulfills the

requirements of paragraphs (a) (5) and (6) of this section; and

(iii) The blender creates and maintains documentation establishing the date and adjustments of the correction; and

(iv) If the correction is initiated only to rectify an equipment malfunction, and the amount of detergent used in this procedure is not added to gasoline within the compliance period, then this amount is subtracted from the detergent volume listed on the VAR formula record.

(8) If unadditized gasoline has been transferred from the facility, other than bulk transfers from refineries or pipelines to non-retail outlets or non-WPC facilities, the total amount of such gasoline must be specified.

(b) *Non-automated facilities.* In the case of a facility in which hand blending or any other non-automated method is used to blend detergent, for each detergent and for each batch of gasoline and each batch of PRC to which the detergent is being added, the following shall be recorded:

(1) The manufacturer and commercial identifying name of the detergent additive package being reconciled, the LAC, and any use restriction applicable to the LAC. The LAC must be expressed in terms of gallons of detergent per thousand gallons of gasoline or PRC, and expressed to four digits.

(2) The date of the additization that is the subject of the VAR formula record.

(3) The volume of added detergent.

(4) The volume of the gasoline and/or PRC to which the detergent has been added. If gasoline has intentionally been overadditized in anticipation of the later addition of unadditized PRC, then the total volume of gasoline plus PRC recorded must include the expected amount of unadditized PRC to be added later. In addition, the amount of gasoline which was overadditized for this purpose must be specified.

(5) The brand (if known), grade, and leaded/unleaded status of gasoline, and/or the type of PRC.

(6) The actual detergent concentration, calculated as the volume of added detergent (pursuant to paragraph (b)(3) of this section), divided by the volume of gasoline and/or PRC (pursuant to paragraph (b)(4) of this section). The concentration must be calculated and recorded to four digits.

(c) Every VAR formula record created pursuant to paragraphs (a) and (b) of this section shall contain the following:

(1) The signature of the creator of the VAR record;

(2) The date of the creation of the VAR record; and

(3) A certification of correctness by the creator of the VAR record.

(d) Electronically-generated VAR formula and supporting records.

(1) Electronically-generated records are acceptable for VAR formula records and supporting documentation (including PTDs), provided that they are complete, accessible, and easily readable. VAR formula records must also be stored with access and audit security, which must restrict to a limited number of specified people those who have the ability to alter or delete the records. In addition, parties maintaining records electronically must make available to EPA the hardware and software necessary to review the records.

(2) Electronically-generated VAR formula records may use an electronic user identification code to satisfy the signature requirements of paragraph (c)(1) of this section, provided that:

(i) The use of the ID is limited to the record creator; and

(ii) A paper record is maintained, which is signed and dated by the VAR formula record creator, acknowledging that the use of that particular user ID on a VAR formula record is equivalent to his/her signature on the document.

(e) Automated detergent blenders must calibrate their detergent equipment once in each calendar half year, with the acceptable calibrations being no less than one hundred twenty days apart. Equipment recalibration is also required each time the detergent package is changed, unless written documentation indicates that the new detergent package has the same viscosity as the previous detergent package. Detergent package change calibrations may be used to satisfy the semiannual requirement provided that the calibrations occur in the appropriate half calendar year and are no less than one hundred twenty days apart.

(f) The following VAR supporting documentation must also be created and maintained:

(1) For all automated detergent blending facilities, documentation reflecting performance of the calibrations required by paragraph (e) of this section, and any associated adjustments of the automated detergent equipment;

(2) For all hand-blending facilities which are terminals, a record specifying, for each VAR period, the total volume in gallons of transfers from the facility of unadditized base gasoline;

(3) For all detergent blending facilities, product transfer documents for all gasoline, detergent and detergent-additized PRC transferred into or out of the facility; in addition, bills of lading, transfer, or sale for all unadditized PRC transferred into the facility;

(4) For all automated detergent blending facilities, documentation establishing the brands (if known) and grades of the gasoline which is the subject of the VAR formula record; and

(5) For all hand blending detergent blenders, the documentation, if in the party's possession, supporting the volumes of gasoline, PRC, and detergent reported on the VAR formula record.

(6) For all detergent blending facilities, documentation establishing the curing of a batch or amount of misadditized gasoline or PRC, or the curing of a use restriction on the additized gasoline or PRC, and providing at least the following information: the date of the curing procedure; the problem that was corrected; the amount, name, and LAC of the original detergent used; the amount, name, and LAC of the added curing detergent; and the actual detergent concentration attained in, and the volume of, the total cured product.

