package which act to prevent the formation of deposits, including, but not necessarily limited to, the actual detergent chemical and any carrier oil (if present) that acts to enhance the detergent's ability to control deposits.

Detergent-additized gasoline (also called *detergent gasoline*) means any gasoline that contains base gasoline and detergent.

Detergent-additized post-refinery component means any post-refinery component that contains detergent.

Distributor of detergent means any person who transports or stores or causes the transportation or storage of detergent at any point between its manufacture and its introduction into gasoline.

Fuel injector deposits (also known as *port fuel injector deposits* or *PFID*) means the deposits formed on fuel injector(s) during and after operation of a gasoline engine, as evaluated by the reduction in the gasoline flow rate through the fuel injector(s).

Gasoline means any fuel for use in motor vehicles and motor vehicle engines, including both highway and off-highway vehicles and engines, and commonly or commercially known or sold as gasoline. The term ''gasoline'' is inclusive of base gasoline, detergent gasoline, and base gasoline or detergent gasoline that has been commingled with post-refinery component.

Hand blending detergent facility means any facility (including, but not limited to, a truck or individual storage tank) at which detergent is blended with gasoline or post-refinery component by the manual addition of detergent, or at which detergent is blended with these substances by any means that is not automated.

Intake valve deposits (*IVD*) means the deposits formed on the intake valve(s) during operation of a gasoline engine, as evaluated by weight.

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.

Manufacturer of detergent means any person who owns, leases, operates, controls, or supervises a facility that manufactures detergent. Pursuant to the definition in 40 CFR 79.2(f), a manufacturer of detergent is also considered an additive manufacturer.

Post-refinery component means any gasoline blending stock or any oxygenate which is blended with gasoline subsequent to the gasoline refining process.

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.

[59 FR 54706, Nov. 1, 1994, as amended at 61 FR 35356, July 5, 1996]

§ 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) *Detergent registration requirements.* To be eligible for use by fuel manufacturers in complying with the gasoline detergency requirements of this subpart, a detergent additive package must be registered by its manufacturer under 40 CFR part 79 according to the specifications in paragraphs (c) (1) through (3) of this section. After evaluating the adequacy of registration data provided by the detergent manufacturer pursuant to these requirements, if EPA finds the data to be deficient, EPA may disqualify the detergent package for use in complying with the gasoline detergency requirements of this subpart, under the provisions of paragraph (g) of this section.

(1) *Compositional data.* The compositional data supplied to EPA by the additive manufacturer for purpose of registering a detergent additive package under § 79.21(a) of this chapter must include:

(i) A complete listing of the components of the detergent additive package, using standard chemical nomenclature when possible or providing the chemical structure of any component for which the standard chemical name is not precise. 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.

(iii) For each detergent-active component of the package, classification into one of the following designations:

(A) Polyalkyl amine;

(B) Polyether amine;

(C) Polyalkylsuccinimide;

(D) Polyalkylaminophenol;

(E) Detergent-active carrier oil; and

(F) Other detergent-active component.

(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) *Minimum recommended concentration.* (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.

(ii) The minimum concentration reported in the detergent registration according to the provisions of paragraph (c)(3)(i) of this section must also be communicated in writing by the additive manufacturer to each fuel manufacturer 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.

(iii) Pursuant to the requirements of paragraph (e) of this section, EPA may require the additive manufacturer to submit data to support the deposit control effectiveness of the detergent package at the specified minimum effective concentration. EPA may disqualify an additive for use in satisfying the requirements of this subpart upon finding that the supporting data is inadequate. Manufacturers may be subject to the liabilities and enforcement actions in §§ 80.156 and 80.159 if such a finding is made.

(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.

(v) A manufacturer may use a single set of test data to demonstrate the deposit control effectiveness of more than one registered detergent additive product, provided that:

(A) The additive products contain all of the same detergent-active components and no detergent-active components other than those contained in common; and

(B) The minimum concentration recommended for the use of each such additive product is specified such that, when each additive product is mixed in gasoline at the recommended concentration, each of its detergent-active components will be present at a final concentration no less than the lowest concentration for that component shown to be effective by the data available for the tested additive product.

