

Hope, Jr. (Appointive), seconded by Director Robert L. Clarke (Comptroller of the Currency), concurred in by Chairman L. William Seidman, Vice Chairman Andrew C. Hove, Jr. and Director T. Timothy Ryan, Jr. (Director of the Office of Thrift Supervision), that Corporation business required its consideration of the matters on less than seven days' notice to the public; that no earlier notice of the meeting was practicable; that the public interest did not require consideration of the matters in a meeting open to public observation; and that the matters could be considered in a closed meeting by authority of subsections (c)(4), (c)(8), (c)(9)(A)(ii), (c)(9)(B), and (c)(10) of the "Government in the Sunshine Act" (5 U.S.C. 552b (c)(4), (c)(8), (c)(9)(A)(ii), (c)(9)(B), and (c)(10)).

The meeting was held in the Board Room of the Federal Deposit Insurance Corporation Building located at 550—17th Street NW., Washington, DC.

Dated: February 26, 1991.

Resolution Trust Corporation.

John M. Buckley, Jr.,  
Executive Secretary.

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# Registered Federal Reporter

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**Friday  
March 1, 1991**

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## **Part II**

### **Department of Health and Human Services**

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**Health Care Financing Administration**

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**42 CFR Parts 400, et al.**

**Medicare and Medicaid Programs; OBRA  
'87 Conforming Amendments; Final Rule**



# DEPARTMENT OF HEALTH AND HUMAN SERVICES

## Health Care Financing Administration

42 CFR Parts 400, 405, 406, 408, 409, 410, 413, 416, 417, 424, 430, 431, 435, 436, 440, 441, 447, 455, 482, 485, 489, 491, and 498

[BPD-484-FC; RIN 0938-AD92]

## Medicare and Medicaid Programs; OBRA '87 Conforming Amendments

**AGENCY:** Health Care Financing Administration (HCFA), HHS.

**ACTION:** Final rule with comment period.

**SUMMARY:** These regulations amend certain sections of Medicare and Medicaid rules to reflect 15 self-executing provisions of the Omnibus Budget Reconciliation Act of 1987 (OBRA '87) and changes made by sections 102, 103, and 211(b) of the Medicare Catastrophic Coverage Act of 1988 (MCCA), section 608(d)(3)(G) of the Family Support Act of 1988 (Pub. L. 100-485), and sections 6113 and 6301 of the Omnibus Budget Reconciliation Act of 1989 (OBRA '89). They also clarify related rules.

The amendments are needed to make HCFA rules consistent with current provisions of law and to ensure that users of the regulations are not confused by outdated provisions or unclear language. This document also makes technical amendments, primarily to correct internal cross-references, make nomenclature changes, and revise an outdated definition.

### DATES:

**Effective date:** These regulations are effective April 1, 1991.

**Comment date:** We will consider comments received by April 30, 1991.

**ADDRESSES:** Mail comments to the following address: Health Care Financing Administration, Department of Health and Human Services, Attention: BERC-484-FC, P.O. Box 26676, Baltimore, Maryland 21207.

If you prefer, you may deliver your comments to one of the following addresses:

Room 309-G, Hubert H. Humphrey Building, 200 Independence Ave., SW., Washington, DC

or

Room 132, East High Rise Building, 6325 Security Boulevard, Baltimore, Maryland.

In commenting, please refer to file code BERC-484-FC. Comments received timely will be available for public inspection as they are received, beginning approximately three weeks

after publication of this document, in room 309-G of the Department's offices at 200 Independence Ave., SW., Washington, DC, on Monday through Friday of each week from 8:30 a.m. to 5 p.m. (phone: 202-245-7890).

**FOR FURTHER INFORMATION CONTACT:** Luisa V. Iglesias (202) 245-0383.

**SUPPLEMENTARY INFORMATION:** Of the 15 provisions noted under SUMMARY, seven affect the Medicare program, and eight, the Medicaid program. Of the seven Medicare provisions, 3 expand coverage of services, and the other four—

- Make the Part B deductibles and coinsurance applicable to ambulatory surgical center (ASC) physician services.
- Remove the requirement, that as a condition for a hospital to participate in Medicare, hospital inpatients other than those who are Medicare beneficiaries must be "under the care of a physician";
- Extend, for one more year, the basis for computing the supplementary medical insurance (SMI) premiums and the "hold harmless" provision applicable when there is no cost-of-living increase in social security monthly benefits; and
- Change the method for determining payment for hospital outpatient radiology services and other diagnostic procedures.

Of the eight provisions that affect Medicaid, two expand coverage of services, three deal with waivers of the State plan requirements that are set forth in section 1902 of the Act, one requires disregard of certain supplemental security income (SSI) benefits for beneficiaries in institutions, and one pertains to organ transplant procedures. The eighth provision amends title XVI of the Act with respect to monthly SSI payments to beneficiaries in medical institutions.

Sections 103 and 211 of the MCCA affect the determination of Medicare Part A and Part B premiums, and the date for promulgation of the Part A premium.

The changes we have made in the rules, to reflect these self-executing provisions of the law and to clarify other related regulations, are discussed below. References to "the Act" are to the Social Security Act. Sections without specific statutory citation are sections of OBRA '87.

## I. Expansion of Medicare Coverage

### A. Services of Podiatrists

#### 1. Statutory Provision

Section 4039(b) amends paragraph (3) of section 1861(r) of the Act (definition

of physician) to remove the requirement that the activities of a doctor of podiatric medicine "be consistent with the policy of the institution with respect to which he performs them" for purposes of the provisions of the Act that pertain to utilization review, home health services, outpatient physical therapy, and certification by a physician as to a patient's need for care.

#### 2. Changes in the Regulations

a. *To reflect changes in the law.* This section required us to remove all provisions stating that a podiatrist's activities must be "consistent with the policy of the institution \* \* \*" which appeared in §§ 409.42(d), 424.11(e), 424.22(a), and 424.24(c). (Previous §§ 405.1625, 405.1633, and 405.1634 were redesignated as §§ 424.11, 424.22, and 424.24 by final rules published on March 2, 1988 at 43 FR 6629.) The revised rules specify that a doctor of podiatric medicine may perform only those plan of treatment functions that are consistent with the functions he or she is authorized to perform under State law.

b. *Technical and editorial revisions of pacemaker rules.* In amending part 409, we noted that the rules on cardiac pacemakers and pacemaker leads contained repetition and unclear cross-references. In order to improve readability and ease of comprehension, we revised §§ 409.19 and 410.64 to provide a more logical organization, clarify cross-references, and simplify presentation. No substantive change is intended.

### B. Outpatient Psychiatric Services

#### 1. Statutory Provisions

Sections 4070 (a)(1) and (c)(1) of OBRA '87 amended section 1833(d) of the Act to increase the dollar limit for expenses incurred during a calendar year for outpatient psychiatric treatment from \$312.50 to \$562.50 for 1988, and to \$1,375 for subsequent calendar years. Section 6113 of OBRA '89 further amended section 1833(d) of the Act to remove the dollar limit but retain the 62½ percent limit, to be applied to "incurred expenses".

#### 2. Changes in the Regulations

The provisions discussed are above reflected in changes to §§ 410.152 and 410.155.

### C. Comprehensive Outpatient Rehabilitation Facility (CORF) Services

#### 1. Statutory Provisions

Section 4078 amends section 1862(cc) of the Act to provide that Medicare Part B may pay for physical therapy,



occupational therapy, and speech pathology services furnished by a CORF outside its own premises if—

- The plan of treatment requirement is met; and
- The services are not otherwise paid for under Medicare.

Under previous law, all CORF services (except a single home visit if necessary to evaluate the impact of the home environment on the rehabilitation goals) had to be furnished on the premises of the CORF.

## 2. Changes in the Regulations

To reflect the section 4078 provision, we have amended §§ 410.105(b) and 485.58.

## II. Medicare: Miscellaneous Changes

### A. "Under the Care of a Physician"

#### 1. Statutory Provision

Section 1861(e) of the Act sets forth the conditions an institution must meet in order to participate in Medicare as a hospital. One of those conditions, which has been in effect since the beginning of the program, is that the institution have a requirement that each inpatient be under the care of a physician. Section 4009(f) amends section 1861(e)(4) to make that requirement applicable only to patients who are Medicare beneficiaries.

#### Change in the Regulation

This amendment required a change in § 482.12 of the conditions of participation for hospitals.

### B. Medicare Premiums

#### 1. Statutory Provisions

a. *Medicare Part A premiums.* Section 103 of the MCCA amends section 1818 of the Act to change the promulgation date and the formula for computing the monthly premium for those individuals who can become entitled to Medicare Part A only by paying a premium.

b. *Part B premiums.* The provision for making the SMI premium equal to 50 percent of the actuarial rate for the aged, that is, 50 percent of the estimated expenditures for services furnished to enrollees age 65 and over (section 1839(e) of the Act) was extended through 1989 by section 4080 of OBRA '87, and through 1990 by section 6301 of OBRA '89.

c. *Hold harmless provision.* The "hold harmless" provision limits the premium increase when there is no cost-of-living increase in social security monthly benefits (section 1839(f) of the Act). This provision was extended for one more year by section 4080 of OBRA '87, and made permanent by section 211(b) of the MCCA.

Under this provision, for individuals who are eligible for Social Security cash benefits for both November and December of a calendar year, there are limits on premium increases. The Part B premiums of those individuals cannot be increased to the point where, because of that increase, the Social Security cash benefit paid for December (the check received in January) is less than the benefit paid for November (the check received in December).

In amending section 1839(f), of the Act, section 211(b) changed "monthly benefit" to "amount of benefits payable". "Monthly benefit" had always been interpreted to mean the amount to which the beneficiary was entitled, regardless of how much was actually paid. The change to "amount payable" permits application of the hold harmless provision even if the payable benefit is also reduced because of government pension offset or workers' compensation payments.

## 2. Changes in the Regulations

In order to avoid confusion, the section 1818 changes made by the MCCA and the section 1839 changes made by the three cited laws are reflected in these final regulations through amendments to §§ 406.22 and 408.20, respectively.

### C. Deductibles and Coinsurance: ASC Services

#### 1. Statutory Provisions

Section 9343(e) of OBRA '86, as amended by section 4085(i)(21)(D) of OBRA '87, amended section 1833 (a) and (b) of the Act to rescind the exemption of ASC facility services from the Part B annual deductible and coinsurance. OBRA '86 did not specify an effective date for this provision. However, on the basis of congressional advice, we determined that the intent was to make the provision effective for services furnished on or after July 1, 1987.

Section 4054 of OBRA '87 was later renumbered 4055 because of duplication of 4052. This section, as amended by section 411(f)(12) of the MCCA, amended sections 1833 (a) and (b) of the Act to make the Part B deductible and coinsurance provisions applicable to ASC physician services, that is, to physician services performed (in an ASC or in a hospital on an outpatient basis) in connection with surgical procedures approved for reimbursement in ASCs. This change is effective for services furnished on or after April 1, 1988.

## 2. Changes in the Regulations

In order to reflect both the OBRA '86 and the OBRA '87 provisions, and to clarify some confusing aspects of the rules that pertain to ASC services, we have amended §§ 410.152, 410.155 and 410.160 and made the following changes in Part 416:

a. Designated the sections under 5 subparts instead of 3 to facilitate reference to particular aspects.

b. In Subpart A—

- Revised § 416.1 to provide a single comprehensive "Basis and scope" section applicable to the whole part.

- Corrected cross reference in § 416.2.

- Removed § 416.3, as inconsistent with current law, which makes the deductible and coinsurance provisions applicable to ASC services.

c. In subpart B—

Revised the heading to reflect the fact that the "conditions for coverage" are being designated under a new subpart C.

- Removed § 416.20 as duplicative of revised § 416.1.

- Revised § 416.25 and added a new § 416.26 to separate the basic requirements from the procedures for qualifying to participate in Medicare as an ASC.

- Revised § 416.30 to reflect the changes in the deductible and coinsurance provisions of the law, to conform paragraph (f) to the changes being made in § 416.120, as discussed later in this preamble, to change "prospectively" to "next" in paragraph (f)(1) to make clear when the agreement is effective, and to correct internal cross-references.

- In § 416.35, changed future tense to present indicative for consistency with the rest of these rules.

- Moved the content of § 416.39 (deeming of compliance) to the new § 416.26, since "deeming" is one way to qualify to participate as an ASC.

- Designated the "scope of benefits" provisions under a new subpart D, and the "payment" provisions under a new subpart E.

d. In the newly designated subpart D, revised §§ 416.60 and 416.61—

- To eliminate repetition and provide paragraph headings to guide the reader;

- Make clear that, although payment differs depending on where the services are furnished, the scope is the same;

- Reflect the fact that the provisions apply not just to ASC services but also to services furnished in hospital outpatient departments; and

- To specify that intra-ocular lenses are covered.

e. In the redesignated subpart E—



• Removed § 416.100 as duplicative of revised § 416.1.

• Removed § 416.110 as inconsistent with current law.

• Revised § 416.120 as follows:

a. To remove paragraph (b) because the HAASC classification, originally established to make clear that a hospital component furnishing ambulatory surgery could be owned and operated as part of the hospital, does not represent a valid distinction. The fact is that all Medicare participating ASCs, regardless of whether they are "independent" or owned by a hospital, must meet the same participation requirements and are paid in the same manner. A hospital component that furnishes ambulatory surgical services may be considered by the hospital to be part of its outpatient department or a separate entity. If the component is considered to be part of the hospital outpatient department, the ambulatory surgical services are covered and paid for as hospital outpatient services. If the component is considered a separate entity, it must be certified as an ASC and is paid under the ASC rules.

b. To clarify policy on payment for multiple surgical procedures performed at a single operative session (paragraph (c)).

• Made minor editorial changes in § 416.125.

• In §§ 416.130 and 416.140, changed future tense to present indicative for consistency with the rest of these rules, and made clarifying editorial changes in § 416.140.

#### *D. Application of Blood Deductible*

##### *1. Statutory Provisions*

a. Section 102 of the MCCA amends section 1813(a)(2) of the Act to provide that the Medicare Part A blood deductible shall be reduced to the extent that a blood deductible has been applied under Medicare Part B.

b. Section 608(d)(3)(G) of the Family Support Act of 1988, enacted October 13, 1988, amends section 104 of the MCCA to add a new subsection (d)(7) which, in turn, amends section 1833(b) of the Act to provide that the Part B blood deductible shall be reduced to the extent that a blood deductible has been applied under Medicare Part A.

##### *2. Changes in the Regulations*

a. In § 409.87, we have revised paragraphs (a)(3) and (a)(6).

b. In § 410.161, we have made a conforming technical amendment, which appears at the end of the rules text with other technical amendments.

c. In part 489, we have revised section 489.31.

#### *E. Partial Hospitalization Services*

##### *1. Statutory Provisions*

Section 4070(b), as amended by section 411(h)(1)(B) of the MCCA, amends the definitions section of the Medicare title as follows:

a. Amends section 1861(s)(2)(B) of the Act to provide that partial hospitalization services incident to physician services, furnished by a hospital to its outpatients, are covered as medical and other health services.

b. Adds to section 1861 a new subsection (ff) to—

1. Define "partial hospitalization services" as a program that is furnished by a hospital to its outpatients and is a distinct and organized intensive ambulatory treatment program offering less than 24-hour-daily care;

2. Specify eight services included in partial hospitalization services;

3. Provide that the Secretary may add other services, with the exception of meals and transportation;

4. Require that the services be—

• Reasonable and necessary for the diagnosis or active treatment of the individual's condition;

• Reasonably expected to improve or maintain the individual's condition and functional level and to prevent relapse or hospitalization; and

• Furnished pursuant to such guidelines relating to frequency and duration of services as are established by regulation, taking into account accepted norms of medical practice and the reasonable expectation of patient improvement; and

5. Require that the services be prescribed by a physician under a written individualized plan of treatment that (1) is established and periodically reviewed by a physician, in consultation with appropriate staff participating in the program and (2) sets forth the physician's diagnosis, the type, amount, duration, and frequency of the services and the goals for treatment under the plan.

At this time we do not consider it desirable to establish by regulation specific limits on the frequency and duration of these services. We believe that the physician who establishes and reviews the plan of treatment can best determine what is necessary and appropriate for each patient.

Accordingly, the guidelines in these rules make the physician responsible for specifying how often and for how long partial hospitalization services are to be furnished to each patient. If experience indicates the need to regulate this aspect, we would follow the notice and opportunity for comment procedures. In the meantime, we plan to seek a

technical amendment that would authorize but not require the Secretary to issue additional guidelines. Section 4070(b) also amends section 1835(a)(2) by adding a new subparagraph (F) to require that, as a condition for Medicare payment, a physician certify that—

a. The individual would require inpatient psychiatric care in the absence of partial hospitalization services;

b. An individualized written plan of care has been established and is reviewed periodically by a physician; and

c. The services are or were furnished while the individual is or was under the care of a physician.

(Physician certification is not required for any other "incident to" services.)

##### *2. Changes in the Regulations*

a. In § 410.2 we have inserted a definition of "partial hospitalization services".

b. In § 410.10 we have made a conforming change in paragraph (c).

c. In § 410.27, we have added a new paragraph (d) to specify the conditions for coverage of these services. This paragraph would be amended later if it is found necessary to establish limits on the frequency and duration of these services.

d. In § 424.24, we have made conforming changes in paragraphs (a) and (b) and added a new paragraph (e) to set forth the physician certification and plan of treatment requirements for these services.

#### *F. Delayed Action Amendment*

Section 4033 amends section 226(f) of the Act to permit months from a previous period of disability benefit entitlement to be counted in determining when Medicare Part A may begin for an individual who becomes disabled more than 60 months (84 months if previous entitlement was as a disabled child, widow, or widower) after the month in which the previous period of disability benefit entitlement ended. The earlier months of disability may be counted only if the physical or mental impairment that is the basis for the current disability is the same as or directly related to the impairment that was the basis for the previous period of entitlement to disability benefits.

The amendment applies only if the previous period of disability benefit entitlement ended on or after February 21, 1988. This, in conjunction with the requirement that the previous period must have ended more than 60 or 84 months before the onset of the current disability, means that the earliest anyone could qualify for Medicare Part



A under the section 4033 amendment is March 1993, or March 1995 if previous entitlement was as a disabled child, widow, or widower.

We have made no changes in the regulations because we anticipate that further changes will be made in the law before 1993.

### III. Expansion of Medicaid Coverage

#### A. Services of Dentists

##### 1. Statutory Provision

Section 4103 amends section 1905(a)(5) of the Act to require the State Medicaid plan to include medical and surgical services furnished by a dentist, if under State law those services may be performed either by a doctor of medicine or a doctor of dental surgery or dental medicine, and would be considered physicians' services if furnished by a physician.

The requirement is effective for calendar quarters beginning on or after January 1, 1988. However, the law makes special provision for States that must seek legislative action (for purposes other than appropriation of funds) before they can amend their State plans. In those circumstances, the State plan would not be considered to be out of compliance with the title XIX requirements until the first day of the first quarter that begins after the close of the first regular legislative session that begins after enactment of the provision (December 22, 1987).

##### 2. Changes in the Regulations

This additional Medicaid coverage is shown in revised § 440.50.

#### B. Clinic Services

##### 1. Statutory Provision

Section 4105 amends the definition of "clinic services" (section 1905(a)(9) of the Act) to clarify that the term includes services furnished outside the clinic, by clinic personnel, to an eligible individual who does not reside in a permanent dwelling or does not have a fixed home or mailing address.

##### 2. Changes in the Regulations

This provision required that we amend § 440.90, which defines "clinic services".