(g) Document retention and availability. All detergent blenders shall retain the documents required under this section for a period of five years from the date the VAR formula records and supporting documentation are created, and shall deliver them upon request to the EPA Administrator or the Administrator's authorized representative.

(1) Except as provided in paragraph (g)(3) of this section, automated detergent blender facilities and hand-blender facilities which are terminals, which physically blend detergent into gasoline, must make immediately available to EPA, upon request, the preceding twelve months of VAR formula records plus the preceding two months of VAR supporting documentation.

(2) Except as provided in paragraph (g)(3) of this section, other hand-blending detergent facilities which physically blend detergent into gasoline must make immediately available to EPA, upon request, the preceding two months of VAR formula records and VAR supporting documentation.

(3) Facilities which have centrally maintained records at other locations, or have customers who maintain their own records at other locations for their proprietary detergent systems, and which can document this fact to the Agency, may have until the start of the next business day after the EPA request to supply VAR supporting documentation, or longer if approved by the Agency.

(4) In this paragraph (g) of this section, the term *immediately available*

means that the records must be provided, electronically or otherwise, within approximately one hour of EPA's request, or within a longer time frame as approved by EPA.

§ 80.171 Product transfer documents (PTDs).

(a) *Contents.* For each occasion when any gasoline refiner, importer, reseller, distributor, carrier, retailer, wholesale purchaser-consumer, oxygenate blender, detergent manufacturer, distributor, carrier, or blender, transfers custody or title to any gasoline, detergent, or detergent-additized PRC other than when detergent-additized gasoline is sold or dispensed at a retail outlet or wholesale purchaser-consumer facility to the ultimate consumer, the transferor shall provide to the transferee, and the transferee shall acquire from the transferor, documents which accurately include the following information:

(1) The name and address of the transferee and transferor; the address requirement may be fulfilled, in the alternative, through separate documentation which establishes said addresses and is maintained by the parties and made available to EPA for the same length of time as required for the PTDs, provided that the normal business procedure of these parties is not to identify addresses on PTDs.

(2) The date of the transfer.

(3) The volume of product transferred.

(4)(i) The identity of the product being transferred (*i.e.*, its identity as base gasoline, detergent, detergent-additized gasoline, or specified detergent-additized oxygenate or detergent-additized gasoline blending stock that comprises a detergent-additized PRC). PTDs for detergent-additized gasoline or PRC are not required to identify the particular detergent used to additize the product.

(ii) If the product being transferred consists of two or more different types of product subject to this regulation, *i.e.*, base gasoline, detergent-additized gasoline, or specified detergent-additized PRC, component, then the PTD for the commingled product must identify each such type of component contained in the commingled product.

(5) If the product being transferred is gasoline to which an oxygenate or a PRC has been added, the PTD for the gasoline must identify the oxygenate or PRC. The PTDs for commingled additized gasolines must identify all the oxygenates and PRCs added to either component.

(6) If the product being transferred is base gasoline, then in addition to the base gasoline identification, the following warning must be stated on the PTD: ''Not for sale to the ultimate consumer''. If, pursuant to § 80.173(a), the product being transferred is exempt base gasoline to be used for research, development, or test purposes only, the following warning must also be stated on the PTD: ''For use in research, development, and test programs only''.

(7) The name of the detergent additive as reported in its registration must be used to identify the detergent package on its PTD.

(8) If the product being transferred is leaded gasoline, then the PTD must disclose that the product contains lead and/or phosphorous, as applicable.

(9) If the product being transferred is gasoline or PRC that has been additized with detergent under a PADD-specific or CARB-based certification, or under a certification option which creates an oxygenate or PRC use restriction, then the PTD for the additized product must identify the applicable use restriction. The PTD for commingled additized gasolines or PRCs containing such restrictions must indicate the applicable restriction(s) from each component.

(10) If the product being transferred is detergent-additized gasoline or PRC that has been overadditized in anticipation of the later (or earlier) addition of PRC, then the PTD must include a statement that the product has been overadditized to account for a specified volume in gallons, or a specified percentage of the product's total volume, of additional, specified PRC.

(11) If a detergent package has been certified under only one certification option, and that option places a use restriction on the respective LAC, then the PTD must identify the detergent as use-restricted; the PTD for a detergent package certified with more than one LAC must identify that the detergent has special use options available.

(12) Base gasoline designated for fuel-specific certification.

(i) The PTD for segregated base gasoline intended for additization with a specific fuel-specific detergent pursuant to § 80.163(c) must indicate that it is for use with the designated, fuel-specific detergent.