(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) *Demonstration of deposit control efficiency*. At its discretion, EPA may require a detergent additive registrant to provide test data to support the deposit control effectiveness of a detergent at the minimum concentration recommended, pursuant to paragraph (c)(3) of this section and § 79.21(d) of this chapter. The required supporting data must be submitted to EPA within 30 days of receipt of EPA's request. EPA will notify the submitter, within 60 days after receiving the supporting data, whether the data is adequate to

support the deposit control efficiency claimed. Subject to the procedures specified in paragraph (g) of this section, if the supporting data are not submitted or if EPA finds the data insufficient, the detergent may be disqualified for use by fuel manufacturers in complying with the requirements of this subpart. EPA will use the following guidelines in determining the adequacy of the supporting data:

(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) EPA will evaluate the adequacy of other supporting data according to the following guidelines:

(i) Test fuel guidelines.

(A) The gasoline used in the supporting tests must contain the detergent-active components of the subject detergent additive package in an amount which corresponds to the minimum recommended concentrations recorded in the respective detergent registration, or less than this amount.

(B) The test fuels must not contain any detergent-active components other than those recorded in the subject detergent registration.

(C) The test fuels used must be reasonably typical of in-use fuels in their tendency to form deposits. Test fuel taken directly from commercial refinery production stock is acceptable. Specially refined low-deposit-forming fuels such as indolene are not acceptable. Other specially blended test fuels will be evaluated by EPA for acceptability based on the extent to which such fuels adequately represent the deposit-forming tendency of typical (average) in-use fuels, as reflected in the levels of the following fuel parameters: sulfur content, aromatic content, olefin content, T–90, and oxygenate content.

(D) The composition of the blended test fuel(s) 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. 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.

(ii) Test procedure guidelines.

(A) To be acceptable, test data submitted to support the deposit control effectiveness of a detergent additive must derive from testing conducted in conformity with good engineering practices.

(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. Engine-based tests may also be acceptable, assuming a reasonable correlation with vehicle-based tests and standards can be demonstrated. Bench test data may be acceptable to demonstrate fuel injector deposit control performance, assuming the results can be correlated with vehicle- or engine-based tests and standards. Bench testing will not be considered acceptable for demonstration of IVD control performance. Examples of acceptable test procedures are contained in the following references:

(*1*) Intake Valve Deposit Test Procedures:

(*i*) ''Intake Valve Deposits—Fuel Detergency Requirements Revisited'', Bill Bitting et al., Society of Automotive Engineers, SAE Technical Paper No. 872117, 1987.[1]

(*ii*) ''BMW—10,000 Miles Intake Valve Test Procedure'', March 1, 1991, Section 2257, Title 13, California Code of Regulations.

(*iii*)

(*iv*) ''Effect on Intake Valve Deposits of Ethanol and Additives Common to the Available Ethanol Supply'', Clifford Shilbolm et al., SAE Technical Paper Series No. 902109, 1990.

(*2*) Fuel Injector Deposit Test Procedures:

(*i*) ''Test Method for Evaluating Port Fuel Injector (PFI) Deposits in Vehicle Engines'', March 1, 1991, Section 2257, Title 13, California Code of Regulations.

(*ii*) ''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.

(*iii*) ''The Effects of Fuel Composition and Additives on Multiport Fuel Injector Deposits'', Jack Benson et al., SAE Technical Paper Series No. 861533, 1986.

(*iv*) ''Injector Deposits—The Tip of Intake System Deposit Problems'', Brian Taneguchi, et al., SAE Technical Paper Series No. 861534, 1986.

(C) For demonstration of carburetor deposit control performance, any generally accepted vehicle, engine, or bench test procedure 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 procedures listed above in paragraph (e)(2)(ii)(B)(*2*) of this section, are contained in the following references:

(*1*) ''Fuel Injector, Intake Valve, and Carburetor Detergency Performance of Gasoline Additives'', C.H. Jewitt et al., SAE Technical Paper No. 872114, 1987.