We are amending the clinic definition to reflect the recent legislative change, and to clarify that this represents an exception to the general coverage requirement for services to be furnished on the premises of the clinic. Clinic services have always been limited to people who go to the clinic (or a satellite location) and get the services onsite. In regulations this result was achieved by virtue of defining the services as

furnished "to outpatients." The outpatient definition (§ 440.2) originally was written in terms of a patient who is receiving services "at an organized medical facility." In BERC-513-F, a regulation which grew out of the regulatory reform effort, we revised the outpatient definition from a patient receiving services "at" an organized medical facility to a patient "of" an organized medical facility (52 FR 47934, December 17, 1987). This change had the unintended effect of creating confusion in the context of the clinic benefit over whether services still had to be furnished on the premises of a clinic in order to be covered under the clinic benefit. It was never our intention to rescind the onsite requirement, and we are not aware of any changes made by States in clinic coverage as a result of the revision to the outpatient definition. Accordingly, we are correcting our error in this regulation. We would note that, in enacting the recent provision for coverage of clinic services for homeless individuals, Congress has now established an explicit exception to the normal requirement that clinic services be furnished onsite in order to be covered, thus ratifying the current requirement that other services must be furnished onsite.

### IV. Medicaid: Waivers of State Plan Requirements

#### A. Freedom of Choice of Providers of Family Planning Services

##### 1. Statutory Provisions

Section 1915(b) of the Act, which authorizes the Secretary to waive State plan requirements set forth in section 1902 of the Act, specifies that no such waiver may restrict an individual's freedom of choice of providers of family planning services.

Subsequent amendments to the Act have retained or extended this rule, as shown below.

a. Section 9508(a) of the Consolidated Omnibus Budget Reconciliation Act (COBRA) of 1985 amended section 1915 of the Act to provide, effective April 7, 1986, that a State—

- Could furnish case-management services as medical assistance, with a waiver of the State-wideness and comparability of services requirements; but

- Could not, with respect to an individual receiving case-management services, restrict that individual's freedom of choice of providers of family planning services.

b. OBRA '87 sections 4113 (c)(1) and (c)(2) amend sections 1902(a)(23) and 1902(e)(2)(A) of the Act, respectively, to

apply this rule effective for services furnished on or after July 1, 1988.

The amendment to section 1902(a)(23) of the Act provides that a Medicaid recipient enrolled in a primary care case-management system, an HMO, or a similar entity, may not be restricted in his or her freedom of choice of providers of family planning services.

The amendment to section 1902(e)(2)(A) of the Act excludes family planning services from the restriction imposed on HMO enrollees who lose Medicaid eligibility but are deemed to continue to be eligible for the remainder of a minimum HMO enrollment period. The restriction is that the enrollee is eligible only for services furnished by the HMO. Under the amendment, the enrollee is free to seek family planning services from any qualified provider.

##### 2. Changes in the Regulations

These provisions required us to amend §§ 431.51 and 435.212. In § 431.51(b)(1), we have added language to counteract a misunderstanding that has arisen in the past: freedom of choice does not obligate a Medicaid provider to furnish services to every recipient. Within specified limits, a recipient may seek to obtain services from any qualified provider, but the provider determines whether to furnish services to the particular recipient. This is consistent with the language of § 1902(a)(23) of the Act; " \* \* \* who undertakes to provide him such services."

#### B. Extension of Special Waivers to the Northern Mariana Islands

##### 1. Statutory Provision

Section 4116 amends section 1902(j) of the Act to extend the waiver provisions of that section to the Northern Mariana Islands.

##### 2. Changes in the Regulations

In § 431.56, we have added "Northern Mariana Islands" where appropriate.

#### C. Time Allowed for Decision on Waiver Requests

##### 1. Statutory Provision

Section 4118(l) amends section 1915(h) of the Act to provide that—

- A request for continuation of a section 1915 waiver shall be deemed granted unless, within 90 days, the Secretary denies the request or requests additional information; and

- If the Secretary requests additional information, the 90 days allowed for the Secretary to reach a decision begin anew when he or she receives the additional information. This is



consistent with the time frames already applicable to initial waiver requests.

## 2. Changes in the Regulations

This provision highlighted the need to set forth the procedures that HCFA follows in processing waiver requests. This need is met by adding a new § 430.25, in which paragraph (f) reflects the amendment discussed above. Except for paragraph (f), the new § 430.25 is merely a codification of practice that has long been in effect but had not been set forth in regulations.

We also noted that Subpart B of Part 431 (which deals with exceptions and waivers) needed clarification and updating. The specific changes in Subpart B include the following:

a. A new § 431.40 to set forth the basis and scope of the subpart.

b. Revision of §§ 431.50(c) and 431.51 for consistency in dealing with "exceptions".

c. Removal of outdated content:

- References to title IV-E children are removed from § 431.52 (Payment for out-of-State services) because, under section 1902(a) of the Act, the State where these children reside is responsible for providing their Medicaid services.

- References to section 1903(m) waivers are removed from § 431.55 because those waivers had to be in place before August 10, 1982 and could not be renewed.

- The presumed exception that would permit a State to limit payment for rural health clinic services to services provided by a rural health clinic (paragraph (c) of § 431.54) is removed because, by definition (§ 440.20(b)), "rural health clinic services" are already limited to services "furnished by a rural health clinic".

d. Editorial revisions that clarify the rules and follow the general style conventions of HCFA rules, such as—

- Reduction of overlong sentences (70 to 100 words) in § 431.55(c) and (e).

- Use of active voice and present tense rather than passive voice and future tense.

- More designated items and more headings to guide the reader.

## V. Medicaid: Post-Eligibility Treatment of Income of Individuals in Institutions

### 1. Background

a. Title XIX of the Act and the Medicaid regulations provide for mandatory and optional disregards of certain amounts of income of individuals who are in institutions. These disregards help to determine how much of a recipient's income is applied to the cost of institutional care.

b. Final regulations published on February 8, 1988 (53 FR 3586), to be

effective April 8, 1988, amended Medicaid rules with the intent of making optional for States what had previously been required: The disregard of income needed to cover expenses incurred for necessary medical and remedial care recognized under State law but not included in the State Medicaid plan.

c. The statutory amendments discussed below made it necessary to restore the requirement that the February 8 rules would have made optional, and to make other changes in the regulations pertaining to treatment of income of individuals in institutions.

### 2. Statutory Provisions

a. Section 303(d) of the Medicare Catastrophic Coverage Act of 1988 (Pub. L. 100-360, commonly referred to as the MCCA) amended section 1902 of the Act to add a new subsection (r), which was redesignated as (r)(1) by section 303(e)(5) of the same law. Subsection (r)(1) requires disregard of income needed for the type of expenses noted in 1. b. above. Since the change in the law was made effective on April 8, 1988, the result is that the February 8 provision never went into effect and the previous disregard requirement continues without interruption. (Section 303(a)(1)(B) of the MCCA added to the Act a new section 1924 that also affects posteligibility treatment of the income and resources of an institutionalized spouse and of the spouse who remains in the community. The new provisions are being implemented by States under general instructions and will be codified in the CFR through other regulations identified as BPD-609-P.)

b. Section 9115 of OBRA '87 amends section 1611(e)(1) of the Act to provide, in subparagraph (G), that full SSI and SSP benefits be continued for up to three months after the beneficiary enters a medical institution if specified conditions are met. Section 9115 also amends section 1902(o) of the Act (which already required disregard of any SSI and SSP benefits continued under section 1611(e)(1)(E) of the Act) to require that, in determining the amount of any post-eligibility contribution by the individual to the cost of care and services, the full SSI and SSP benefits continued under section 1611(e)(1)(G) of the Act also be disregarded.

c. Section 9119 amends title XVI (SSI) of the Act to increase the monthly SSI payment to recipients in medical institutions from \$25 to \$30 for individuals, and from \$50 to \$60 for couples.

As enacted, section 9119 did not amend the Medicaid law. However, section 411(n)(3) of Pub. L. 100-360 adds

to section 1902 a new subsection (q) which—

- Requires Medicaid personal needs allowances of at least \$30 for an individual and \$60 for a couple; and
- Makes the amendment effective for Medicaid payments made on or after July 1, 1988.

Previous regulations specified minimum personal allowance amounts for the 50 States, the District of Columbia, American Samoa, and the Northern Mariana Islands, but not for Puerto Rico, the Virgin Islands, and Guam. Now that minimum amounts are required by law, they must be applied also to the latter three jurisdictions. Disregard of continued SSI or SSP payments does not apply because the SSI program is not in effect in those three jurisdictions.

### 3. Changes in the Regulations

a. Sections 435.725 and 435.733 of the Medicaid rules are revised to provide that, in determining the amount that a recipient in a medical institution will contribute to the cost of institutional care, the full SSI and SSP benefits continued under sections 1611(e)(1) (E) and (G) of the Act must be disregarded.

b. Sections 435.725, 435.733, 435.832, and 438.832 of the Medicaid rules are revised—

- To require a minimum personal needs allowance of \$30 for individuals and \$60 for couples; and
- To conform to section 1902(r)(1) by revising the paragraphs that deal with expenses incurred for necessary medical and remedial care recognized under State law but not included in the State Medicaid plan, to restore the requirement that was in effect before publication of the February 8 rules.

## VI. Medicaid—Requirements for Organ Transplant Procedures

### A. Statutory Provisions

COBRA section 9507(a) amended section 1903(i) of the Act to add a new paragraph (1) under which FFP would be denied for organ transplant procedures after December 1986 unless—

1. The State plan provides for written standards for coverage of those procedures; and
2. Those standards provide that—
  - Similarly situated individuals are treated alike; and
  - Any restriction on the facilities or practitioners that may provide such procedures is consistent with the accessibility of high quality care to individuals eligible for the procedures under the plan.



OBRA '87 section 4118(d), through a technical amendment made effective as though it had been enacted with COBRA, added, at the end of the paragraph (i):

Nothing in paragraph (1) shall be construed as permitting a State to provide services under its plan under this title that are not reasonable in amount, duration, and scope to achieve their purpose.

#### B. Changes in the Regulations

Section 441.10 has been amended and a new § 441.35 has been added to reflect both of the statutory amendments.

#### VII. Medicare—Payment for Hospital Outpatient Radiology and Other Diagnostic Services

##### 1. Statutory Provisions

Part B of the Medicare program covers medical and other health services as defined in section 1861(s) of the Act. The method for determining payment for covered radiology services and other diagnostic procedures furnished by a hospital on an outpatient basis has changed as a result of section 4066 of OBRA '87. Specifically, section 4066 (which was subsequently amended by section 411(g)(4) of the Medicare Catastrophic Coverage Act of 1988) amends section 1833 of the Act to add a new subparagraph (a)(2)(E) and a new subsection (n) that change the basis for Medicare payment—

- For outpatient hospital radiology services furnished on or after October 1, 1988; and
- For certain other diagnostic procedures (as defined by the Secretary) furnished on or after October 1, 1989.

##### 2. Changes in the Regulations

The new method determines payment to the hospital partly on the basis of the prevailing charges in the locality for the same services furnished by physicians in their offices. The law provides that the prevailing charge portion of the radiology payment is computed on the basis of "62 percent \* \* \* of 80 percent of the prevailing charge \* \* \* for participating physicians for the same services \* \* \*". The 62 percent adjustment is necessary to exclude the professional component of the prevailing charge, and the 80 percent adjustment excludes beneficiary coinsurance amounts. The order of the computation as stated in the law does not properly take into account the Part B annual deductible which must be subtracted from the technical component of the professional charge before the coinsurance adjustment is made. We do not believe that Congress intended to change the way that Part B

deductible and coinsurance are applied in determining Medicare payment. We have made this clear in a new § 413.122 which conforms to current billing practices for outpatient radiology and for other diagnostic procedures. The section 4066 changes also required us to amend § 413.13(c) to specify that these costs are aggregated and treated separately from all other hospital costs.

#### VIII. Medicare—Physician Certification of Need for Services

As noted above, final rules published on March 2, 1988 redesignated subpart P of part 405 of the Medicare rules under a new part 424—Conditions for Medicare Payment. We requested comments from any reader who believed that, in the process of simplifying, clarifying, and redesignating the old rules we had unintentionally made substantive changes not discussed in the preamble.

We received two comments (from a national professional association and a law firm) indicating that the following change was substantive.

Previous § 405.1625 stated:

(a) The health insurance program recognizes the physician as the key figure in determining utilization of health services; the physician decides upon admission to a hospital, orders tests, drugs, and treatments, and determines the length of stay.

New § 424.10 reads:

(a) *Purpose.* The physician has a major role in determining utilization of health services furnished by providers. The physician decides upon admissions, orders tests, drugs and treatments, and determines the length of stay.

In the revised section, using "major role" rather than "key figure" was not intended as a substantive change. The second clause, which provides the "evidence" of the physician's importance, the things he or she does that influence utilization, was retained unchanged. However, in order to ensure that others do not misinterpret the change as reducing the physician's importance in determining utilization of services, we are restoring the term "key figure" in § 424.10. This change appears among the technical amendments at the end of the rules text.

#### IX. Medicare and Medicaid: Handling of a New Term

"Conditions of participation" is the term that has long been used in connection with providers that participate or seek to participate in Medicare. In some cases, the same conditions apply to participation in Medicaid.

Final rules published on February 2, 1989 (54 FR 5316) amended part 483

(established by a final rule published on June 3, 1988 at 53 FR 20448) to add a new subpart B. Subpart B redesignated and revised the Medicare rules previously contained in subpart K of part 405 (Conditions of Participation; Skilled Nursing Facilities (SNFs)) and the Medicaid rules in subparts D through F of part 442 (Requirements for SNFs and Intermediate Care Facilities (ICFs)), and standards for ICFs other than ICFs for the Mentally Retarded (ICFs/MR).

The rules published on February 2, 1989 used the term "requirements for participation" in lieu of "conditions of participation".

This new terminology would require us to identify all the Medicare and Medicaid rules that refer to "conditions of participation" in order to insert "requirement for participation" where appropriate.

We have chosen, as a simpler way to take care of current and future needs in this area, to define "conditions of participation" to include "requirements for participation", as the latter term is used in part 483. The definition is inserted in § 400.200, and appears at the end of the text with other technical and conforming amendments.

#### X. Technical Amendments

The technical amendments that appear under part 430 and at the end of the text are necessary to—

- Make explicit what was implicit in the language of 45 CFR 201.3(g) before it was redesignated as 42 CFR 430.20 by final rules published on September 21, 1988 at 53 FR 36573. The § 201.3(g) reference to "additional assistance" (to be provided under an amendment to the State Medicaid plan) means not only additional services, but also increased payment for services already included in the plan.

- Explain acronyms and abbreviations that are used frequently in the HCFA rules.

- Correct references to sections of the law and regulations that have been redesignated or removed, and to organizations that have changed their names.

- Make clear the relationship between "conditions of participation" and "requirements for participation", and between "condition level" deficiencies, and deficiencies with respect to "level A requirements".

- Make clear, by amending parts 410 and 424, that physician certification of need for medical and other health services is required only if those part B services are furnished by providers and, accordingly, is not required for home dialysis support services furnished by



an ESRD facility. (The plan of treatment requirements for home dialysis support services are set forth in § 410.52(b) of the Medicare rules.)

- Conform the definition of "institution for mental diseases" (as it appears in §§ 435.1009 and 440.140(a)(2)) to the clarification made by section 411(k)(14) of Pub. L. 100-360.

- Conform an appeals provision (§ 498.3(d)(3)) to the pertinent provider agreement rule (§ 489.12).

#### **XI. Waiver of Proposed Rulemaking**

These rules conform HCFA regulations to 14 self-executing amendments to the Medicare and Medicaid laws (titles XVIII and XIX of the Social Security Act) and one amendment to the SSI law (title XVI of the Act).

With two minor exceptions, the amendments to the Act are so specific and detailed that they leave no room for alternative interpretations or implementation. The two exceptions are in the amendments made by sections 4066 and 4070(b).

#### **Section 4066 Amendments**

Amended sections 1833(a)(2)(E) and 1833(n) of the Act are specific as to the changes in the method for computing payment for hospital outpatient radiology services. However, the Secretary is to define the "other outpatient diagnostic procedures" that are subject to those changed computation methods. We plan to publish the definition in the Federal Register.

Added section 1861(ff) of the Act requires us to establish guidelines as to the frequency and duration of partial hospitalization services. In these rules we are adopting guidelines under which we delegate responsibility to the physician who establishes and reviews the plan of treatment. We believe that the physician is best able to determine the frequency and duration that is necessary and appropriate for each patient. If experience indicates the need for Federal limits, we will publish additional guidelines as a notice of proposed rulemaking.

The editorial changes and technical amendments to other related regulations have no substantive effect, and the new § 430.25 simply codifies long-standing practice. Accordingly, we find that there is good cause to dispense with proposed rulemaking.

However, as previously indicated, we will consider timely comments from anyone who believes that, in the conforming amendments we have misinterpreted the intent of the law, or in the technical and editorial changes,

we have unintentionally made substantive changes other than those discussed in this preamble.

Although we cannot respond to comments individually, if we change these rules as a result of comments, we will discuss all comments in the preamble to the revised rules.

#### **XII. Regulatory Impact Statement**

Executive Order 12291 requires us to prepare and publish a regulatory impact analysis for any regulation that is likely to have an annual impact of \$100 million or more, cause a major increase in costs or prices, or meet other thresholds specified in section 1(b) of the order.

In addition, consistent with the Regulatory Flexibility Act (RFA) and section 1102(b) of the Social Security Act, we prepare a regulatory flexibility analysis for each rule, unless the Secretary certifies that the particular rule will not have a significant economic impact on a substantial number of small entities, or a significant impact on the operation of a substantial number of small rural hospitals.

The RFA defines "small entity" as a small business, a nonprofit enterprise, or a governmental jurisdiction (such as a county, city, or township) with a population of less than 50,000. We also consider all providers and suppliers of services to be small entities. For purposes of section 1102(b) of the Act, we define small rural hospital as a hospital that has fewer than 50 beds, and is located anywhere but in a metropolitan statistical area.

These regulations amend the HCFA rules to reflect changes made by specified provisions of the four laws identified at the beginning of this preamble. Since the provisions are already in effect, publication of these conforming amendments to the HCFA rules will have no additional impact, but will simply ensure that the rules reflect current statutory requirements.

#### **Accordingly—**

- We have determined that these rules will not have a significant impact on the general economy nor do they meet any of the other threshold criteria contained in Executive Order 12291. Therefore, a regulatory impact analysis is not required.

- We have determined, and the Secretary certifies, that these rules will not have a significant economic impact on a substantial number of small entities, and will not significantly affect the operation of a substantial number of small rural hospitals. Therefore, a regulatory flexibility analysis is not required.

#### **Paperwork Reduction Act**

These regulations contain no new information collection requirements subject to review by the Office of Management and Budget under the Paperwork Reduction Act of 1980.

#### **List of Subjects**

##### **42 CFR Part 400**

Grant programs—health, Health facilities, Health maintenance organizations (HMO), Medicaid, Medicare, Reporting and recordkeeping requirements.

##### **42 CFR Part 405**

Administrative practice and procedure, Health facilities, Health professions, Kidney diseases, Laboratories, Medicare, Nursing homes, Reporting and recordkeeping requirements, Rural areas, X-rays.

##### **42 CFR Part 406**

Health facilities, Kidney diseases, Medicare.

##### **42 CFR Part 408**

Health facilities, Kidney diseases, Medicare.

##### **42 CFR Part 409**

Health facilities, Medicare.

##### **42 CFR Part 410**

Health facilities, Health professions, Kidney diseases, Laboratories, Medicare, Rural areas, X-rays.

##### **42 CFR Part 413**

Health facilities, Kidney diseases, Medicare, Reporting and recordkeeping requirements.

##### **42 CFR Part 416**

Health facilities, Health professions, Medicare, Reporting and recordkeeping requirements.

##### **42 CFR Part 417**

Administrative practice and procedures, Health maintenance organization (HMO), Medicare, Reporting and recordkeeping requirements.

##### **42 CFR Part 424**

Assignment of benefits, Physician certification, Claims for payment, Emergency services, Plan of treatment.

##### **42 CFR Part 430**

Grant programs—health, Medicaid.

##### **42 CFR Part 431**

Grant programs—health, Health facilities, Medicaid, Privacy, Reporting and recordkeeping requirements.