(ii) A PTD for base gasoline may not indicate that the product is for use with a designated, fuel-specific detergent, unless the entire quantity of base gasoline is from the segregated fuel supply specified in the detergent's certification and the gasoline contains only those oxygenates or PRCs, if any, specified and approved in the detergent's certification.

(iii) If, pursuant to § 80.163(c)(3), the fuel-specific certification for the segregated pool of gasoline has established that no detergent additives are necessary for such gasoline to comply with this subpart, then the PTD must identify this gasoline as detergent-equivalent gasoline.

(b) *Use of product codes and other non-regulatory language.* (1) Product codes and other non-regulatory language may not be used as a substitute for the specified PTD warning language specified in paragraph (a)(6) of this section for base gasoline, except that:

(i) The specified warning language may be omitted for bulk transfers of base gasoline from a refinery to a pipeline if there is a prior written agreement between the parties specifying that all such gasoline is unadditized and will not be transferred to the ultimate consumer;

(ii) Product codes may be used as a substitute for the specified warning language provided that the PTD is an electronic data interchange (EDI) document being used solely for the transfer of title to the base gasoline, and provided that the product codes otherwise comply with the requirements of this section.

(2) Product codes and other non-regulatory language may not be used in place of the PTD language specified in paragraph (a)(11) of this section regarding detergent package use restrictions.

(3) Product codes and other language not specified in this section may otherwise be used to comply with PTD information requirements, provided that they are clear, accurate, and not misleading.

(4) If product codes are used, they must be standardized throughout the distribution system in which they are used, and downstream parties must be informed of their full meaning.

(c) *PTD exemption for small transfers of additized gasoline.* Transfers of additized gasoline are exempt from the PTD requirements of this section provided all the following conditions are satisfied:

(1) The product is being transferred by a distributor who is not the product's detergent blender; and

(2) The recipient is a wholesale purchaser-consumer (WPC) or other ultimate consumer of gasoline, for its own use only or for that of its agents or employees; and

(3) The volume of additized gasoline being transferred is no greater than 550 gallons.

(d) *Recordkeeping Period.* Any person creating, providing or acquiring product transfer documentation for gasoline, detergent, or detergent-additized PRC shall retain the documents required by this section for a period of five years from the date the product transfer

documentation was created, received or transferred, as applicable, and shall deliver such documents to EPA upon request. WPCs are not required to retain PTDs of additized gasoline received by them.

§ 80.172 Penalties.

(a) *General.* Any person who violates any prohibition or affirmative requirement of § 80.168 shall be liable to the United States for a civil penalty of not more than the sum of $25,000 for every day of such violation and the amount of economic benefit or savings resulting from the violation.

(b) *Gasoline non-conformity.* Any violation of § 80.168(a) shall constitute a separate day of violation for each and every day the gasoline in violation remains at any place in the gasoline distribution system, beginning on the day that the gasoline is in violation of the respective prohibition and ending on the last day that such gasoline is offered for sale or is dispensed to any ultimate consumer.

(c) *Detergent non-conformity.* Any violation of § 80.168(d) shall constitute a separate day of violation for each and every day the detergent in violation remains at any place in the gasoline or detergent distribution system, beginning on the day that the detergent is in violation of the prohibition and ending on the last day that detergent-additized gasoline, containing the subject detergent as a component thereof, is offered for sale or is dispensed to any ultimate consumer.

(d) *Post-refinery component non-conformity.* Any violation of § 80.168(e) shall constitute a separate day of violation for each and every day the PRC in violation remains at any place in the PRC or gasoline distribution system, beginning on the day that the PRC is in violation of the respective prohibition and ending on the last day that detergent-additized gasoline containing the PRC is offered for sale or is dispensed to any ultimate consumer.

(e) *Product transfer document non-conformity.* Any violation of § 80.168(c) shall constitute a separate day of violation for every day the PTD is not fully in compliance. This is to begin on the day that the PTD is created or should have been created and to end at the later of the following dates:

(1) The day that the document is corrected and comes into compliance; or

(2) The day that gasoline not additized in conformity with interim detergent program requirements, as a result of the PTD non-conformity, is offered for sale or is dispensed to the ultimate consumer.

(f) *Volumetric additive reconciliation recordkeeping non-conformity.* Any VAR recordkeeping violation of § 80.168(b) shall constitute a separate day of violation for every day that VAR recordkeeping is not fully in compliance. Each element of the VAR record keeping program that is not in compliance shall constitute a separate violation for purposes of this section.