(*2*) ''Carburetor Cleanliness Test Procedure, State-of-the-Art Summary, Report: 1973–1981'', Coordinating Research Council, CRC Report No. 529.[3]

(f) *Detergent identification test procedure.* (1) At its discretion, EPA may require the additive registrant to submit an analytical procedure capable of identifying the detergent additive in its pure state. The test procedure will be due to EPA within 30 days of the registrant's receipt of the request. Subject to the provisions in paragraph (g) of this section, if the registrant fails to submit an analytical procedure, or if EPA judges a submitted procedure to be inadequate, EPA may deny or withdraw the detergent's eligibility to be used to satisfy the detergency requirements in this section.

(2) The analytical procedure submitted by the registrant must be able to both qualitatively and quantitatively identify each component of the detergent additive package. To be acceptable, the procedure must provide results that conform to reasonable and customary standards of repeatability and reproducibility, and reasonable and customary limits of detection and accuracy, for the type of test in question.

(3) A fourier transform infrared spectroscopy (FTIR)-based procedure, including an actual infrared spectrum of the detergent additive package and each component part of the detergent package obtained from this test method, is preferred.

(g) *Disqualification of a detergent additive package.* (1) When EPA makes a preliminary determination that a detergent additive registrant has failed to comply with the requirements of paragraph (c), (d)(3)(ii), (e), or (f) of this section, either by failing to submit required information for a subject detergent additive or by submitting information which EPA deems inadequate, EPA shall notify the additive registrant by certified mail, return receipt requested, setting forth the basis for that determination and informing the registrant that the detergent may lose its eligibility to be used to comply

[1] Society of Automotive Engineers (SAE), 400 Commonwealth Drive, Warrendale, PA 15096–0001.

[2] [Reserved]

[3] Coordinating Research Council Inc. (CRC), 219 perimeter Center Parking, Atlanta, Georgia, 30346.

with the detergency requirements of this section.

(2) If EPA determines that the detergent registration was created by fraud or other misconduct, such as a negligent disregard for the truthfulness or accuracy of the required information or of the application, the detergent registration will be considered void *ab initio* and the revocation of qualification will be retroactive to January 1, 1995 or the date on which the additive product was first registered, whichever is later.

(3) The registrant 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 data requirements which provide the basis for the proposed disqualification. If the registrant 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 by operation of law and the Administrator shall notify the registrant of such disqualification. If the registrant 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 registrant before taking final action concerning the proposed disqualification. All correspondence regarding a disqualification must be sent to the address specified in § 80.174(b).

(4) As part of a written response to a notice of intent to disqualify, a registrant may request an informal hearing concerning the notice. Any such request shall state with specificity the information the registrant 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 registrant has complied with the specific data 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 shall consider all relevant evidence and arguments presented at the hearing in making a final decision concerning a proposed cancellation.

(5) If a registrant who has received a notice of intent to disqualify submits a timely written response, and the Administrator 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 shall issue a final disqualification order, forward a copy of the disqualification order to the registrant by certified mail, and promptly publish the disqualification order in the FEDERAL REGISTER. Any disqualification order issued after receipt of a timely written response by the registrant shall become legally effective five days after it is published in the FEDERAL REGISTER.

(6) Upon making a final decision to disqualify a detergent additive package pursuant to this paragraph (g), EPA shall inform all fuel manufacturers and secondary additive manufacturers whose product registrations report the potential use of the disqualified detergent that such detergent is no longer eligible for compliance with the requirements of this subpart. Such fuel manufacturers and secondary additive manufacturers shall have 45 days in which to stop using the ineligible detergent additive package and substitute an eligible detergent additive. When applicable, EPA shall also notify such parties that the detergent registration had been created by fraud or other misconduct, pursuant to paragraph (g)(2) of this section.

[59 FR 54706, Nov. 1, 1994, as amended at 61 FR 35356, July 5, 1996; 61 FR 58747, Nov. 18, 1996]

§§ 80.142–80.154 [Reserved]

§ 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