**42 CFR Part 435**

Aid to Families with Dependent Children, Grant programs—health, Medicaid, Reporting and recordkeeping requirements, Supplemental Security Income (SSI), Wages.

**42 CFR Part 436**

Aid to Families with Dependent Children, Grant programs—health, Guam, Medicaid, Puerto Rico, Supplemental Security Income (SSI), Virgin Islands.

**42 CFR Part 440**

Grant programs—health, Medicaid.

**42 CFR Part 441**

Family planning, Grant programs—health, Infants and children, Medicaid, Penalties, Prescription drugs, Reporting and recordkeeping requirements.

**42 CFR Part 447**

Accounting, Administrative practice and procedure, Grant programs—health, Health facilities, Health professions, Medicaid, Reporting and recordkeeping requirements, Rural areas.

**42 CFR Part 455**

Fraud, Grant programs—health, Health facilities, Health professions, Investigations, Medicaid, Reporting and recordkeeping requirements.

**42 CFR Part 462**

Hospitals, Medicaid, Medicare, Reporting and recordkeeping requirements.

**42 CFR Part 465**

Health facilities, Medicare, Reporting and recordkeeping requirements.

**42 CFR Part 489**

Health facilities, Medicare.

**42 CFR Part 491**

Health facilities, Medicaid, Medicare, Reporting and recordkeeping requirements, Rural areas.

**42 CFR Part 498**

Administrative practice and procedure, Appeals, Medicare practitioners, providers and suppliers.

42 CFR chapter IV is amended as set forth below:

A. Part 406.

**PART 406—HOSPITAL INSURANCE ELIGIBILITY AND ENTITLEMENT**

1. The authority citation continues to read as follows:

Authority: Secs. 1102 and 1871 of the Social Security Act (42 U.S.C. 1302 and 1395hh).

**Subpart B—Hospital Insurance Without Monthly Premiums**

2. The heading of subpart B is revised to read as set forth below.

3. Section 406.22 is amended by revising paragraphs (a) and (b) to read as follows:

**§ 406.22 Monthly premiums.**

(a) *Promulgation and effective date.* Beginning with 1984, premiums are promulgated each September, effective for the succeeding calendar year.

(b) *Premium amounts.* (1) Before July 1974, the monthly premium was \$33.

(2) For months after June 1974 and before January 1989, the dollar amount was determined by multiplying \$33 by the ratio of next year's inpatient deductible to \$76, which was the inpatient deductible determined for 1973. (Because of price controls, the deductible actually charged for 1973 was \$72.)

(3) Beginning with 1989, the monthly premium is equal to one twelfth of the per capita amount that the Secretary estimates will be payable under part A for services and administrative costs with respect to individuals age 65 and over who are entitled to part A benefits throughout the year for which the premium applies.

(4) The amount determined by the formula is rounded to the nearest multiple of \$1 (50¢ is rounded to the next higher dollar).

• • • • •

B. Part 408.

**PART 408—PREMIUMS FOR SUPPLEMENTARY MEDICAL INSURANCE**

1. The authority citation continues to read as follows:

Authority: Secs. 1102, 1818, 1837–1840, 1843, 1871, and 1881(d) of the Social Security Act (42 U.S.C. 1302, 1395i–2, 1395p–1395s, 1395v, 1395hh, and 1395rr(d)), and the Federal Claims Collection Act (31 U.S.C. 3711).

2. Section 408.20 is revised to read as follows:

**§ 408.20 Monthly premiums.**

(a) *Statutory provisions.* (1) The law established a monthly premium of \$3 for the initial period of the program. It also set forth criteria and procedures for the Secretary to follow each December, beginning with December 1968, to determine and promulgate the standard monthly premium for the 12-month period beginning with July of the following year.

(2) The law was amended in 1983 to require that the Secretary promulgate the standard monthly premium in

September of that year, and each year thereafter, to be effective for the 12 months beginning with the following January.

(3) The standard monthly premium applies to individuals who enroll during their initial enrollment periods. In other situations, that premium may be increased or decreased as specified in this subpart.

(4) The law was further amended in 1984 to include a temporary "hold harmless" provision (set forth in paragraph (e) of this section), that was subsequently extended and finally made permanent in 1988.

(b) *Criteria and procedures for the period from July 1976 through December 1983, and for periods after December 1990.* (1) For periods from July 1976 through December 1983, the Secretary determined and promulgated as the standard monthly premium (for disabled as well as aged enrollees) the lower of the following:

(i) The actuarial rate for the aged.

(ii) The monthly premium promulgated the previous December for the year beginning July 1, increased by a percentage that is the same as the latest cost-of-living increase in old age insurance benefits that occurred before the current promulgation. (Because of the change in the effective dates of the premium amount (under paragraph (a)(2) of this section), there was no increase in the standard monthly premium for the period July 1983 through December 1983.)

(2) For periods after December 1990, the Secretary determines the standard monthly premium in the manner specified in paragraph (b)(1) of this section, but promulgates it in September, for the following calendar year.

(c) *Premiums for calendar years 1984 through 1990.* For calendar years 1984 through 1990, the standard monthly premium for all enrollees—

(1) Is equal to 50 percent of the actuarial rate for enrollees age 65 or over, that is, is calculated on the basis of 25 percent of program costs without regard to any cost-of-living increase in old age insurance benefits; and

(2) Is promulgated in the preceding September.

(d) *Limitation on increase of standard premium: 1987 and 1988.* If there is no cost-of-living increase in old age or disability benefits for December 1985 or December 1986, the standard monthly premiums for 1987 and 1988 (promulgated in September 1986 and September 1987, respectively) may not be increased.

(e) *Nonstandard premiums for certain cases—(1) Basic rule.* A nonstandard



premium may be established in individual cases only if the individual is entitled to old age or disability benefits for the months of November and December, and actually receives the corresponding benefit checks in December and January.

(2) *Special rules: Calendar years 1987 and 1988.* For calendar years 1987 and 1988, the following rules apply:

(i) A nonstandard premium may be established if there is a cost-of-living increase in old age or disability benefits but, because the increase in the standard premium is greater than the cost-of-living increase, the beneficiary would receive a lower cash benefit in January than he or she received in December.

(ii) A nonstandard premium may not be established if the reduction in the individual's benefit would result, in whole or in part, from any circumstance other than the circumstance described in paragraph (e)(2)(i) of this section.

(3) *Special rule: Calendar years after 1988.* (i) Beginning with calendar year 1989, a premium increase greater than the cost-of-living increase is still a prerequisite for a nonstandard premium.

(ii) However, a nonstandard premium is not precluded solely because the cash benefit is further reduced as a result of government pension offset or workers' compensation payment.

(4) *Amount of nonstandard premium.* The nonstandard premium is the greater of the following:

(i) The premium paid for December.

(ii) The standard premium promulgated for January, reduced as necessary to compensate for—

(A) The fact that the cost-of-living increase was less than the increase in the standard premium; or

(B) The further reduction in benefit because of government pension offset or workers' compensation payments.

(5) *Effective dates of nonstandard premium.* A nonstandard premium established under this paragraph (e) continues in effect for the rest of the calendar year even if later there are retroactive adjustments in benefit payments. (The nonstandard premium could be affected by a determination that the individual had not established, or had lost, entitlement to monthly benefits for November or December, or both.)

(6) *Effect of late enrollment or reenrollment.* A nonstandard premium is subject to increase for late enrollment or reenrollment as required under other sections of this subpart. The increase is computed on the basis of the standard premium and added to the nonstandard premium.

C. Part 409.

## PART 409—HOSPITAL INSURANCE BENEFITS

1. The authority citation continues to read as follows:

Authority: Secs. 1102, 1812, 1813, 1861, 1862(h), 1871 and 1881 of the Social Security Act (42 U.S.C. 1302, 1395d, 1395e, 1395x, 1395y(h), 1395hh, and 1395rr).

2. Section 409.19 is revised to read as follows:

### § 409.19 Services related to cardiac pacemakers and pacemaker leads.

(a) *Requirement.* (1) Providers that request or receive Medicare payment for the implantation, removal, or replacement of permanent cardiac pacemakers and pacemaker leads must submit to HCFA the information required for the pacemaker registry.

(2) The required information is set forth under 21 CFR part 805 of the FDA regulations and must be submitted in accordance with general instructions issued by HCFA.

(b) *Denial of payment.* If HCFA finds that a provider has failed to comply with paragraph (a) of this section, HCFA will deny payment for the implantation, removal, or replacement of any permanent cardiac pacemaker or pacemaker lead, effective 45 days after sending the provider written notice in accordance with paragraph (c) of this section.

(c) *Notice of denial of payment.* The notice of denial of payment—

(1) States the reasons for the determination;

(2) Grants the provider 45 days from the date of the notice to submit the information or evidence showing that the determination is in error; and

(3) Informs the provider of its right to hearing.

(d) *Right to hearing.* If the denial of payment determination goes into effect at the expiration of the 45-day period, it constitutes an "initial determination" subject to administrative and judicial review under part 498 of this chapter.

3. In § 409.42, paragraph (d) is revised to read as follows:

### § 409.42 Requirements and conditions for home health services.

• • • • •

(d) *Plan of treatment requirements.* The home health services must be

\* Before January 1981, only a doctor of medicine or osteopathy could establish a plan for home health services. A plan of treatment established before July 1981 was acceptable for Medicare Part A payment only if it was established within 14 days after the individual's discharge from a hospital or SNF.

furnished under a plan of treatment that is established and periodically reviewed by a doctor of medicine, osteopathy, or podiatric medicine. A doctor of podiatric medicine may establish a plan of treatment only if that is consistent with the functions he or she is authorized to perform under State law.

4. Section 409.87 is amended to revise paragraphs (a)(3) and (a)(6) to read as follows:

### § 409.87 Blood deductible.

(a) General provisions. \* \* \*

3. Medicare does not pay for the first 3 units of whole blood or units of packed red cells that a beneficiary receives, during a benefit period, as an inpatient of a hospital or SNF, or on an outpatient basis under Medicare Part B.

\* \* \* \* \*

(6) The Part A blood deductible is reduced to the extent that the Part B blood deductible has been applied. For example, if a beneficiary had received one unit under Medicare Part B, and later in the same benefit period received three units under Medicare Part A, Medicare Part A would pay for the third of the latter units. (As specified in § 410.161 of this chapter, the Part B blood deductible is reduced to the extent a blood deductible has been applied under Medicare Part A.)

\* \* \* \* \*

D. Part 410.

## PART 410—SUPPLEMENTARY MEDICAL INSURANCE (SMI) BENEFITS

1. The authority citation continues to read as follows:

Authority: Secs. 1102, 1832, 1835, 1861(r), (s), and (cc), 1871, and 1881 of the Social Security Act (42 U.S.C.) 1302, 1395K, 1395I, 1395n, 1395x(r), (s), and (cc), 1395hh, and 1395rr.

### § 410.2 [Amended]

2. Section 410.2 is amended to add the following definition in alphabetical order:

*Partial hospitalization services* means (a) A distinct and organized intensive ambulatory treatment program that offers less than 24-hour daily care and furnishes services that—

(1) Are reasonable and necessary for the diagnosis or active treatment of the individual's condition;

(2) Are reasonably expected to improve or maintain the individual's condition and functional level and to prevent relapse or hospitalization; and

(3) Include any of the following:

(i) Individual and group therapy with physicians or psychologists or other



mental health professionals to the extent authorized under State law.

(ii) Occupational therapy requiring the skills of a qualified occupational therapist.

(iii) Services of social workers, trained psychiatric nurses, and other staff trained to work with psychiatric patients.

(iv) Drugs and biologicals furnished for therapeutic purposes, subject to the limitations specified in § 410.29.

(v) Individualized activity therapies that are not primarily recreational or diversionary.

(vi) Family counseling, the primary purpose of which is treatment of the individual's condition.

(vii) Patient training and education, to the extent the training and educational activities are closely and clearly related to the individual's care and treatment.

(viii) Diagnostic services.

(ix) Other items and services as specified by HCFA, excluding meals and transportation.

3. Section 410.10 is amended to correct the heading, and revise the introductory text, and paragraph (c) to read as follows:

**§ 410.10 Medical and other health services: Included services.**

Subject to the conditions and limitations specified in this subpart, "medical and other health services" includes the following services:

(c) Services and supplies, including partial hospitalization services, that are incident to physician services and are furnished to outpatients by or under arrangements made by a hospital.

4. Section 410.27 is revised to read as follows:

**§ 410.27 Outpatient hospital services and supplies incident to physicians' services: Conditions.**

(a) Medicare Part B pays for hospital services and supplies furnished incident to physicians' services to outpatients, including drugs and biologicals that cannot be self-administered, if—

(1) They are furnished—

(i) By or under arrangements made by a participating hospital; and

(ii) As an integral though incidental part of a physician's services; and

(2) In the case of partial hospitalization services, also meet the conditions of paragraph (d) of this section.

(b) Drugs and biologicals are also subject to the limitations specified in § 410.168.

(c) Rules on emergency services furnished to outpatients by

nonparticipating hospitals are specified in § 410.168.

(d) Medicare Part B pays for partial hospitalization services if they are—

(1) Prescribed by a physician who certifies and recertifies the need for the services in accordance with subpart B of part 424 of this chapter; and

(2) Furnished under a plan of treatment as required under subpart B of part 424 of this chapter.

5. Section 410.64 is revised to read as follows:

**§ 410.64 Services related to cardiac pacemakers and pacemaker leads.**

(a) *Requirement.* (1) Physicians or providers that request or receive payment for the implantation, removal, or replacement of permanent cardiac pacemakers and pacemaker leads, must submit to HCFA the information required for the pacemaker registry.

(2) The required information is set forth under 21 CFR part 805 of the FDA regulations and must be submitted in accordance with general instructions issued by HCFA.

(b) *Denial of payment.* If HCFA finds that a physician or provider has failed to comply with paragraph (a) of this section, HCFA will deny payment for the implantation, removal, or replacement of any permanent cardiac pacemaker or pacemaker lead, effective 45 days after sending the physician or provider written notice in accordance with paragraph (c) of this section.

(c) *Notice of denial of payment.* The notice of denial of payment—

(1) States the reasons for the determination;

(2) Grants the physician or provider 45 days from the date of the notice to submit the information or evidence showing that the determination is in error; and

(3) Informs the physician or provider of its right to hearing.

(d) *Right to hearing.* If the denial of payment goes into effect at the expiration of the 45-day period, it constitutes an "initial determination" subject to administrative and judicial review under part 498 of this chapter.

6. In § 410.105, the introductory text and paragraph (b) are revised to read as follows:

**§ 410.105 Requirements for coverage of CORF services.**

Services specified in § 410.100 and not excluded under § 410.102 are covered as CORF services if they are furnished by a participating CORF (that is, a CORF that meets the conditions of subpart B of part 485 of this chapter, and has in effect a provider agreement under part 489 of

this chapter) and if the following requirements are met:

(b) *When and where services are furnished.* (1) All services must be furnished while the individual is under the care of a physician.

(2) Except as provided in paragraph (b)(3) of this section, the services must be furnished on the premises of the CORF.

(3) *Exceptions.* (i) Physical therapy, occupational therapy, and speech pathology services may be furnished away from the premises of the CORF.

(ii) The single home visit specified in § 410.100(m) is also covered.

7. In § 410.152, paragraph (a)(1) is republished, and paragraphs (a)(1)(iv), (a)(2)(iii), and (i) are revised to read as follows:

**§ 410.152 Amounts of payment.**

(a) *General provisions.*—(1) *Exclusion from incurred expenses.* As used in this section, "incurred expenses" are expenses incurred by an individual, during his or her coverage period, for covered Part B services, excluding the following:

(iv) In the case of physician and CORF services for the treatment of a mental, psychoneurotic, or personality disorder, furnished to an individual who is not an inpatient of a hospital, the expenses excluded from incurred expenses under § 410.155(c).

(2) *Other applicable provisions.* \* \* \*

(iii) The special rules for payment to health maintenance organizations (HMOs), health care prepayment plans (HCPPs), and competitive medical plans (CMPs) that are set forth in part 417 of this chapter. (A prepayment organization that does not qualify as an HMO, CMP, or HCPP is paid in accordance with paragraph (b)(4) of this section.)

(i) *Amount of payment: ASC facility services.* For ASC facility services that are furnished in connection with the surgical procedures specified in part 416 of this chapter, Medicare Part B pays 80 percent of a standard overhead amount, as specified in § 416.120(c) of this chapter.<sup>1</sup>

<sup>1</sup> For services furnished before July 1, 1987, Medicare Part B paid 100 percent of the standard amount.



8. In § 410.155, paragraph (b) is republished, and paragraph (c) is revised to read as follows:

**§ 410.155 Psychiatric services limitations: Expenses incurred for physician services and CORF services.**

\* \* \*

(b) *Services subject to limitation.* The psychiatric services limitation applies to physician services and CORF services (furnished by physicians or nonphysicians) for the treatment of a mental, psychoneurotic, or personality disorder, when the services are furnished to an individual who is not an inpatient in a hospital.

(c) *Limitation on incurred expenses—*

(1) *Current limit.* For purposes of §§ 410.152 and 410.160, incurred expenses for the services specified in paragraph (b) of this section exclude expenses that are in excess of 62½ percent of the sum of the reasonable charges for physician services and the customary charges for CORF services.

(2) *Previous limits.* For years before calendar year 1990, incurred expenses that could be considered were limited to the lower of the current 62½ percent and a fixed dollar amount that—

(i) For calendar years before 1988, was \$312.50;

(ii) For calendar year 1988, was \$562.50; and

(iii) For calendar year 1989, was \$1,375.

\* \* \*

9. In § 410.160, paragraph (a) is republished, and paragraph (b) is revised to read as follows:

**§ 410.160 Part B annual deductible.**

(a) *Basic rule.* Except as provided in paragraph (b) of this section, incurred expenses (as defined in § 410.152) are subject to, and count toward meeting the annual deductible.

(b) *Exceptions.\** The following incurred expenses are not subject to the Part B annual deductible and do not count toward meeting that deductible:

(1) Home health services.

(2) Pneumococcal vaccines and their administration.

\* \* \*

E. Part 413 is amended as set forth below:

**PART 413—PRINCIPLES OF REASONABLE COST REIMBURSEMENT: PAYMENT FOR END-STAGE RENAL DISEASE SERVICES**

1. The authority citation is revised to read as follows:

Authority: Secs. 1102, 1122, 1814(b), 1815, 1833 (a), and (n), 1861(v), 1871, 1881, and 1886 of the Social Security Act as amended (42 U.S.C. 1302, 1320a-1, 1395f(b), 1395g, 1395l (a) and (n), 1395x(v), 1395hh, 1395rr, and 1395www).

2. Section 413.13 is amended to add new paragraphs (c)(3) and (c)(4), to read as follows:

**§ 413.13 Amount of payments if customary charges for services furnished are less than reasonable costs.**

\* \* \*

(c) \* \* \*

(3) *Hospital outpatient radiology services.* The reasonable costs and customary charges for hospital outpatient radiology services furnished on or after October 1, 1988, that are subject to the payment method described in § 413.122, are aggregated and treated separately from all other hospital costs and charges incurred during the cost reporting period.

(4) *Other diagnostic procedures performed by a hospital on an outpatient basis.* The reasonable costs and customary charges for other diagnostic procedures identified by HCFA, that are performed on an outpatient basis by a hospital on or after October 1, 1989, and that are subject to the payment method described in § 413.122, are aggregated and treated separately from all other hospital costs or charges incurred during the cost reporting period.

3. A new § 413.122 is added, to read as follows:

**§ 413.122 Payment for hospital outpatient radiology services and other diagnostic procedures.**

(a) *Basis and purpose.* (1) This section implements section 1833(n) of the Act and establishes the method for determining Medicare payments for radiology services and other diagnostic procedures performed by a hospital on an outpatient basis.