(g) *Volumetric additive reconciliation compliance standard non-conformity.* Any violation of the VAR compliance standard established in § 80.170 shall constitute a separate day of violation for each and every day of the VAR compliance period in which the standard was violated.

(h) *Volumetric additive reconciliation equipment calibration non-conformity.* Any VAR equipment calibration violation of § 80.168(b) shall constitute a separate day of violation for every day a VAR equipment calibration requirement is not met.

§ 80.173 Exemptions.

(a) *Research, development, and testing exemptions.* Any detergent that is either in a research, development, or test status, or is sold to petroleum, automobile, engine, or component manufacturers for research, development, or test purposes, or any gasoline to be used by, or under the control of, petroleum, additive, automobile, engine, or component manufacturers for research, development, or test purposes, is exempted from the provisions of the detergent certification program, provided that:

(1) The detergent (or fuel containing the detergent), or the gasoline, is kept segregated from non-exempt product, and the party possessing the product maintains documentation identifying the product as research, development, or testing detergent or fuel, as applicable, and stating that it is to be used only for research, development, or testing purposes; and

(2) The detergent (or fuel containing the detergent), or the gasoline, is not sold, dispensed, or transferred, or offered for sale, dispensing, or transfer, from a retail outlet. It shall also not be sold, dispensed, or transferred or offered for sale, dispensing, or transfer from a wholesale purchaser-consumer facility, unless such facility is associated with detergent, fuel, automotive, or engine research, development or testing; and

(3) The party using the product for research, development, or testing purposes, or the party sponsoring this usage, notifies the EPA, on at least an annual basis and prior to the use of the product, of the purpose(s) of the program(s) in which the product will be used and the anticipated volume of the product to be used. The information must be submitted to the address or fax number specified in § 80.174(c).

(b) *Racing fuel and aviation fuel exemptions.* Any fuel that is refined, sold, dispensed, transferred, or offered for sale, dispensing, or transfer as automotive racing fuel or as aircraft engine fuel, is exempted from the provisions of this subpart, provided that:

(1) The fuel is kept segregated from non-exempt fuel, and the party possessing the fuel for the purposes of refining, selling, dispensing, transferring, or offering for sale, dispensing, or transfer as automotive racing fuel or as aircraft engine fuel, maintains documentation identifying the product as racing fuel, restricted for non-highway use in racing motor vehicles, or as aviation fuel, restricted for use in aircraft, as applicable;

(2) Each pump stand at a regulated party's facility, from which such fuel is dispensed, is labeled with the applicable fuel identification and use restrictions described in paragraph (b)(1) of this section; and

(3) The fuel is not sold, dispensed, transferred, or offered for sale, dispensing, or transfer for highway use in a motor vehicle.

(c) *California gasoline exemptions.* (1) Gasoline or PRC which is additized in the state of California is exempt from the VAR provisions in §§ 80.168 (b) and (e) and 80.170, provided that:

(i) For all such gasoline or PRC, whether intended for sale within or outside of California, records of the type required for California gasoline (specified in title 13, California Code of Regulations, section 2257) are maintained; and

(ii) Such records, with the exception of daily additization records, are maintained for a period of five years from the date they were created and are delivered to EPA upon request.

(2) Gasoline or PRC that is transferred and/or sold solely within the state of California is exempt from the PTD provisions of the detergent certification program, specified in §§ 80.168(c) and 80.171.

(3) Nothing in this paragraph (c) exempts such gasoline or PRC from the requirements of § 80.168 (a) and (e), as applicable. EPA will base its determination of California gasoline's conformity with the detergent's LAC on the additization records required by CARB, or records of the same type.

§ 80.174 Addresses.

(a) The detergent additive sample required under § 80.161(b)(2) shall be sent to: Manager, Fuels and Technical Analysis Group, Testing Services Division, U.S. Environmental Protection Agency, National Vehicle and Fuel Emissions Laboratory, 2565 Plymouth Road, Ann Arbor, Michigan 48105.

(b) Other detergent registration and certification data, and certain other information which may be specified in this subpart, shall be sent to: Detergent Additive Certification, Director, Fuels and Energy Division, U.S. Environmental Protection Agency (6406J), 401 M Street, SW., Washington, DC 20460.

(c) Notifications to EPA regarding program exemptions, detergent dilution and commingling, and certain other information which may be specified in this subpart, shall be sent to: Detergent Enforcement Program, U.S. Environmental Protection Agency, Suite 214, 12345 West Alameda Parkway, Denver, CO 80228, (FAX 303–969–6490).

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