(2) For purposes of this section—

(i) Radiology services include diagnostic and therapeutic radiology, nuclear medicine, CAT scan procedures, magnetic resonance imaging, ultrasound and other imaging services; and

(ii) Other diagnostic procedures are those identified by HCFA, and do not include diagnostic radiology procedures or diagnostic laboratory tests.

(b) *Payment for hospital outpatient radiology services.* (1) The aggregate payment for hospital outpatient radiology services furnished on or after October 1, 1988 is equal to the lesser of the following:

(i) The hospital's reasonable cost or customary charges, as determined in accordance with § 413.13, reduced by the applicable Part B annual deductible and coinsurance amounts.

(ii) The blended payment amount described in paragraph (b)(2) of this section.

(2) The blended payment amount for hospital outpatient radiology services furnished on or after October 1, 1988, but before October 1, 1989, is equal to the sum of—

(i) 65 percent of the hospital-specific amount (the hospital's reasonable cost or customary charges, whichever is less, reduced by the applicable Part B annual deductible and coinsurance amounts); and

(ii) 35 percent of a prevailing charge or fee schedule amount that is calculated as 80 percent of the amount determined by subtracting the applicable Part B annual deductible from 62 percent of the prevailing charges (or for services furnished on or after January 1, 1989, the fee schedule amount established) for the same services when furnished by participating physicians in their offices in the same locality.

(3) For hospital outpatient radiology services furnished on or after October 1, 1989, the blended payment amount is equal to the sum of 50 percent of the hospital-specific amount and 50 percent of the fee schedule amount.

(c) *Payment for other diagnostic procedures.* (1) The aggregate payment for other diagnostic procedures performed by a hospital on an outpatient basis on or after October 1, 1989 is equal to the lesser of the following:

(i) The hospital's reasonable cost or customary charges, as determined in accordance with § 414.13, reduced by the applicable Part B annual deductible and coinsurance amounts.

(ii) The blended payment described in paragraph (c)(2) of this section.

(2) The blended payment amount for other diagnostic procedures furnished on or after October 1, 1989, but before October 1, 1990, is equal to the sum of—

(i) 65 percent of the hospital-specific amount (the hospital's reasonable cost or customary charges, whichever is less, reduced by the applicable Part B annual deductible and coinsurance amounts); and

(ii) 35 percent of a prevailing charge amount that is calculated as 80 percent

\* The deductible provisions did not apply to ASC facility services that were furnished before July 1987, nor to physician services that were furnished before April 1988 and that met the requirements for payment of 100 percent of the reasonable charges.



of the amount determined by subtracting the applicable Part B annual deductible from 42 percent of the prevailing charges for the same services furnished by participating physicians in their offices in the same locality.

(3) For other diagnostic procedures performed by a hospital on or after October 1, 1990, the blended payment is equal to 50 percent of the hospital-specific amount and 50 percent of the prevailing charge amount.

F. Part 416 is amended as set forth below:

1. The table of contents is revised to read as follows:

## **PART 416—AMBULATORY SURGICAL SERVICES**

### **Subpart A—General Provisions and Definitions**

Sec.

- 416.1 Basis and scope.
- 416.2 Definitions.

### **Subpart B—General Conditions and Requirements**

- 416.25 Basic requirements.
- 416.26 Qualifying for an agreement.
- 416.30 Terms of agreement with HCFA.
- 416.35 Termination of agreement.

### **Subpart C—Specific Conditions for Coverage**

- 416.40 Condition for coverage—Compliance with State licensure law.
- 416.41 Condition for coverage—Governing body and management.
- 416.42 Condition for coverage—Surgical services.
- 416.43 Condition for coverage—Evaluation of quality.
- 416.44 Condition for coverage—Environment.
- 416.45 Condition for coverage—Medical staff.
- 416.46 Condition for coverage—Nursing services.
- 416.47 Condition for coverage—Medical records.
- 416.48 Condition for coverage—Pharmaceutical services.
- 416.49 Condition for coverage—Laboratory and radiologic services.

### **Subpart D—Scope of Benefits**

- 416.60 General rules.
- 416.61 Scope of facility services.
- 416.65 Covered surgical procedures.
- 416.75 Performance of listed surgical procedures on an inpatient hospital basis.

### **Subpart E—Payment for Facility Services**

- 416.120 Basis for payment.
- 416.125 ASC services payment rate.
- 416.130 Publication of revised payment methodologies.
- 416.140 Reporting requirements.
- 416.150 Beneficiary appeals.

Authority: Secs. 1102, 1832(a)(2), 1833, 1863 and 1864 of the Social Security Act (42 U.S.C. 1302, 1395k(a)(2), 1395i, 1395z and 1395aa).

2. In subpart A, §§ 416.1 and 416.2 are revised, and § 416.3 is removed, to read as follows:

#### **§ 416.1 Basis and scope.**

(a) *Statutory basis.* (1) Section 1832(a)(2)(F)(i) of the Act provides for Medicare Part B coverage of facility services furnished in connection with surgical procedures specified by the Secretary under section 1833(i)(1) of the Act.

(2) Section 1833(i)(1)(A) of the Act requires the Secretary to specify the surgical procedures that can be performed safely on an ambulatory basis in an ambulatory surgical center, or a hospital outpatient department.

(3) Section 1833(i)(2)(A) and (3) specify the amounts to be paid for facility services furnished in connection with the specified surgical procedures when they are performed, respectively, in an ASC, or in a hospital outpatient department.

(b) *Scope.* This part sets forth—

(1) The conditions that an ASC must meet in order to participate in the Medicare program;

(2) The scope of covered services; and

(3) The conditions for Medicare payment for facility services.

#### **§ 416.2 Definitions.**

As used in this part:

*Ambulatory surgical center or ASC* means any distinct entity that operates exclusively for the purpose of providing surgical services to patients not requiring hospitalization, has an agreement with HCFA under Medicare to participate as an ASC, and meets the conditions set forth in subparts B and C of this part.

*ASC services* means facility services that are furnished in an ASC.

*Covered surgical procedures* means those surgical and other medical procedures that meet the criteria specified in § 416.65 and are published by HCFA in the Federal Register.

*Facility services* means services that are furnished in connection with covered surgical procedures performed in an ASC, or in a hospital on an outpatient basis.

3. In subpart B, the subpart heading and § 416.25 are revised, a new § 416.26 is added, § 416.30 is amended by revising the introductory text and paragraphs (a), (b), (e), and (f) to read as follows, and the undesignated center heading entitled "Conditions of Coverage" and §§ 416.20 and 416.39 are removed.

### **Subpart B—General Conditions and Requirements**

#### **§ 416.25 Basic requirements.**

Participation as an ASC is limited to facilities that—

- (a) Meet the definition in § 416.2; and
- (b) Have in effect an agreement obtained in accordance with this subpart.

#### **§ 416.26 Qualifying for an agreement.**

(a) *Deemed compliance.* HCFA may deem an ASC to be in compliance with any or all of the conditions set forth in subpart C of this part if—

(1) The ASC is accredited by a national accrediting body, or licensed by a State agency, that HCFA determines provides reasonable assurance that the conditions are met;

(2) In the case of deemed status through accreditation by a national accrediting body, where State law requires licensure, the ASC complies with State licensure requirements; and

(3) The ASC authorizes the release to HCFA, of the findings of the accreditation survey.

(b) *Survey of ASCs.* (1) Unless HCFA deems the ASC to be in compliance with the conditions set forth in subpart C of this part, the State survey agency must survey the facility to ascertain compliance with those conditions, and report its findings to HCFA.

(2) HCFA surveys deemed ASCs on a sample basis as part of HCFA's validation process.

(c) *Acceptance of the ASC as qualified to furnish ambulatory surgical services.* If HCFA determines, after reviewing the survey agency recommendation and other evidence relating to the qualification of the ASC, that the facility meets the requirements of this part, it sends to the ASC—

- (1) Written notice of the determination; and
- (2) Two copies of the ASC agreement.

(d) *Filing of agreement by the ASC.* If the ASC wishes to participate in the program, it must—

- (1) Have both copies of the ASC agreement signed by its authorized representative; and
- (2) File them with HCFA.

(e) *Acceptance by HCFA.* If HCFA accepts the agreement filed by the ASC, returns to the ASC one copy of the agreement, with a notice of acceptance specifying the effective date.

(f) *Appeal rights.* If HCFA refuses to enter into an agreement or if HCFA terminates an agreement, the ASC is entitled to a hearing in accordance with Part 498 of this chapter.



**§ 416.30 Terms of agreement with HCFA.**

As part of the agreement under § 416.26 the ASC must agree to the following:

(a) *Compliance with coverage conditions.* The ASC agrees to meet the conditions for coverage specified in subpart C of this part and to report promptly to HCFA any failure to do so.

(b) *Limitation on charges to beneficiaries.*<sup>1</sup> The ASC agrees to charge the beneficiary or any other person only the applicable deductible and coinsurance amounts for facility services for which the beneficiary—

(1) Is entitled to have payment made on his or her behalf under this part; or

(2) Would have been so entitled if the ASC had filed a request for payment in accordance with § 410.165 of this chapter.

\* \* \*

(e) *Acceptance of assignment.* The ASC agrees to accept assignment for all facility services furnished in connection with covered surgical procedures. For purposes of this section, assignment means an assignment under § 424.55 of this chapter of the right to receive payment under Medicare Part B and payment under § 424.64 of this chapter (when an individual dies before assigning the claim).

(f) *ASCs operated by a hospital.* In an ASC operated by a hospital—

(1) The agreement is made effective on the first day of the next Medicare cost reporting period of the hospital that operates the ASC; and

(2) The ASC participates and is paid only as an ASC, without the option of converting to or being paid as a hospital outpatient department, unless HCFA determines there is good cause to do otherwise.

(3) Costs for the ASC are treated as a non-reimbursable cost center on the hospital's cost report.

\* \* \*

**§ 416.35 [Amended]**

3a. In § 416.35, the following changes are made:

a. In paragraph (b)(2), "will send" is changed to "sends".

b. In paragraph (c) "will not be" is changed to "is not".

**§ 416.39 [Removed]**

4. Section 416.39 is removed.

<sup>1</sup> For facility services furnished before July 1987, the ASC had to agree to make no charge to the beneficiary, since those services were not subject to the part B deductible and coinsurance provisions.

**Subpart C—[Redesignated as Subpart E]**

4a. Subpart C is redesignated as subpart E.

**Subpart C—[Added]**

5. Sections 416.40 through 416.49 are designated under a new "Subpart C—Specific Conditions for Coverage".

6. The undesignated center heading entitled "Scope of Benefits" is designated to read: "Subpart D—Scope of Benefits."

**Subpart D—Scope of Benefits**

7. In newly designated subpart D, §§ 416.60 and 416.61 are revised to read as follows:

**§ 416.60 General rules.**

(a) The services payable under this part are facility services furnished to Medicare beneficiaries, by a participating facility, in connection with covered surgical procedures specified in § 416.65.

(b) The surgical procedures, including all preoperative and post-operative services that are performed by a physician, are covered as physician services under part 410 of this chapter.

**§ 416.61 Scope of facility services.**

(a) *Included services.* Facility services include, but are not limited to—

(1) Nursing, technician, and related services;

(2) Use of the facilities where the surgical procedures are performed;

(3) Drugs, biologicals, surgical dressings, supplies, splints, casts, and appliances and equipment directly related to the provision of surgical procedures;

(4) Diagnostic or therapeutic services or items directly related to the provision of a surgical procedure;

(5) Administrative, recordkeeping and housekeeping items and services; and

(6) Materials for anesthesia.

(7) Intra-ocular lenses (IOLs).

(b) *Excluded services.*

Facility services do not include items and services for which payment may be made under other provisions of Part 405 of this chapter, such as physicians' services, laboratory, X-ray or diagnostic procedures (other than those directly related to performance of the surgical procedure), prosthetic devices (except IOLs), ambulance services, leg, arm, back and neck braces, artificial limbs, and durable medical equipment for use in the patient's home.

8. Redesignated subpart E is amended to revise the subpart heading, remove

§§ 416.100 and 416.110, and revise

§§ 416.120 and 416.125 to read as follows:

**Subpart E—Payment for Facility Services****§ 416.120 Basis for payment.**

The basis for payment depends on where the services are furnished.

(a) *Hospital outpatient department.* Payment will be in accordance with part 413 of this chapter.

(b) [Reserved]

(c) *ASC—(1) General rule.* Payment is based on a prospectively determined rate. This rate covers the cost of services such as supplies, nursing services, equipment, etc., as specified in § 416.61. The rate does not cover physician services or other medical services covered under part 410 of this chapter (for example, X-ray services or laboratory services) which are not directly related to the performance of the surgical procedures. Those services may be billed separately and paid on a reasonable charge basis.

(2) *Single and multiple surgical procedures.* (i) If one covered surgical procedure is furnished to a beneficiary in an operative session, payment is based on the prospectively determined rate for that procedure.

(ii) If more than one surgical procedure is furnished in a single operative session, payment is based on—

(A) The full rate for the procedure with the highest prospectively determined rate; and

(B) One half of the prospectively determined rate for each of the other procedures.

(3) *Deductibles and coinsurance.* Part B deductible and coinsurance amounts apply as specified in § 410.152 (a) and (i) of this chapter.

**§ 416.125 ASC facility services payment rate.**

(a) The payment rate is based on a prospectively determined standard overhead amount per procedure derived from an estimate of the costs incurred by ambulatory surgical centers generally in providing services furnished in connection with the performance of that procedure.

(b) The payment must be substantially less than would have been paid under the program if the procedure had been performed on an inpatient basis in a hospital.

**§ 416.130 [Amended]**

8a. In § 416.130, "will publish", wherever it appears, is changed to "publishes", and "will also explain" is changed to "also explains".

8b. In § 416.140, the section heading and paragraph (a) are revised, and a



heading is provided for paragraph (b), to read as follows:

**§ 416.140 Surveys.**

(a) *Timing, purpose, and procedures.*

(1) No more often than once a year, HCFA conducts a survey of a randomly selected sample of participating ASCs to collect data for analysis or reevaluation of payment rates.

(2) HCFA notifies the selected ASCs by mail of their selection and of the form and content of the report the ASCs are required to submit within 60 days of the notice.

(3) If the facility does not submit an adequate report in response to HCFA's survey request, HCFA may terminate the agreement to participate in the Medicare program as an ASC.

(4) HCFA may grant a 30-day postponement of the due date for the survey report if it determines that the facility has demonstrated good cause for the delay.

(b) *Requirements for ASCs.* \* \* \*

G. Part 424.

**PART 424—CONDITIONS FOR MEDICARE PAYMENT**

1. The authority citation continues to read as follows:

Authority: Secs. 216(j), 1102, 1814, 1815(c), 1835, 1842(b), 1861, 1866(d), 1870 (e) and (f), 1871, and 1872 of the Social Security Act (42 U.S.C. 416(j), 1302, 1395f, 1395g(c), 1395n, 1395u(b), 1395x, 1395cc(d), 1395gg (e) and (f), 1395hh, and 1395ii).

2. In § 424.11, the introductory text of paragraph (e) is republished and paragraph (e)(3) is revised to read as follows:

**§ 424.11 General procedures.**

(e) *Limitation on authorization to sign statements.* A physician certification or recertification statement may be signed only by one of the following:

(3) A doctor of podiatric medicine if his or her certification is consistent with the functions he or she is authorized to perform under State law.

3. Section 424.22 is amended to revise paragraphs (a)(1)(iii) and (a)(1)(iv) and to remove and reserve paragraph (c), to read as follows:

**§ 424.22 Requirements for home health services.**

(a) *Certification—*

(1) Content of certification. \* \* \*

(iii) A plan for furnishing the services has been established and is periodically reviewed by a physician who is a doctor

of medicine, osteopathy, or podiatric medicine, and who is not precluded from performing this function under paragraph (d) of this section. (A doctor of podiatric medicine may perform only plan of treatment functions that are consistent with the functions he or she is authorized to perform under State law.)

(iv) The services were furnished while the individual was under the care of a physician who is a doctor of medicine, osteopathy, or podiatric medicine.<sup>1</sup>

4. Section 424.24 is amended to revise paragraphs (a), (b), and (c)(1), redesignate paragraph (e) as (f), and add a new paragraph (e), to read as follows:

**§ 424.24 Requirements for medical and other health services under Medicare Part B.**

(a) *Exempted services.* Certification is not required for the following: (1) Hospital services and supplies incident to physicians' services furnished to outpatients. The exemption applies to drugs and biologicals that cannot be self-administered, but not to partial hospitalization services, as set forth in paragraph (e) of this section.

(2) Outpatient hospital diagnostic services, including necessary drugs and biologicals, ordinarily furnished or arranged for by a hospital for the purpose of diagnostic study.

(3) Outpatient physical therapy services furnished in the patient's home or in the practitioner's office, by or under the direct supervision of a qualified physical therapist in independent practice. (See § 424.25 for plan of treatment requirements applicable to these services.)

(b) *General rule.* Medicare Part B pays for medical and other health services not exempted under paragraph (a) of this section only if a physician certifies the content specified in paragraph (c)(1), (c)(4), (d), (e) or (f)(1) of this section, as appropriate.

(c) *Outpatient physical therapy and speech pathology services—*(1) *Content of certification.* (i) The individual needs, or needed, physical therapy or speech pathology services.

(ii) The services were furnished while the individual was under the care of a physician. (For physical therapy services furnished after July 17, 1984, the physician may be a doctor of podiatric medicine, provided the services are consistent with the functions he or she is authorized to perform under State law.)

<sup>1</sup> As a condition of Medicare Part A payment for home health services furnished before July 1981, the physician was also required to certify that the services were needed for a condition for which the individual had received inpatient hospital or SNF services.

(iii) The services were furnished under a plan of treatment that meets the requirements of § 424.25.

(e) *Partial hospitalization services: Content of certification and plan of treatment requirements—*(1) *Content of certification.* (i) The individual would require inpatient psychiatric care if the partial hospitalization services were not provided.

(ii) The services are or were furnished while the individual was under the care of a physician.

(iii) The services were furnished under a written plan of treatment that meets the requirements of paragraph (e)(2) of this section.

(2) *Plan of treatment requirements.* (i) The plan is an individualized plan that is established and is periodically reviewed by a physician in consultation with appropriate staff participating in the program, and that sets forth—  
(A) The physician's diagnosis;  
(B) The type, amount, duration, and frequency of the services; and  
(C) The treatment goals under the plan.

(ii) The physician determines the frequency and duration of the services taking into account accepted norms of medical practice and a reasonable expectation of improvement in the patient's condition.

**H PART 430—GRANTS TO STATES FOR MEDICAL ASSISTANCE PROGRAMS**

1. The authority citation continues to read as follows:

Authority: Sec. 1102 of the Social Security Act (42 U.S.C. 1302).

**§ 430.2 [Amended]**

2. In paragraph (b), the listing of part 16 is changed to read:

Part 16—Procedures of the Departmental Appeals Board.

**§ 430.3 [Amended]**

3. In paragraph (b), "Departmental Grants Appeals Board" is changed to "Departmental Appeals Board".

**§ 430.20 [Amended]**

4. a. In paragraph (b)(1), the following is inserted immediately before "or": "increases the payment amounts for services already included in the plan."

b. Paragraph (b)(2) is redesignated as paragraph (b)(3).

c. A new paragraph (b)(2) is added to read as follows:

(b) \* \* \*

(2) For a plan amendment that changes the State's payment method



and standards, the rules of § 447.256 of this chapter apply.

5. A new § 430.25 is added to read as follows:

**§ 430.25 Waivers of State plan requirements.**

(a) *Scope of section.* This section describes the purpose and effect of waivers, identifies the requirements that may be waived and the other regulations that apply to waivers, and sets forth the procedures that HCFA follows in reviewing and taking action on waiver requests.

(b) *Purpose of waivers.* Waivers are intended to provide the flexibility needed to enable States to try new or different approaches to the efficient and cost-effective delivery of health care services, or to adapt their programs to the special needs of particular areas or groups of recipients. Waivers allow exceptions to State plan requirements and permit a State to implement innovative programs or activities on a time-limited basis, and subject to specific safeguards for the protection of recipients and the program. Detailed rules for waivers are set forth in subpart B of part 431, subpart A of part 440, and subpart G of part 441 of this chapter.

(c) *Effect of waivers.* (1) Waivers under section 1915(b) allow a State to take the following actions:

(i) Implement a primary care case-management system or a specialty physician system.

(ii) Designate a locality to act as central broker in assisting Medicaid recipients to choose among competing health care plans.

(iii) Share with recipients (through provision of additional services) cost-savings made possible through the recipients' use of more cost-effective medical care.

(iv) Limit recipients' choice of providers (except in emergency situations and with respect to family planning services) to providers that fully meet reimbursement, quality, and utilization standards, which are established under the State plan and are consistent with access, quality, and efficient and economical furnishing of care.

(2) A waiver under section 1915(c) of the Act allows a State to include as "medical assistance" under its plan home and community based services furnished to recipients who would otherwise need inpatient care that is furnished in a hospital, SNF, ICF, or ICF/MR, and is reimbursable under the State plan.

(3) A waiver under section 1916 (a)(3) or (b)(3) of the Act allows a State to impose a deduction, cost-sharing or

similar charge of up to twice the "nominal charge" established under the plan for outpatient services, if—

(i) The outpatient services are received in a hospital emergency room but are not emergency services; and

(ii) The State has shown that Medicaid recipients have actually available and accessible to them alternative services of nonemergency outpatient services.

(d) *Requirements that are waived.* In order to permit the activities described in paragraph (c) of this section, one or more of the title XIX requirements must be waived, in whole or in part.

(1) Under section 1915(b) of the Act, and subject to certain limitations, any of the State plan requirements of section 1902 of the Act may be waived to achieve one of the purposes specified in that section.

(2) Under section 1915(c) of the Act, the following requirements may be waived:

(i) Statewideness—section 1902(a)(1).

(ii) Comparability of services—section 1902(a)(10)(B).

(iii) Income and resource rules—section 1902(a)(10)(C)(i)(III).

(3) Under section 1916 of the Act, paragraphs (a)(3) and (b)(3) require that any cost-sharing imposed on recipients be nominal in amount, and provide an exception for nonemergency services furnished in a hospital emergency room if the conditions of paragraph (c)(3) of this section are met.

(e) *Submission of waiver request.* (1) The State Governor, the head of the Medicaid agency, or an authorized designee may submit the waiver request.

(f) *Review of waiver requests.* (1) This paragraph applies to initial waiver requests and to requests for renewal or amendment of a previously approved waiver.

(2) HCFA regional and central office staff review waiver requests and submit a recommendation to the Administrator, who—

(i) Has the authority to approve or deny waiver requests; and

(ii) Does not deny a request without first consulting the Secretary.

(3) A waiver request is considered approved unless, within 90 days after the request is received by HCFA, the Administrator denies the request, or the Administrator or the Regional Administrator sends the State a written request for additional information necessary to reach a final decision. If additional information is requested, a new 90-day period begins on the day the response to the additional information request is received by the addressee.

(g) *Basis for approval.*—(1) *Waivers under section 1915 (b) and (c).* The

Administrator approves waiver requests if the State's proposed program or activity meets the requirements of the Act and the regulations at § 431.55 or subpart G of part 441 of this chapter.

(2) *Waivers under section 1916.* The Administrator approves a waiver under section 1916 of the Act if the State shows, to HCFA's satisfaction, that the Medicaid recipients have available and accessible to them sources, other than a hospital emergency room, where they can obtain necessary nonemergency outpatient services.

(h) *Effective date and duration of waivers.*—(1) *Effective date.* Waivers receive a prospective effective date determined, with State input, by the Administrator. The effective date is specified in the letter of approval to the State.

(2) *Duration of waivers.*—(i) *Home and community-based services under section 1915(c).* The initial waiver is for a period of three years and may be renewed thereafter for periods of five years.

(ii) *Waivers under sections 1915(b) and 1916.* The initial waiver is for a period of two years and may be renewed for additional periods of up to two years as determined by the Administrator.

(3) *Renewal of waivers.* (i) A renewal request must be submitted at least 90 days (but not more than 120 days) before a currently approved waiver expires, to provide adequate time for HCFA review.

(ii) If a renewal request for a section 1915(c) waiver proposes a change in services provided, eligible population, service area, or statutory sections waived, the Administrator may consider it a new waiver, and approve it for a period of three years.

**§ 430.33 [Amended]**

6. In paragraph (c)(2), the word "Grant" is removed.

**§ 430.42 [Amended]**

7.a. In paragraph (b)(1), the word "Grant" is removed.

b. In the introductory text of paragraph (b)(2), "Chairperson" is changed to "Chair", and the word "Grants" is removed.

**I. Part 431**

**PART 431—STATE ORGANIZATION AND GENERAL ADMINISTRATION**

1. The authority citation continues to read as follows:

Authority: Sec. 1102 of the Social Security Act (42 U.S.C. 1302).



2. Subpart B is revised to read as follows:

**Subpart B—General Administrative Requirement**

- 431.40 Basis and scope.
- 431.50 Statewide operation.
- 431.51 Free choice of providers.
- 431.52 Payments for services furnished out of State.
- 431.53 Assurance of transportation.
- 431.54 Exceptions to certain State plan requirements.
- 431.55 Waiver of other Medicaid requirements.
- 431.56 Special waiver provisions applicable to American Samoa.

**Subpart B—General Administrative Requirements**

**§ 431.40 Basis and scope.**

(a) This subpart sets forth State plan requirements and exceptions that pertain to the following administrative requirements and provisions of the Act:

- (1) Statewide—section 1902(a)(1);
- (2) Proper and efficient administration—section 1902(a)(4);
- (3) Comparability of services—section 1902(a)(10) (B)-(E);
- (4) Payment for services furnished outside the State—section 1902(a)(16);
- (5) Free choice of providers—section 1902(a)(23);
- (6) Special waiver provisions applicable to American Samoa and the Northern Mariana Islands—section 1902(j); and
- (7) Exceptions to, and waiver of, State plan requirements—sections 1915 (a)-(c) and 1916 (a)(3) and (b)(3).

(b) Other applicable regulations include the following:

- (1) Section 430.25 Waivers of State plan requirements.
- (2) Section 440.250 Limits on comparability of services.

**§ 431.50 Statewide operation.**

(a) *Statutory basis.* Section 1902(a)(1) of the Act requires a State plan to be in effect throughout the State, and section 1915 permits certain exceptions.

(b) *State plan requirements.* A State plan must provide that the following requirements must be met:

- (1) The plan will be in operation statewide through a system of local offices, under equitable standards for assistance and administration that are mandatory throughout the State.
- (2) If administered by political subdivisions of the State, the plan will be mandatory on those subdivisions.
- (3) The agency will ensure that the plan is continuously in operation in all local offices or agencies through—
- (i) Methods for informing staff of State policies, standards, procedures, and instructions;

- (ii) Systematic planned examination and evaluation of operations in local offices by regularly assigned State staff who make regular visits; and
- (iii) Reports, controls, or other methods.

(c) *Exceptions.* (1) "Statewide operation" does not mean, for example, that every source of service must furnish the service State-wide. The requirement does not preclude the agency from contracting with a comprehensive health care organization (such as an HMO or a rural health clinic) that serves a specific area of the State, to furnish services to Medicaid recipients who live in that area and chose to receive services from that HMO or rural health clinic. Recipients who live in other parts of the State may receive their services from other sources.

(2) Other allowable exceptions and waivers are set forth in §§ 431.54 and 431.55.

**§ 431.51 Free choice of providers.**

(a) *Statutory basis.* This section is based on sections 1902(a)(23), 1902(e)(2), and 1915 (a) and (b) of the Act.

(1) Section 1902(a)(23) of the Act provides that recipients may obtain services from any qualified Medicaid provider that undertakes to provide the services to them.

(2) Section 1915(a) of the Act provides that a State shall not be found out of compliance with section 1902(a)(23) solely because it imposes certain specified allowable restrictions on freedom of choice.

(3) Section 1915(b) of the Act authorizes waiver of the section 1902(a)(23) freedom of choice of providers requirement in certain specified circumstances, but not with respect to providers of family planning services.

(4) Section 1902(a)(23), as amended by section 4113(c) of OBRA '87, provides that, for services furnished after June 1988, a recipient enrolled in a primary care case-management system, an HMO, or a similar entity, may not be denied freedom of choice of qualified providers of family planning services.

(5) Section 1902(e)(2), as amended by section 4113(c)(2) of OBRA '87, provides that HMO enrollees deemed eligible only for services furnished by the HMO (while they complete a minimum enrollment period) may, as an exception, seek family planning services from any qualified provider.

(b) *State plan requirements.* A State plan, except the plan for Puerto Rico, the Virgin Islands, or Guam, must provide as follows:

(1) Except as provided under paragraph (c) of this section, a recipient

may obtain Medicaid services from any institution, agency, pharmacy, person, or organization that is—

- (i) Qualified to furnish the services; and
- (ii) Willing to furnish them to that particular recipient.

This includes an organization that furnishes, or arranges for the furnishing of, Medicaid services on a prepayment basis.

(2) A recipient enrolled in a primary care case-management system, an HMO, or other similar entity will not be restricted in freedom of choice of providers of family planning services.

(c) *Exceptions.* Paragraph (b) of this section does not prohibit the agency from—

(1) Establishing the fees it will pay providers for Medicaid services;

(2) Setting reasonable standards relating to the qualifications of providers; or

(3) Subject to paragraph (b)(2) of this section, restricting recipients' free choice of providers in accordance with one or more of the exceptions set forth in § 431.54, or under a waiver as provided in § 431.55.

(d) *Certification requirement.* (1) *Content of certification.* If a State implements a project under one of the exceptions allowed under § 431.54 (d), (e) or (f), it must certify to HCFA that the statutory safeguards and requirements for an exception under section 1915(a) of the Act are met.

(2) *Timing of certification.* (i) For an exception under § 431.54(d), the State may not institute the project until after it has submitted the certification and HCFA has made the findings required under the Act, and so notified the State.

(ii) For exceptions under § 431.54 (e) or (f), the State must submit the certificate by the end of the quarter in which it implements the project.

**§ 431.52 Payments for services furnished out of State.**

(a) *Statutory basis.* Section 1902(a)(16) of the Act authorizes the Secretary to prescribe State plan requirements for furnishing Medicaid to State residents who are absent from the State.

(b) *Payment for services.* A State plan must provide that the State will pay for services furnished in another State to the same extent that it would pay for services furnished within its boundaries if the services are furnished to a recipient who is a resident of the State, and any of the following conditions is met:

- (1) Medical services are needed because of a medical emergency;



(2) Medical services are needed and the recipient's health would be endangered if he were required to travel to his State of residence;

(3) The State determines, on the basis of medical advice, that the needed medical services, or necessary supplementary resources, are more readily available in the other State;

(4) It is general practice for recipients in a particular locality to use medical resources in another State.

(c) *Cooperation among States.* The plan must provide that the State will establish procedures to facilitate the furnishing of medical services to individuals who are present in the State and are eligible for Medicaid under another State's plan.

#### § 431.53 Assurance of transportation.

A State plan must—

(a) Specify that the Medicaid agency will ensure necessary transportation for recipients to and from providers; and

(b) Describe the methods that the agency will use to meet this requirement.

(Sec. 1902(a)(4) of the Act)

#### § 431.54 Exceptions to certain State plan requirements.

(a) *Statutory basis.* Section 1915(a) of the Act provides that a State shall not be deemed to be out of compliance with the requirements of sections 1902(a) (1), (10), or (23) of the Act solely because it has elected any of the exceptions set forth in paragraphs (b) and (d) through (f) of this section.

(b) *Additional services under a prepayment system.* If the Medicaid agency contracts on a prepayment basis with an organization that provides services additional to those offered under the State plan, the agency may restrict the provision of the additional services to recipients who live in the area served by the organization and wish to obtain services from it.

(c) [Reserved]

(d) *Special procedures for purchase of medical devices and laboratory and X-ray tests.* The Medicaid agency may establish special procedures for the purchase of medical devices or laboratory and X-ray tests (as defined in § 440.30 of this chapter) through a competitive bidding process or otherwise, if the State assures, in the certification required under § 431.51(d), and HCFA finds, as follows:

(1) Adequate services or devices are available to recipients under the special procedures.

(2) Laboratory services are furnished through laboratories that meet the following requirements:

(i) They are independent laboratories, or inpatient or outpatient hospital laboratories that provide services for individuals who are not hospital patients, or physician laboratories that process at least 100 specimens for other physicians during any calendar year.

(ii) They meet the requirements of subpart M of part 405 or part 482 of this chapter.

(iii) Laboratories that require an interstate license under 42 CFR part 74 are licensed by HCFA or receive an exemption from the licensing requirement by the College of American Pathologists. (Hospital and physician laboratories may participate in competitive bidding only with regard to services to non-hospital patients and other physicians' patients, respectively.)

(3) Any laboratory from which a State purchases services under this section has no more than 75 percent of its charges based on services to Medicare beneficiaries and Medicaid recipients.

(e) *Lock-in of recipients who over-utilize Medicaid services.* If a Medicaid agency finds that a recipient has utilized Medicaid services at a frequency or amount that is not medically necessary, as determined in accordance with utilization guidelines established by the State, the agency may restrict that recipient for a reasonable period of time to obtain Medicaid services from designated providers only. The agency may impose these restrictions only if the following conditions are met:

(1) The agency gives the recipient notice and opportunity for a hearing (in accordance with procedures established by the agency) before imposing the restrictions.

(2) The agency ensures that the recipient has reasonable access (taking into account geographic location and reasonable travel time) to Medicaid services of adequate quality.

(3) The restrictions do not apply to emergency services furnished to the recipient.

(f) *Lock-out of providers.* If a Medicaid agency finds that a Medicaid provider has abused the Medicaid program, the agency may restrict the provider, through suspension or otherwise, from participating in the program for a reasonable period of time.

Before imposing any restriction, the agency must meet the following conditions:

(1) Give the provider notice and opportunity for a hearing, in accordance with procedures established by the agency.

(2) Find that in a significant number or proportion of cases, the provider has:

(i) Furnished Medicaid services at a frequency or amount not medically

necessary, as determined in accordance with utilization guidelines established by the agency; or

(ii) Furnished Medicaid services of a quality that does not meet professionally recognized standards of health care.

(3) Notify HCFA and the general public of the restriction and its duration.

(4) Ensure that the restrictions do not result in denying recipients reasonable access (taking into account geographic location and reasonable travel time) to Medicaid services of adequate quality, including emergency services.

#### § 431.55 Waiver of other Medicaid requirements.

(a) *Statutory basis.* Section 1915(b) of the Act, authorizes the Secretary to waive the requirements of sections 1902 of the Act to the extent he or she finds proposed improvements or specified practices in the provision of services under Medicaid to be cost-effective, efficient, and consistent with the objectives of the Medicaid program. Sections 1915 (e), (f), and (h) of the Act prescribe how such waivers are to be approved, continued, monitored, and terminated. Sections 1918 (a)(3) and (b)(3) of the Act specify the circumstances under which the Secretary is authorized to waive the requirement that cost-sharing amounts be nominal.

(1) General requirements for submittal of waiver requests, and the procedures that HCFA follows for review and action on those requests are set forth in § 430.25 of this chapter.

(2) In applying for a waiver to implement an approvable project under paragraph (c), (d), (e), or (f) of this section, a Medicaid agency must document in the waiver request and maintain data regarding:

(i) The cost-effectiveness of the project;

(ii) The effect of the project on the accessibility and quality of services; and

(iii) The anticipated impact of the project on the State's Medicaid program.

(3) No waiver under this section may be granted for a period longer than 2 years, unless the agency requests a continuation of the waiver.

(4) HCFA monitors the implementation of waivers granted under this section to ensure that requirements for such waivers are being met.

(i) If monitoring demonstrates that the agency is not in compliance with the requirements for a waiver under this section, HCFA gives the agency notice and opportunity for a hearing.



(ii) If, after a hearing, HCFA finds an agency to be out of compliance with the requirements of a waiver, HCFA terminates the waiver and gives the agency a specified date by which it must demonstrate that it meets the applicable requirements of section 1902 of the Act.

(c) *Case-management system.* (1) Waivers of appropriate requirements of section 1902 of the Act may be authorized for a State to implement a primary care case-management system or specialty physician services system.

(i) Under a primary care case-management system the agency assures that a specific person or persons or agency will be responsible for locating, coordinating, and monitoring all primary care or primary care and other medical care and rehabilitative services on behalf of a recipient.

(ii) A specialty physician services system allows States to restrict recipients of specialty services to designated providers of such services, even in the absence of a primary care case-management system.

(2) A waiver under this paragraph (c) may not be approved unless the State's request assures that the restrictions—

(i) Do not apply in emergency situations; and

(ii) Do not substantially impair access to medically necessary services of adequate quality.

(d) *Locality as central broker.*

Waivers of appropriate requirements of section 1902 of the Act may be authorized for a State to allow a locality to act as a central broker to assist recipients in selecting among competing health care plans. States must ensure that access to medically necessary services of adequate quality is not substantially impaired.

(1) A locality is any defined jurisdiction, e.g., district, town, city, borough, county, parish, or State.

(2) A locality may use any agency or agent, public or private, profit or nonprofit, to act on its behalf in carrying out its central broker function.

(e) *Sharing of cost savings.* (1) Waivers of appropriate requirements of section 1902 of the Act may be authorized for a State to share with recipients the cost savings resulting from the recipients' use of more cost-effective medical care.

(2) Sharing is through the provision of additional services, including—

(i) Services furnished by a plan selected by the recipient; and

(ii) Services expressly offered by the State as an inducement for recipients to participate in a primary care case-management system, a competing health care plan or other system that furnishes

health care services in a more cost-effective manner.

(f) *Restriction of freedom of choice—*

(1) Waiver of appropriate requirements of section 1902 of the Act may be authorized for States to restrict recipients to obtaining services from (or through) qualified providers or practitioners that meet, accept, and comply with the State reimbursement, quality and utilization standards specified in the State's waiver request.

(2) An agency may qualify for a waiver under this paragraph (f) only if its applicable State standards are consistent with access, quality and efficient and economic provision of covered care and services and the restrictions it imposes—

(i) Do not apply to recipients residing at a long-term care facility when a restriction is imposed unless the State arranges for reasonable and adequate recipient transfer.

(ii) Do not discriminate among classes of providers on grounds unrelated to their demonstrated effectiveness and efficiency in providing those services; and

(iii) Do not apply in emergency circumstances.

(3) Demonstrated effectiveness and efficiency refers to reducing costs or slowing the rate of cost increase and maximizing outputs or outcomes per unit of cost.

(g) *Cost sharing requirement.* (1) Under sections 1916(a)(3) and (b)(3) of the Act, for nonemergency services furnished in a hospital-emergency room, the Secretary may by waiver permit a State to impose a copayment of up to double the "nominal" copayment amounts determined under § 447.54(a)(3) of this chapter.

(2) Nonemergency services are services that do not meet the definition of emergency services at § 447.53(b)(4) of this chapter.

(3) In order for a waiver to be approved under this paragraph (g), the State must establish to the satisfaction of HCFA, that alternative sources of nonemergency, outpatient services are available and accessible to recipients.

(4) Although, in accordance with paragraph (b)(3) of this section, a waiver will generally be granted for a 2 year duration, HCFA will re-evaluate waivers approved under this paragraph (g) if the State increases the nominal copayment amounts in effect when the waiver was approved.

(5) A waiver approved under this paragraph cannot apply to services furnished before the waiver was granted.

#### § 431.56 Special waiver provisions applicable to American Samoa and the Northern Mariana Islands.

(a) *Statutory basis.* Section 1902(j) of the Act provides for waiver of all but three of the title XIX requirements, in the case of American Samoa and the Northern Mariana Islands.

(b) *Waiver provisions.* American Samoa or the Northern Mariana Islands may request, and HCFA may approve, a waiver of any of the title XIX requirements except the following:

(1) The Federal medical assistance percentage specified in section 1903 of the Act and § 433.10(b) of this chapter.

(2) The limit imposed by section 1108(c) of the Act on the amount of Federal funds payable to American Samoa or the Northern Mariana Islands for care and services that meet the section 1905(a) definition for Medicaid assistance.

(3) The requirement that payment be made only with respect to expenditure made by American Samoa or the Northern Mariana Islands for care and services that meet the section 1905(a) definition of medical assistance.

J. Part 435.

#### PART 435—ELIGIBILITY IN THE STATES, DISTRICT OF COLUMBIA, THE NORTHERN MARIANA ISLANDS, AND AMERICAN SAMOA

1. The authority citation continues to read as follows:

Authority: Sec. 1102 of the Social Security Act (42 U.S.C. 1302).

2. Section 435.212 is revised to read as follows:

#### § 435.212 Individuals who would be ineligible if they were not enrolled in an HMO.

The agency may provide that a recipient who is enrolled in a federally qualified HMO (under a risk contract as specified in § 434.20(a)(1) of this chapter) and who becomes ineligible for Medicaid is considered to continue to be eligible—

(a) For a period specified by the agency, ending no later than 6 months from the date of enrollment; and

(b) Except for family planning services (which the recipient may obtain from any qualified provider) only for services furnished to him or her as an HMO enrollee.

3. Section 435.725 is amended to revise paragraphs (a), (c)(1) introductory text, (c)(1) (i) and (ii), (c)(4), (c)(5), and (d), to read as follows:



**§ 435.725 Post-eligibility treatment of income and resources of institutionalized individuals: Application of patient income to the cost of care.**

(a) *Basic rules.* (1) The agency must reduce its payment to an institution, for services provided to an individual specified in paragraph (b) of this section, by the amount that remains after deducting the amounts specified in paragraphs (c) and (d) of this section, from the individual's total income.

(2) The individual's income must be determined in accordance with paragraph (e) of this section.

(3) Medical expenses must be determined in accordance with paragraph (f) of this section.

*(c) Required deductions. \* \* \**

(1) *Personal needs allowance.* A personal needs allowance that is reasonable in amount for clothing and other personal needs of the individual while in the institution. This protected personal needs allowance must be at least—

(i) \$30 a month for an aged, blind, or disabled individual, including a child applying for Medicaid on the basis of blindness or disability;

(ii) \$60 a month for an institutionalized couple if both spouses are aged, blind, or disabled and their income is considered available to each other in determining eligibility; and

(4) *Expenses not subject to third party payment.* Amounts for incurred expenses for medical or remedial care that are not subject to payment by a third party, including—

(i) Medicare and other health insurance premiums, deductibles, or coinsurance charges; and

(ii) Necessary medical or remedial care recognized under State law but not covered under the State's Medicaid plan, subject to reasonable limits the agency may establish on amounts of these expenses.

(5) *Continued SSI and SSP benefits.* The full amount of SSI and SSP benefits that the individual continues to receive under sections 1611(e)(1) (E) and (G) of the Act.

(d) *Optional deduction: Allowance for home maintenance.* For single individuals and couples, an amount (in addition to the personal needs allowance) for maintenance of the individual's or couple's home if—

(1) The amount is deducted for not more than a 6-month period; and

(2) A physician has certified that either of the individuals is likely to return to the home within that period.

4. Section 435.733 is amended to revise paragraphs (a), (c)(1) introductory text, (c)(1) (i) and (ii), (c)(4), (c)(5), and (d), to read as follows:

**§ 435.733 Post-eligibility treatment of income and resources of institutionalized individuals: Application of patient income to cost of care.**

(a) *Basic rules.* (1) The agency must reduce its payment to an institution, for services provided to an individual specified in paragraph (b) of this section, by the amount that remains after deducting the amounts specified in paragraphs (c) and (d) of this section, from the individual's total income.

(2) The individual's income must be determined in accordance with paragraph (e) of this section.

(3) Medical expenses must be determined in accordance with paragraph (f) of this section.

*(c) Required deductions. \* \* \**

(1) *Personal needs allowance.* A personal needs allowance that is reasonable in amount for clothing and other personal needs of the individual while in the institution. This protected personal needs allowance must be at least—

(i) \$30 a month for an aged, blind, or disabled individual, including a child applying for Medicaid on the basis of blindness or disability;

(ii) \$60 a month for an institutionalized couple if both spouses are aged, blind, or disabled and their income is considered available to each other in determining eligibility; and

(4) *Expenses not subject to third party payment.* Amounts for incurred expenses for medical or remedial care that are not subject to payment by a third party, including—

(i) Medicare and other health insurance premiums, deductibles, or coinsurance charges; and

(ii) Necessary medical or remedial care recognized under State law but not covered under the State's Medicaid plan, subject to reasonable limits the agency may establish on amounts of these expenses.

(5) *Continued SSI and SSP benefits.* The full amount of SSI and SSP benefits that the individual continues to receive under sections 1611(e)(1) (E) and (G) of the Act.

(d) *Optional deduction: Allowance for home maintenance.* For single individuals and couples, an amount (in addition to the personal needs allowance) for maintenance of the individual's or couple's home if—

(1) The amount is deducted for not more than a 6-month period; and

(2) A physician has certified that either of the individuals is likely to return to the home within that period.

5. Section 435.832 is amended to revise paragraphs (a), (c)(1) introductory text, (c)(1) (i) and (ii) (c)(4), and (d), to read as follows:

**§ 435.832 Post-eligibility treatment of income and resources of institutionalized individuals: Application of patient income to the cost of care.**

(a) *Basic rules.* (1) The agency must reduce its payment to an institution, for services provided to an individual specified in paragraph (b) of this section, by the amount that remains after deducting the amounts specified in paragraphs (c) and (d) of this section, from the individual's total income.

(2) The individual's income must be determined in accordance with paragraph (e) of this section.

(3) Medical expenses must be determined in accordance with paragraph (f) of this section.

*(c) Required deductions. \* \* \**

(1) *Personal needs allowance.* A personal needs allowance that is reasonable in amount for clothing and other personal needs of the individual while in the institution. This protected personal needs allowance must be at least—

(i) \$30 a month for an aged, blind, or disabled individual, including a child applying for Medicaid on the basis of blindness or disability.

(ii) \$60 a month for an institutionalized couple if both spouses are aged, blind, or disabled and their income is considered available to each other in determining eligibility; and

(4) *Expenses not subject to third party payment.* Amounts for incurred expenses for medical or remedial care that are not subject to payment by a third party, including—

(i) Medicare and other health insurance premiums, deductibles, or coinsurance charges; and

(ii) Necessary medical or remedial care recognized under State law but not covered under the State's Medicaid plan, subject to reasonable limits the agency may establish on amounts of these expenses.

(d) *Optional deduction: Allowance for home maintenance.* For single individuals and couples, an amount (in addition to the personal needs allowance) for maintenance of the individual's or couple's home if—

(1) The amount is deducted for not more than a 6-month period; and



(2) A physician has certified that either of the individuals is likely to return to the home within that period.

K. Part 436.

#### **PART 436—ELIGIBILITY IN GUAM, PUERTO RICO AND THE VIRGIN ISLANDS**

1. The authority citation continues to read as follows:

Authority: Sec. 1102 of the Social Security Act (42 U.S.C. 1302).

2. Section 436.832 is amended to revise paragraphs (a), (c)(1), (c)(4) and (d) to read as follows:

**§ 436.832 Post-eligibility treatment of income and resources of institutionalized individuals: Application of patient income to cost of care.**

(a) *Basic rules.* (1) The agency must reduce its payment to an institution, for services provided to an individual specified in paragraph (b) of this section, by the amount that remains after deducting the amounts specified in paragraphs (c) and (d) of this section from the individual's total income.

(2) The individual's income must be determined in accordance with paragraph (e) of this section.

(3) Medical expenses must be determined in accordance with paragraph (f) of this section.

(c) *Required deductions.* \* \* \*

(1) *Personal needs allowance.* A personal needs allowance that is reasonable in amount for clothing and other personal needs of the individual while in the institution. This protected personal needs allowance must be at least—

(i) \$30 a month for an aged, blind, or disabled individual, including a child applying for Medicaid on the basis of blindness or disability;

(ii) \$60 a month for an institutionalized couple if both spouses are aged, blind, or disabled and their income is considered available to each other in determining eligibility; and

(iii) For other individuals, a reasonable amount set by the agency, based on a reasonable difference in their personal needs from those of the aged, blind, or disabled.

(4) *Expenses not subject to third party payment.* Amounts for incurred expenses for medical or remedial care that are not subject to payment by a third party, including—

(i) Medicare and other health insurance premiums, deductibles, or coinsurance charges; and

(ii) Necessary medical or remedial care recognized under State law but not covered under the State's Medicaid plan, subject to reasonable limits the agency may establish on amounts of these expenses.

(d) *Optional deduction: Allowance for home maintenance.* For single individuals and couples, an amount (in addition to the personal needs allowance) for maintenance of the individual's or couple's home if—

(i) The amount is deducted for not more than a 6-month period; and

(ii) A physician has certified that either of the individuals is likely to return to the home within that period.

L. Part 440.

#### **PART 440—SERVICES: GENERAL PROVISIONS**

1. The authority citation continues to read as follows:

Authority: Sec. 1102 of the Social Security Act (42 U.S.C. 1302).

2. Section 440.50 is revised to read as follows:

**§ 440.50 Physicians' services and medical and surgical services of a dentist.**

(a) "Physicians' services," whether furnished in the office, the recipient's home, a hospital, a skilled nursing facility, or elsewhere, means services furnished by a physician—

(1) Within the scope of practice of medicine or osteopathy as defined by State law; and

(2) By or under the personal supervision of an individual licensed under State law to practice medicine or osteopathy.

(b) "Medical and surgical services of a dentist" means medical and surgical services furnished, on or after January 1, 1988, by a doctor of dental medicine or dental surgery if the services are services that—

(1) If furnished by a physician, would be considered physician's services.

(2) Under the law of the State where they are furnished, may be furnished either by a physician or by a doctor of dental medicine or dental surgery; and

(3) Are furnished by a doctor of dental medicine or dental surgery who is authorized to furnish those services in the State in which he or she furnished the services.

3. Section 440.90 is revised to read as follows:

**§ 440.90 Clinic services.**

*Clinic services* means preventive, diagnostic, therapeutic, rehabilitative, or palliative services that are furnished by a facility that is not part of a hospital

but is organized and operated to provide medical care to outpatients. The term includes the following services furnished to outpatients:

(a) Services furnished at the clinic by or under the direction of a physician or dentist.

(b) Services furnished outside the clinic, by clinic personnel under the direction of a physician, to an eligible individual who does not reside in a permanent dwelling or does not have a fixed home or mailing address.

(c) Services furnished at the clinic that are nurse-midwife services, as defined in § 440.165.

M. Part 441.

#### **PART 441—SERVICES: REQUIREMENTS AND LIMITS APPLICABLE TO SPECIFIC SERVICES**

1. The authority citation continues to read as follows:

Authority: Sec. 1102 of the Social Security Act (42 U.S.C. 1302).

**§ 441.10 [Amended]**

2. Paragraph (f) of § 441.10 is revised to read as follows:

(f) Section 1903(i)(1) for organ transplant procedures, and 1903(i)(5) for certain prescribed drugs.

3. A new § 441.35 is added, to read as follows:

**§ 441.35 Organ transplants.**

(a) FFP is available in expenditures for services furnished in connection with organ transplant procedures only if the State plan includes written standards for the coverage of those procedures, and those standards provide that—

(1) Similarly situated individuals are treated alike; and

(2) Any restriction on the practitioners or facilities that may provide organ transplant procedures is consistent with the accessibility of high quality care to individuals eligible for the procedures under the plan.

(b) Nothing in paragraph (a) permits a State to provide, under its plan, services that are not reasonable in amount, duration, and scope to achieve their purpose.

N. Part 482.

#### **PART 482—CONDITIONS OF PARTICIPATION FOR HOSPITALS**

1. The authority citation continues to read as follows:

Authority: Secs. 1102, 1138, 1814(a)(6), 1861 (e), (f), (k), (r), (v)(1)(G), (z), and (ee), 1864, 1871, 1883, 1886, 1902(a)(30), and 1905(a) of the Social Security Act (42 U.S.C. 1302, 1338, 1395f(a)(6), 1395x (e), (f), (k), (r), (v)(1)(G), (z),



and (ee), 1395aa, 1395hh, 1395tt, 1395ww, 1396a(a)(30), and 1396(a)).

2. In § 482.12, the introductory text of paragraph (c) is republished and paragraphs (c)(1) introductory text, (c)(2) and (c)(4) are revised to read as follows:

**§ 482.12 Condition of participation: Governing body.**

(c) *Standard: Care of patients.* In accordance with hospital policy, the governing body must ensure that the following requirements are met:

(1) Every Medicare patient is under the care of:

(2) Patients are admitted to the hospital only on the recommendation of a licensed practitioner permitted by the State to admit patients to a hospital. If a Medicare patient is admitted by a practitioner not specified in paragraph (c)(1) of this section, that patient is under the care of a doctor of medicine or osteopathy.

(4) A doctor of medicine or osteopathy is responsible for the care of each Medicare patient with respect to any medical or psychiatric problem that is present on admission or develops during hospitalization and that is not specifically within the scope of practice, as defined by the medical staff and permitted by State law and as limited by paragraphs (c)(1) (iv) and (v) of this section, of any of the practitioners specified in paragraphs (c)(1) (ii) through (v) of this section.

O. Part 485.

**PART 485—CONDITIONS OF PARTICIPATION: SPECIALIZED PROVIDERS**

1. The authority citation continues to read as follows:

Authority: Secs. 1102, 1861 (aa) and (cc), and 1871 of the Social Security Act (42 U.S.C. 1302, 1395x (aa) and (cc), and 1395(hh)).

2. The § 485.58, paragraph (e) is revised to read as follows:

**§ 485.58 Condition of participation: Comprehensive rehabilitation program.**

(e) *Standard: Scope and site of*

*services—(1) Basic requirements.* The facility must provide all the CORF services required in the plan of treatment and, except as provided in paragraph (e)(2) of this section, must provide the services on its premises.

(2) *Exceptions.* Physical therapy, occupational therapy, and speech pathology services furnished away from the premises of the CORF may be covered as CORF services if Medicare payment is not otherwise made for these services. In addition, a single home visit is covered if there is need to evaluate the potential impact of the home environment on the rehabilitation goals.

P. Part 489

Q. Technical Amendments.

1. Nomenclature Changes. Throughout this chapter IV, all references to "section 1910(c) of the Act" are changed to "section 1910(b) of the Act".

**PART 400—INTRODUCTION; DEFINITIONS**

1. The authority citation for part 400 continues to read as follows:

Authority: Secs. 1102 and 1871 of the Social Security Act (42 U.S.C. 1302 and 1395hh) and 44 U.S.C. chapter 35.

**§ 400.200 [Amended]**

2. In § 400.200, the following statements are added in alphabetical order:

*CMF* stands for competitive medical plan.

*Conditions of participation* includes requirements for participation as the latter term is used in part 483 of this chapter.

*Condition level* deficiencies includes deficiencies with respect to "level A requirements" as the latter term is used in parts 442 and 483 of this chapter.

*CORF* stands for comprehensive outpatient rehabilitation facility.

*HCPP* stands for health care prepayment plan.

*ICF/MR* stands for intermediate care facility for the mentally retarded.

*OIG* stands for the Department's Office of the Inspector General.

**§ 400.202 [Amended]**

3. In § 400.202, in the definition of

*Provider*, the phrase "effective November 1, 1983 through September 30, 1986," is removed.

**§ 400.203 [Amended]**

4. In § 400.203, the definition of *Services* is revised to read: *Services* means the types of medical assistance specified in section 1905(a) of the Act and defined in subpart A of part 440 of this chapter.

**§ 408.24 [Amended]**

5. In § 408.24, in paragraphs (a)(6)(ii) and (a)(7)(ii), "section 9319(c) of Pub. L. 99-509" is changed to "section 1837(i) of the Act".

**§ 410.24 [Amended]**

6. In § 410.24, the superscript for the footnote in the text and in the footnote is changed from "6" to "1".

**§ 410.60 [Amended]**

7. In § 410.60, the following changes are made:

(a) In paragraph (a)(2), "subpart B of part 424 of this chapter" is changed to "§ 410.63".

(b) In paragraph (c)(2), the superscript for the footnote in the text and in the footnote is changed from "7" to "2".

**§ 410.62 [Amended]**

8. In § 410.62, in paragraph (a)(2)(iii), "subpart B of part 424 of this chapter" is changed to "§ 410.63".

**§ 410.160 [Amended]**

9. In § 410.160, in paragraph (b)(1), the superscript for the footnote in the text and in the footnote is changed from "8" to "3".

**§ 410.161 [Amended]**

10. In § 410.161, the following changes are made:

a. In paragraph (a)(3), "Part A or" is inserted before "Part B", and the following sentence is added at the end: "The Part B blood deductible is reduced to the extent that a blood deductible has been applied under Part A."

b. Paragraph (a)(6) is removed.



# **PART 417—HEALTH MAINTENANCE ORGANIZATIONS COMPETITIVE MEDICAL PLANS, AND HEALTH CARE PREPAYMENT PLANS**

1. The authority citation for part 417 continues to read as follows:

**Authority:** Secs. 1102, 1833(a)(1)(A), 1861(s)(2)(H), 1871, 1874, and 1876 of the Social Security Act (42 U.S.C. 1302, 1395l(a)(1)(A), 1395x(s)(2)(H), 1395hh, 1395kk, and 1395mm); sec. 114(c) of Pub. L. 97-248 (42 U.S.C. 1395mm note); 31 U.S.C. 9701; and secs. 215 and 1301 through 1318 of the Public Health Service Act (42 U.S.C. 216 and 300e through 300e-17), unless otherwise noted.

## **§ 417.104 [Amended]**

2. In § 417.104, the footnote to paragraph (e) is revised as follows:

<sup>1</sup> Further information entitled "Guidelines for Rating by Class" may be obtained from the Office of Prepaid Health Care, Division of Qualification Analysis, HHS Cohen Bldg., Room 4360, 330 Independence Ave. SW., Washington, DC 20201.

## **§ 417.107 [Amended]**

3. In § 417.107, the following changes are made:

- a. In paragraph (i), "42 CFR part 405" is changed to "part 405 of this chapter".
- b. Paragraph (j)(2)(i) is revised to read:  
(j) \* \* \*  
(2) \* \* \*

(i) A copy of the report, if any, filed with HCFA, containing the information that disclosing entities are required to report under §§ 420.206 and 455.104 of this chapter; and

## **§ 417.112 [Amended]**

4. In § 417.112, in the concluding text at the end of paragraph (d), the superscript "1" and the corresponding footnote are removed.

## **§ 417.144 [Amended]**

5. In § 417.144, paragraph (e) is revised to read as follows:

(e) The Secretary will publish on a monthly basis in the *Federal Register* the names, addresses, and descriptions of the service areas of the newly qualified HMOs. A cumulative list of qualified HMOs may be contained by writing the Document Control Unit, Office of Prepaid Health Care, Office of Compliance, HHS Cohen Bldg., room 4360, 330 Independence Ave., SW., Washington, DC 20201, or by visiting that Office between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday. Interested persons may contact that Office during those hours to make an appointment to obtain additional information regarding qualified HMOs.

## **§ 417.242 [Amended]**

6. In § 417.242, paragraph (b)(7) is removed and reserved and the footnote is also removed.

## **§ 417.243 [Amended]**

7. In § 417.243, paragraph (b), "§§ 405.480, 413.55, and 413.24" is changed to "§§ 405.480, 413.24, and 413.53".

## **§ 417.404 [Amended]**

8. In § 417.404, paragraph (b)(1), the last sentence is removed.

## **§ 417.406 [Amended]**

9. In § 417.406, the following changes are made:

- a. In paragraph (a)(2), "§ 110.604 of this title." is changed to "§ 417.143".
- b. In paragraph (a)(2)(i), "(f)" is removed.
- c. In paragraph (a)(2)(ii), the last three words "or an HMO" are removed.
- d. In paragraph (a)(3), "§ 110.605 (a) through (d) of this title" is changed to "§ 417.144 (a) through (d)", and "subpart A of part 110, and § 110.603" is changed to "§§ 417.100 through 417.109, and § 417.142".

## **§ 417.407 [Amended]**

10. In § 417.407, the following changes are made:

- a. In paragraph (b), "subpart A of part 110 of this title." is changed to "§§ 417.100 through 417.109".
- b. In paragraph (c)(4), "§ 110.108(b) of this title" is changed to "§ 417.107(b)".
- c. In paragraph (c)(5), "110.108(a)(1) (i) through (iv) and (a)(3) of this title." is changed to "§ 417.107(a)(1) (i) through (iv) and (a)(3)".

## **§ 417.408 [Amended]**

11. In § 417.408, paragraph (a) the designation of (a)(1) and paragraph (a)(2) are removed and the text is run together.

## **§ 417.418 [Amended]**

12. In § 417.418, paragraph (b), "§ 110.108(h) of this title." is changed to "§ 417.107(h)".

## **§ 417.478 [Amended]**

13. In § 417.478, paragraph (d), "§ 110.108(j)(1) of this title" is changed to "§ 417.107".

## **§ 417.522 [Amended]**

14. In § 417.522, paragraph (a)(3)(iii) is revised to read:

- (a) \* \* \*
- (3) \* \* \*
- (iii) The successor organization meets the requirements to qualify as an eligible organization under this subpart.

## **§ 417.594 [Amended]**

15. In § 417.594, paragraph (b)(1)(i), "§ 110.105(b) of this title;" is changed to "§ 417.104(b);".

## **§ 424.1 [Amended]**

16. In § 424.1, the following changes are made:

a. The heading "(c) *Other applicable rules*" is inserted immediately before the concluding text of paragraph (b) that begins "Except for \* \* \*".

b. The following sentence is added at the end of the newly designated paragraph (c):

(c) \* \* \*

The rules for physician certification of terminal illness, required in connection with hospice care, are set forth in § 418.22 of this chapter.

## **Subpart B—Physician Certification Requirements**

17. The heading of subpart B is revised to read as set forth above.

## **§ 424.10 [Amended]**

18. In § 424.10, the following changes are made:

- a. In paragraph (a), first sentence, "has a major role" is changed to "is the key figure".
- b. In paragraph (a), "1814(a)(2)" is changed to "1814(a) (2) and (3)".
- c. Paragraph (b) is revised to read as follows:

(b) *Scope.* This subpart sets forth the timing, content, and signature requirements for physician certification and recertification with respect to certain Medicare services furnished by providers.

19. In § 424.24, the following changes are made:

## **§ 424.24 Requirements for medical and other health services furnished by providers under Medicare Part B.**

a. The section heading is revised to read as set forth above.

b. Paragraph (a)(3) is removed.

c. Paragraph (b) is revised to read as follows:

(b) *General rule.* Medicare Part B pays for medical and other health services furnished by providers (and not exempted under paragraph (a) of this section) only if a physician certifies the content specified in paragraph (c)(1), (c)(4) or (e)(1) of this section, as appropriate.

d. Paragraph (d) is removed and reserved.



**§ 424.25 [Redesignated as § 410.63]**

20. Section 424.25 is redesignated as § 410.63.

**§ 435.725 [Amended]**

21. In § 435.725, the following changes are made:

a. In paragraph (c)(2), the following heading is inserted at the beginning of the paragraph: "Maintenance needs of spouse."

b. In paragraph (c)(3), the following heading is inserted at the beginning of the paragraph: "Maintenance needs of family."

**§ 435.733 [Amended]**

22. In § 435.733, the following changes are made:

a. In paragraph (c)(2), the following heading is inserted at the beginning of the paragraph: "Maintenance needs of spouse."

b. In paragraph (c)(3), the following heading is inserted at the beginning of the paragraph: "Maintenance needs of family."

**§ 435.832 [Amended]**

23. In § 435.832, the following changes are made:

a. In paragraph (c)(2), the following heading is inserted at the beginning of the paragraph: "Maintenance needs of spouse."

b. In paragraph (c)(3), the following heading is inserted at the beginning of the paragraph: "Maintenance needs of family."

**§ 435.1009 [Amended]**

24. In § 435.1009, in the first sentence of the definition of *Institution for mental disease*, "an institution" is changed to "a hospital, nursing facility, or other institution of more than 16 beds".

**§ 436.832 [Amended]**

25. In § 436.832, the following changes are made:

a. In paragraph (c)(2), the following heading is inserted at the beginning of the paragraph: "Maintenance needs of spouse."

b. In paragraph (c)(3), the following

heading is inserted at the beginning of the paragraph: "Maintenance needs of family."

**§ 440.110 [Amended]**

26. In paragraphs (a)(2)(i) and (b)(2)(ii), the phrase "Council on Medical Education" is changed to "Committee on Allied Health Education and Accreditation".

**§ 440.140 [Amended]**

27. In § 440.140(a)(2), "an institution" is changed to "a hospital, nursing facility, or other institution of more than 16 beds".

**§ 447.256 [Amended]**

28. In § 447.256, the following changes are made:

a. In paragraph (a), "45 CFR 201.2 and 201.3" is changed to "subpart B of part 430 of this chapter".

b. In paragraph (c), "45 CFR 201.3(g)" is changed to "subpart B of part 430 of this chapter".

**§ 455.20 [Amended]**

29. In § 455.20(b), "433.113 (e) and (f)" is changed to "§ 433.116 (e) and (f)".

**§ 489.66 [Amended]**

30. In § 489.66, in paragraph (a), the words "inpatient tuberculosis hospital services and" are removed, and "extended care services" is changed to "SNF care".

**PART 491—CERTIFICATION OF CERTAIN HEALTH FACILITIES**

31. The authority citation for part 491 continues to read as follows:

Authority: Sec. 1101 of the Social Security Act (42 U.S.C. 1302).

**§ 491.2 [Amended]**

32. In § 491.2, paragraph (d)(3), the phrase "has been assisting" is changed to "assisted", and "immediately preceding the effective date of this subpart" is changed to "that ended on December 31, 1986".

**PART 498—APPEALS PROCEDURES FOR DETERMINATIONS THAT AFFECT PARTICIPATION IN THE MEDICARE PROGRAM**

33. The authority citation for part 498 continues to read as follows:

Authority: Secs. 205(a), 1102, 1869(c) 1871, and 1872 of the Social Security Act (42 U.S.C. 405(a), 1302, 1395 ff(c), 1395hh and 1395ii), unless otherwise noted).

**§ 498.3 [Amended]**

34. In § 498.3, the following changes are made:

a. In paragraph (b)(10), "§ 409.10 or § 409.64" is changed to "§ 409.19 or § 410.64".

b. Paragraph (d)(2) is revised to read as follows:

(d) \* \* \*

(2) The finding that a prospective provider does not meet the conditions of participation set forth elsewhere in this chapter, if the prospective provider is, nevertheless, approved for participation in Medicare on the basis of special access certification, as provided in subpart B of part 488 of this chapter.

c. Paragraph (d)(3) is revised to read as follows:

(d) \* \* \*

(3) The refusal to enter into a provider agreement because the prospective provider is unable to give satisfactory assurance of compliance with the requirements of title XVIII of the Act.

(Catalog of Federal Domestic Assistance Program No. 13.714, Medical Assistance; Program No. 13.773, Medicare—Hospital Insurance; Program No. 13.774, Medicare—Supplementary Medical Insurance)

Editorial Note: This document was received by the Office of the Federal Register on February 20, 1991.

Dated: June 15, 1990.

Gail R. Wilensky,  
Administrator, Health Care Financing  
Administration.

Approved: July 9, 1990.

Louis W. Sullivan,  
Secretary.

[FR Doc. 91-4415 Filed 2-28-91; 8:45 am]

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# Federal Register

Friday  
March 1, 1991

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## Part III

### Environmental Protection Agency

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40 CFR Parts 86 and 600

**Fuel Economy Test Procedures;  
Alternative-Fueled Automobile CAFE  
Incentives and Fuel Economy Labeling  
Requirements; Notice of Proposed  
Rulemaking**



# ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 86 and 600

[AMS-FRL-3911-9]

RIN 2060-AC78

## Fuel Economy Test Procedures; Alternative-Fueled Automobile CAFE Incentives and Fuel Economy Labeling Requirements

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Notice of proposed rulemaking.

**SUMMARY:** The Environmental Protection Agency (EPA) proposes to amend the fuel economy regulations (40 CFR part 600) to include alternative-fueled automobiles. The Alternative Motor Fuels Act (AMFA) of 1988 (Pub. L. 100-494, October 14, 1988) includes alternative-fueled automobiles (passenger automobiles and light trucks) in the Corporate Average Fuel Economy (CAFE) program on a favorable basis to encourage the manufacture of such vehicles. The act provides CAFE credits for automobiles designed to be fueled with methanol, ethanol, other alcohols, natural gas, or dual fuel automobiles designed to operate on one or more of these alternative fuels and gasoline or diesel fuel. Fuel economy labeling requirements for alternative-fueled automobiles are also specified in the AMFA. The purpose of this notice of proposed rulemaking [NPRM] is to propose rules to codify the requirements of the AMFA. In order to save time and printing costs, some technical amendments of 40 CFR part 86 have also been included in this NPRM.

**DATES:** Public Comment: Comments on the NPRM must be submitted on or before April 1, 1991.

**ADDRESSES:** Written comments should be submitted (in duplicate if possible) to the U.S. Environmental Protection Agency, The Air Docket: Docket No. A-89-24, room M-1500 (LE-131), Waterside Mall, 401 M Street SW., Washington, DC 20460. Materials relevant to this proposed rulemaking are contained in Docket No. A-89-24. The docket is located at the above address and may be inspected from 8 a.m. until noon and from 1:30 p.m. until 3:30 p.m. Monday through Friday. A reasonable fee may be charged by EPA for copying docket materials.

**FOR FURTHER INFORMATION CONTACT:** Kenneth L. Zerafa, Certification Division, U.S. Environmental Protection Agency, 2565 Plymouth Rd., Ann Arbor, MI 48105, (313) 668-4331.

## SUPPLEMENTARY INFORMATION:

### I. Introduction

Congress enacted the Alternative Motor Fuels Act of 1988 (AMFA), Public Law 100-494 (codified at 15 U.S.C. 2001(i), 2002(e), 2006(a)(4), 2006(b)(3), and 2013, 42 U.S.C. 6374(a-d)) on October 14, 1988. Its purpose is to encourage (1) the development and widespread use of methanol, ethanol, and natural gas as transportation fuels by consumers; and (2) the production of methanol, ethanol, and natural gas-fueled motor vehicles. (S. Rep. No. 100-271 at 1-2 (1987); H. Conf. Rep. No. 100-929 at 15-16 (1988).)

The AMFA amended subchapter V, "Improving Automotive Fuel Efficiency," of the Motor Vehicle Information and Cost Savings Act (MVICSA), 15 U.S.C. 1901-2034. That subchapter, added by title III of the Energy Policy and Conservation Act of 1975, established a ten-year program designed to double the average fuel efficiency of new cars.

Specifically, subchapter V requires automakers to meet a series of fuel economy standards for passenger cars, beginning with the 1978 model year. It also requires automakers to meet CAFE standards set each year by the Secretary of Transportation for light trucks. However, it does not require that every new automobile meet the applicable standards, but only that each manufacturer's passenger car and light truck fleets achieve the standards on a sales-weighted basis. Thus, the standards are referred to as corporate average fuel economy ("CAFE") standards.

Subchapter V of the MVICSA also imposes penalties on manufacturers that fail to comply. It directs the Secretary of Transportation to fine a manufacturer \$5.00 for every tenth of a mile per gallon (mpg) by which it misses an applicable standard, multiplied by the number of automobiles in its fleet for that year. Under that formula, failure by a large manufacturer to meet a CAFE standard by even one tenth of a mpg can result in fines totalling millions of dollars.

Subchapter V assigns to EPA the task of measuring and calculating manufacturers' fleet-wide fuel economies for purposes of determining compliance with a CAFE standards.

Section 501(5) of the MVICSA defines "fuel" as including gasoline and diesel oil. It then authorizes the Secretary of Transportation, by rule, to include any other liquid or gaseous fuel in the definition if he determines it would be consistent with the need of the nation to conserve energy.

The AMFA amended subchapter V of the MVICSA by directing EPA to include

in the CAFE calculation the fuel economy of certain alternative-fueled automobiles ("automobiles" as defined in section 2001 of the MVICSA and as amended by the AMFA includes passenger automobiles and light trucks) on a favorable basis, beginning with model year 1993, to provide incentives to manufacture such automobiles. The AMFA directs EPA to include in the CAFE calculation automobiles fueled exclusively by alcohol (alcohol-fueled automobiles),<sup>1</sup> and automobiles fueled exclusively by natural gas (natural gas-fueled automobiles),<sup>2</sup> and automobiles that can operate on either gasoline or diesel fuel, as well as either alcohol (alcohol dual fuel automobiles)<sup>3</sup> or natural gas (natural gas dual fuel automobiles)<sup>4</sup> or a combination of gasoline or diesel fuel and alcohol or natural gas (section 2013(e)). The term alcohol is defined in 15 U.S.C. 2013(h)(1) as "a mixture containing 85 percent or more by volume methanol, ethanol, or other alcohols, in any combination."

The statute also requires that alcohol dual fuel automobiles and natural gas dual fuel automobiles are to provide equal or superior energy efficiency while operating on the alternative fuel as when operating on gasoline or diesel fuel (section 2013(h)(1)(C)(ii) and (D)(ii)). With respect to alcohol dual fuel automobiles, the AMFA further provides that such automobiles manufactured in model years 1993 through 1995 (or for a longer period if extended by the Administrator) are to achieve energy efficiency when they are operated on a mixture of 50 percent alcohol and 50 percent gasoline or diesel fuel equal to or superior to that achieved when they are operated exclusively on gasoline or diesel fuel (section 2013(h)(1)(C)(iii)). One further requirement established by the AMFA for alcohol dual fuel automobiles and natural gas dual fuel automobiles which are also passenger automobiles is that they comply with minimum driving range requirements established by the Secretary of Transportation (section 2013(h)(1)(C)(iv) and (D)(iii)). These ranges were established by the National Highway Traffic Safety Administration (NHTSA) in the Federal Register on April 26, 1990 (55 FR 17611). The minimum driving range for alcohol dual fuel vehicles is

<sup>1</sup> Referred to in the AMFA as "alcohol powered automobiles."

<sup>2</sup> Referred to in the AMFA as "natural gas powered automobiles."

<sup>3</sup> Referred to in the AMFA as "dual energy automobiles."

<sup>4</sup> Referred to in the AMFA as "natural gas dual energy automobiles."



200 miles and the range for natural gas dual fuel vehicles is 100 miles.

The CAFE calculation is to include automobiles manufactured after model year 1992 that operate exclusively on alcohol or natural gas, and dual fuel automobiles manufactured in model years 1993 through 2004. (The period during which dual fuel automobiles are to be included in the CAFE calculation may be extended through model year 2008 by the Secretary of Transportation.) (section 2013(f)).

The basis on which alternative-fueled automobiles are to be included in the CAFE calculation under the AMFA is favorable and is intended to encourage manufacturers to produce such automobiles. With respect to alcohol-fueled automobiles, the AMFA provides that the CAFE calculation is to be based on the gasoline or diesel content of the mixture, which is deemed to be 15 percent. For example, an alcohol-fueled automobile which has a measured fuel economy of 18 mpg while operating on alcohol would receive a rating of 120 mpg (18/0.15) for CAFE purposes. It must be noted that the 0.15 divisor is a fixed number (i.e., it is not proportional to the actual gasoline or diesel content of the blend). With respect to natural gas-fueled automobiles, the AMFA provides that 100 cubic feet of natural gas shall be considered to contain 0.823 gallon equivalent of natural gas and that the CAFE calculation is to be based on the assumption that a gallon equivalent of natural gas has a petroleum fuel content of 15 percent. For dual fuel automobiles, the fuel economy for CAFE purposes is to reflect the assumption that the automobiles are operated half of the time on gasoline or diesel fuel and half of the time on the alternative fuel and the two measured fuel economies are harmonically averaged (section 2013(a)-(d)).

The AMFA also limits the maximum increase in a manufacturer's average fuel economy attributable to dual fuel automobiles to 1.2 mpg for model years 1993 through 2004 and, if extended by the Secretary of Transportation, to 0.9 mpg for model years 2005 through 2008 for each compliance category of automobiles (i.e., domestic passenger, import passenger, domestic light truck, and import light truck). Furthermore, if the Secretary of Transportation reduces the average fuel economy standard applicable to passenger automobiles to less than 27.5 mpg for any model year, increases in the manufacturer's fuel economy attributable to dual fuel passenger automobiles above 0.7 mpg are to be reduced by the amount the standard was lowered, but may not be

reduced to less than 0.7 mpg (section 2013(g)).

The AMFA also amends the fuel economy labeling provisions of section 506 of the MVCSA to require that specific fuel economy information for dedicated alternative-fueled automobiles and dual fuel automobiles appear on the label and in the Gas Mileage Guide published by the Department of Energy (15 U.S.C. 2006(a)(4) and (b)(5)).

For alcohol-fueled automobiles or natural gas-fueled automobiles, the AMFA states that the fuel economy for labeling purposes shall be the fuel economy value calculated for CAFE purposes multiplied by the value, 0.15.

In the case of alcohol dual fuel automobiles or natural gas dual fuel automobiles, the AMFA states that each label must: (i) Indicate the fuel economy of such automobiles when operated on gasoline or diesel fuel; (ii) clearly identify such automobiles as alcohol dual fuel or natural gas dual fuel automobiles, as the case may be; (iii) clearly identify the fuels on which such automobiles may be operated; and (iv) contain a statement informing the consumer that the additional information is contained in the booklet published and distributed by the Department of Energy.

A more detailed discussion of the requirements of the AMFA can be found in a memo entitled CAFE Incentives and Fuel Economy Labeling Requirements of the Alternative Motor Fuels Act of 1988 to the docket (no. A-89-24) of this NPRM.

## II. Discussion of Proposal

As described in the introduction, the AMFA specifies the amount of CAFE credits obtainable by particular vehicle types; the proposed regulatory language implements these provisions. Test procedures and other issues not specified in the AMFA are addressed below.

### A. Options Considered to Include Methanol, Ethanol, and Natural Gas in the Fuel Economy Regulations

Section 503 of the MVCSA requires, to the extent practicable, that fuel economy tests be conducted in conjunction with emission tests conducted under section 206 of the Clean Air Act (42 U.S.C. 7525). Accordingly, the current certification test procedures of the Federal Motor Vehicle Control Program (FMVCP) for gasoline or diesel-fueled automobiles are also those used for fuel economy testing. The current fuel economy program regulations specify that only automobiles meeting Federal emission

standards can generate acceptable fuel economy data.

On April 11, 1989, the EPA published a final rulemaking in the Federal Register (54 FR 14426) which established emission standards and test procedures for methanol-fueled automobiles. However, this regulation did not include test, measurement, or calculation procedures for fuel economy of methanol-fueled automobiles as no fuel equivalency factor (the amount of an alternative fuel which is equivalent to a gallon of gasoline) for methanol was available.

The AMFA now provides the fuel equivalency factor for methanol for CAFE purposes and specifies the steps to include methanol-fueled automobiles in the CAFE program. It is thus a straightforward matter for EPA to propose specific fuel economy test, measurement, and calculation procedures for methanol-fueled automobiles consistent with the fuel economy program requirements placed on gasoline-fueled and diesel-fueled automobiles, since emission standards and test procedures have been promulgated and a fuel equivalency factor for CAFE purposes has been established.

Less straightforward is how to deal with automobiles fueled with natural gas and ethanol with regard to the new fuel economy provisions of the AMFA. The AMFA provides fuel equivalency factors for ethanol and natural gas for CAFE purposes. However, no emission standards or test procedures have been promulgated for ethanol-fueled or natural gas-fueled automobiles.

A threshold issue is whether fuel economy data vehicles must be subject to emission standards. As noted above, the current regulations require that fuel economy data vehicles be covered by a certificate of conformity with emission standards (§ 600.007-80(f)). Since a certificate may be obtained only by demonstrating compliance with emission standards, the regulations indirectly require that fuel economy data vehicles be subject to emission standards.

The requirement that fuel economy data vehicles be covered by a certificate was promulgated when the only vehicles included in the fuel economy calculation were gasoline- and diesel-fueled vehicles. These vehicles were and are subject to emission standards as well. One reason to require that fuel economy data vehicles also meet emission standards is to ensure that such vehicles be representative of vehicles found in use.



Obviously, this rationale for requiring fuel economy data vehicles to meet emission standards does not apply where vehicles are not subject to emission standards. On the other hand, an advantage of setting emission standards and test procedures for alternative-fueled vehicles which are included in the CAFE program is to remove the possibility that the absence of such standards could obstruct the development of such vehicles. Moreover, in the process of setting standards for other types of fuels, EPA would develop test procedures that would serve as fuel economy test procedures as well.

One option considered by EPA was to only include the fuel economy provisions for methanol-fueled vehicles in 40 CFR Part 600 since emission standards are in place for methanol-fueled vehicles. Inclusion of the provisions for automobiles fueled with ethanol and natural gas would be postponed until emission standards and test procedures for these automobiles are developed. However, delaying adopting fuel economy procedures for these alternative fuel automobiles might tend to undermine the AMFA's intent to encourage the use of alternative fuels on a fuel neutral basis. Also, the AMFA requires EPA to calculate CAFE subject to the requirements therein, beginning with model year 1993. Therefore, any delays to including the CAFE credit mechanism for alternative-fueled automobiles manufactured after model year 1992 could undermine AMFA requirements. Further, there seems no benefit in delaying adopting general fuel economy calculation procedures for automobiles fueled with ethanol or natural gas. Therefore, EPA is not proposing this option.

A second option considered was to develop emission standards and test procedures for natural gas-fueled automobiles and ethanol-fueled automobiles and include these emission standards and test procedures along with the fuel economy provisions for automobiles fueled with these fuels and the provisions for methanol-fueled automobiles in one package. However, due to the greater number of issues that would have to be resolved, this approach would delay the inclusion of alternative fuels in the CAFE program and the accompanying potential incentive for the development of automobiles fueled by methanol, ethanol, and natural gas. It is outside the scope of this rulemaking to establish emission standards and emission test and measurement procedures for natural gas and ethanol-fueled automobiles. For

these reasons, EPA is not proposing this option.

A third option is the one EPA is today proposing to implement. This option is to establish the fuel economy incentive mechanism (credit calculation procedures) for methanol, ethanol, and natural gas-fueled automobiles in the regulations. In addition, since emission standards and emission measurement procedures have already been developed for methanol-fueled automobiles, fuel economy measurement procedures are also proposed for methanol-fueled automobiles. However, before manufacturers will be able to receive CAFE credits for automobiles fueled with natural gas or ethanol, fuel economy measurement procedures or provisions need to be established covering these alternative fuels. In addition, to maintain a level playing field for the different types of fuels, emission standards for natural gas-fueled and ethanol-fueled vehicles should be set.

EPA has begun work on a separate rulemaking to develop emission standards and test procedures for automobiles fueled with natural gas. This separate rulemaking will address the natural gas-fueled automobile emission and fuel economy measurement procedures necessary to determine the fuel economy values to which the CAFE credit mechanism (proposed in this NPRM) is applied. EPA expects to complete this rulemaking before the start of the 1992 model year, in time for manufacturers to include any 1993 model year natural gas-fueled automobiles in the fuel economy program.

As for ethanol-fueled automobiles, EPA is not in a position to develop emission standards and test procedures for such automobiles at this time. The Agency is unaware of any plans by any manufacturer to develop ethanol-fueled automobiles for sale in the U.S. (Ethanol-fueled vehicles currently are used in Brazil and other countries, but those vehicles are not subject to emission controls similar to those required in the United States. The vehicles thus provide little insight into what emission control ethanol vehicles could achieve.) With no ethanol automobiles under development for this market, EPA has little or no basis for determining emission standards and test procedures for such automobiles at this time. When any manufacturer develops an ethanol-fueled automobile for sale in the United States, the Agency will conduct a rulemaking to establish test procedures and, if time allows, emission standards. The manufacturer may then

include such automobiles in its fuel economy calculation beginning with the 1993 model year or, if later, the model year in which the automobiles are introduced. Since EPA cannot be sure that it will have emission standards in place for all types of alternative fuel vehicles by the time they are included in CAFE calculation, EPA here proposes to revise the requirement that fuel economy data vehicles be covered by a certificate demonstrating compliance with emission standards so that it applies only where the vehicles are subject to emission standards.

The Energy Policy and Conservation Act (EPCA) requires that fuel economy measurement and calculation procedures be established by rule (15 U.S.C. 2003(d)(3)) not less than 12 months prior to the model year to which such procedures apply. Therefore, to ensure timely promulgation of such procedures and avoid delaying the receipt of CAFE credits, manufacturers should inform EPA as far in advance as possible of any plans to market alternative-fueled vehicles other than methanol-fueled vehicles. EPA solicits comment on how the Agency could expedite the promulgation of fuel economy test procedures for these other alternative-fueled vehicles if the need arises.

For example, under a direct final rulemaking, the Administrative Procedures Act (APA), which governs rulemakings under EPCA, allows the Agency to promulgate regulations without prior notice and comment if it has "good cause" to do so. The APA provides that good cause exists when notice and public comment are "impracticable, unnecessary, or contrary to the public interest" (5 U.S.C. 553(b)(3)). Courts have construed the "good cause" exception narrowly. EPA solicits comment on whether the Agency would have good cause to dispense with prior notice and comment if necessary to promulgate test procedures in time for manufacturers to obtain credits for vehicles designed to run on alternative fuels not already covered by established test procedures. The Agency is also interested in any other suggestions regarding how test procedures for such vehicles could be promulgated on a timely basis.

The Agency seeks comments on whether there are any alternative fuels, including other liquid or gaseous fuel, under consideration by the automotive industry for future use in addition to those addressed by the Alternative Motor Fuels Act (i.e., alcohol and natural gas) the inclusion of which in the CAFE program would be consistent with



the need of the nation to conserve energy, as discussed in section 501(5) of the MVCSA.

#### B. Fuel Economy Calculations for Methanol Automobiles

The general equation used by EPA to calculate fuel economy is:

$$\text{miles/gallon} = (\text{grams carbon/gallon fuel}) / (\text{grams carbon/mile})$$

The current method of calculating fuel economy for gasoline and diesel-fueled automobiles is based on this equation, but it can be applied to any carbon-based fuel. The equation is based on the carbon balance technique which relies on the premise that the quantity of carbon contained in the exhaust is equal to the quantity of carbon consumed by the engine as fuel.

The major carbon-containing compounds found in the exhaust of automobiles fueled with methanol are carbon dioxide ( $\text{CO}_2$ ), carbon monoxide ( $\text{CO}$ ), methanol ( $\text{CH}_3\text{OH}$ ), formaldehyde ( $\text{HCHO}$ ), and hydrocarbons ( $\text{HC}$ ). These are proposed to be included in the denominator of the basic equation to account for the carbon in the exhaust. For methanol/gasoline blends, EPA proposes the following equation for calculating fuel economy:

$$\text{mpg} = N/D$$

Where:

$$N = [(0.866)(2796)(G) + (0.375)(2994)(M)] = \text{grams carbon/gallon fuel}$$

$$D = [(CWF_{\text{HC}} \times \text{HC}) + (0.429 \times \text{CO}) + (0.273 \times \text{CO}_2) + (0.375 \times \text{CH}_3\text{OH}) + (0.400 \times \text{HCHO})] = \text{grams carbon in exhaust/mile}$$

Where:

0.866 = carbon weight fraction of gasoline

0.375 = carbon weight fraction of methanol

2796 = density of gasoline [grams/gallon]

2994 = density of methanol [grams/gallon]

G = gasoline volume fraction (percent/100)

M = methanol volume fraction (percent/100)

HC, CO,  $\text{CO}_2$ ,  $\text{CH}_3\text{OH}$ , and HCHO are the

weighted mass emissions [grams/mile]

as calculated in 40 CFR 86.144.

$CWF_{\text{HC}}$ , 0.429, 0.273, 0.375, and 0.400 = carbon weight fractions of the respective exhaust constituent compounds.

The term,  $CWF_{\text{HC}}$ , in the denominator is the carbon weight fraction of the hydrocarbon constituent in the exhaust. EPA considered two options for determining which value(s) should be used for the  $CWF_{\text{HC}}$  term:

#### Option 1

Since the proposed fuel economy equation is applicable to different gasoline/methanol blends, the carbon weight fraction of the exhaust hydrocarbon constituent will vary depending on the fuel blend (e.g., percentage of methane relative to total exhaust hydrocarbons will increase with

increasing methanol content of the fuel). EPA has obtained limited data on the hydrogen to carbon ratio (H/C) of exhaust hydrocarbons from vehicles operating on M85 and M100<sup>\*</sup>. The average H/C for total exhaust hydrocarbons of vehicles operating on M85 was 2.26 ( $CWF_{\text{HC}}=0.840$ ) and that for M100 was 3.23 ( $CWF_{\text{HC}}=0.787$ ) for the vehicles tested by EPA (FTP cycle at 75 °F). One option considered by EPA is to use these values for the  $CWF_{\text{HC}}$  term for the respective gasoline/methanol blend. Although the AMFA defines alcohol fuel as containing at least 85 percent (by volume) alcohol, EPA expects the most prevalent fuels to be M85 and M100. However, should fuel blends containing greater than 85 and less than 100 percent methanol be used for methanol-fueled automobiles, the carbon weight fraction could be determined by the linear interpolation of the carbon weight fractions used for the exhaust hydrocarbons from vehicles operating on M85 and M100.

With one exception, for fuel economy purposes, the proposed carbon balance equation for methanol-fueled automobiles does not apply to blends which contain less than 85 percent methanol (by volume). The AMFA requires that alcohol dual fuel automobiles that are capable of operating on a range of mixtures of gasoline and methanol must provide equal or superior energy efficiency while operating on a 50 percent (by volume) alcohol and 50 percent gasoline fuel mixture as while operating on a 100 percent gasoline fuel. Although no data were obtained by EPA for M50, EPA expects the carbon weight fraction of exhaust hydrocarbons from vehicles operating on M50 to be between the carbon weight fraction for gasoline (i.e., 0.866) and the carbon weight fraction for M85 (i.e., 0.840) exhaust hydrocarbons. For M50, under this option, EPA considered using the value of 0.853 which is the average of the gasoline and M85 carbon weight fractions.

Due to the added complexity in accounting for the different carbon weight fractions and their likely negligible impact on measured fuel economy, EPA does not favor Option 1, preferring instead Option 2 explained below.

#### Option 2

A second option considered by EPA assumes a fixed carbon weight fraction

of 0.866 ( $\text{H/C}=1.85$ ) for the exhaust hydrocarbon constituents regardless of fuel blend. This option eliminates the complexity of determining and using individual values for each fuel blend. Also, the contribution to the total grams carbon per mile of the exhaust hydrocarbon term in the fuel economy equation is expected to be very small relative to the carbon dioxide term and therefore expected to have a very limited effect on fuel economy. For this reason small differences in the exhaust hydrocarbon carbon weight fraction due to combustion of different fuel blends will have a negligible effect on the fuel economy determination and a single constant carbon weight fraction could be used for any methanol/gasoline blend. In addition, this option is consistent with the 40 CFR part 86 emission measurement procedures which assume a H/C of 1.85 for the exhaust hydrocarbon constituent of gasoline/methanol blends. For the reasons stated above, EPA is proposing the fixed carbon weight fraction value of 0.866 for the exhaust hydrocarbon constituent of vehicles operating on gasoline/methanol blends.

This equation is proposed not to apply to automobiles fueled with 100 percent gasoline (i.e., methanol volume percentage equal to zero). The equation established in 40 CFR 600.113(e) will continue to be used to determine the fuel economy of automobiles fueled with gasoline.

The proposed equation is based on fixed fuel property values (carbon weight fraction and density) for methanol and gasoline. EPA will evaluate the need to use measured fuel properties (i.e., measured for each fuel economy test or periodically for each batch of fuel) of methanol fuels and methanol/gasoline blends as experience is gained with the use of these fuels. Blends containing a high percentage of methanol may or may not display fuel property variations significant enough to warrant the use of measured fuel properties in the fuel economy calculations. Therefore, at least for the near term, EPA is not proposing the use of measured fuel properties for calculating the fuel economy of automobiles fueled with methanol or methanol/gasoline blends. EPA is soliciting comments on the proposed method for calculating fuel economy for methanol-fueled automobiles. In particular, EPA requests comment on the appropriateness of using fixed fuel properties in place of measured fuel properties. EPA also is soliciting comments on the appropriate carbon weight fractions and densities of

\* The data is available for review in EPA Docket No. A-89-24 under the title, "H/C Ratio From M-85 and M-100 Vehicles" and originated from the Atmospheric Research & Exposure Laboratory of EPA.



methanol fuel and gasoline used for blending to use in calculating fuel economy of automobiles operating on these fuels.

### C. Alternative Procedure Option

The regulations for emission testing of methanol-fueled automobiles (54 FR 14427) established emission standards for organics intended to control carbon-based organics from methanol-fueled automobile emissions to a level equivalent to that allowed from petroleum-fueled automobiles under their respective hydrocarbon standards. The primary organic emissions from methanol-fueled automobiles are methanol, formaldehyde, and hydrocarbons. These are required to be measured separately to determine compliance with the carbon-based organic standard and are also proposed to be required for fuel economy calculations. However, to reduce testing costs and complexity and provide manufacturers with more flexibility during development of methanol-fueled automobiles, EPA is providing an interim alternative method (54 FR 14430) for determining organic emissions and fuel economy for methanol-fueled automobiles. The method, which is applicable through 1994, employs the use of a flame ionization detector (FID) calibrated on methanol to perform a single measurement of hydrocarbons and oxygenated organics. This alternative method would accurately measure methanol but would overmeasure hydrocarbons. Formaldehyde, which generally comprises only about five percent of the total organic emissions from methanol-fueled vehicles, would remain virtually undetected. However, the anticipated net effect is that carbon in the exhaust would be reported high because the method's overmeasure of hydrocarbon is expected to be greater than the undermeasure of formaldehyde. As a result, fuel economy would be slightly lower with this optional procedure since the carbon measured by the FID would be assumed to have a hydrocarbon origin for fuel economy calculation purposes. If this procedure is adopted for fuel economy purposes, it would be applicable during model years 1993 and 1994. EPA is requesting comments on the desirability of this optional method for calculating fuel economy.

### D. Energy Efficiency of Dual Fuel Automobiles

The AMFA requires that alcohol dual fuel automobiles and natural gas dual fuel automobiles provide equal or superior energy efficiency while operating on natural gas or alcohol, as

the case may be, as while operating on gasoline or diesel fuel. In addition, since a range of mixtures of alcohol and gasoline fuel can be used to operate alcohol dual fuel automobiles (also referred to as flexible fuel automobiles), these automobiles must provide equal or superior energy efficiency on a 50 percent (by volume) alcohol and 50 percent gasoline fuel mixture, as on a 100 percent gasoline fuel. The AMFA specifies that these energy efficiency determinations are to be made during fuel economy testing for the Federal Government.

EPA is proposing the method described below for the determination of equal or superior energy efficiency. For an automobile to be eligible for the CAFE credit for dual fuel automobiles, the following relation must hold true for both the city and highway fuel economy values for each test of each dual fuel automobile tested for fuel economy purposes:

$$E_{alt}/E_{pet} > 1$$

where:

$E_{alt}$  =  $[FE_{alt}/(NHV_{alt} \times D_{alt})] \times 10^6$  = energy efficiency while operating on alternative fuel [miles/million BTU].

$E_{pet}$  =  $[FE_{pet}/(NHV_{pet} \times D_{pet})] \times 10^6$  = energy efficiency while operating on gasoline or diesel (petroleum) fuel [miles/million BTU].

$FE_{alt}$  is the fuel economy [miles/gallon for liquid fuels or miles/100 cubic feet for gaseous fuels] while operating on the alternative fuel;

$FE_{pet}$  is the fuel economy [miles/gallon] while operating on gasoline or diesel (petroleum) fuel;

$NHV_{alt}$  is the net (lower) heating value [BTU/lb] of the alternative fuel;

$NHV_{pet}$  is the net (lower) heating value [BTU/lb] of gasoline or diesel fuel;

$D_{alt}$  is the density [lb/gallon for liquid fuels or lb/100 cubic feet for gaseous fuels] of the alternative fuel;

$D_{pet}$  is the density [lb/gallon] of gasoline or diesel fuel.

The AMFA also requires that 1993 through 1995 model year alcohol dual fuel automobiles provide equal or superior energy efficiency while operating on a blend of 50 percent alcohol and 50 percent gasoline (by volume), as while operating on gasoline or diesel fuel. The statute provides EPA with the authority to extend this requirement until model year 2004, or 2008, at the latest. To implement this requirement, EPA is proposing that manufacturers perform city and highway fuel economy tests using a 50 percent alcohol, 50 percent gasoline (by volume) mixture for each test automobile used for fuel economy purposes. EPA is proposing the relation described above must then also hold true for each test of each automobile when the fuel economy

and fuel property values for this mixture are substituted into the 'alt' subscripted terms of the energy efficiency equations. This 50 percent alcohol, 50 percent gasoline testing requirement would be applicable for model years 1993 through 1995. If the Administrator of the Environmental Protection Agency determines that an extension of the requirement is warranted, an extension will be pursued in a separate rulemaking.

Under this proposal, manufacturers would be required to determine the net heating values and densities of the alternative fuel, petroleum fuel, and a 50 percent alcohol, 50 percent gasoline mixture to be used in the above relation. Manufacturers would also be responsible for showing that the test fuels used are representative of commercially available fuels. Upon reviewing the net heating values and densities submitted by the manufacturer, the Administrator shall determine the net heating values and densities to be used. The net heating values and densities of gasoline are to be determined in accordance with 40 CFR 600.113 paragraph (c).

Use of the net (lower) heating value is proposed rather than the higher heating value since the water formed by combustion is in the vapor state. EPA is soliciting comment on the appropriateness of the use of the net heating value. EPA also requests comment on the proposed procedure to meet the AMFA requirements for dual fuel automobile energy efficiency.

### E. Fuel Economy Label Format Requirements—Alcohol-Fueled and Natural Gas-Fueled Automobiles

Currently the fuel economy label format is specified for gasoline-fueled and diesel-fueled automobiles. To fulfill the labeling requirements of section 8 of the AMFA (15 U.S.C. 2006(a)), EPA is proposing to use this format for fuel economy labeling of alcohol-fueled or natural gas-fueled automobiles with minor modification. To help avoid consumer confusion while comparison shopping, the label should clearly indicate the type of fuel the automobile operates on. EPA is proposing that a fuel title (example: "Natural Gas") be positioned above the fuel pump logo on the fuel economy label. EPA is also proposing that a statement: "This vehicle operates on (insert appropriate fuel(s)) only." be included on the label of 1993 and later model year vehicles. The proposed location of this statement is that it appear on the bottom border of the label.



The AMFA requires that, in the case of alcohol-fueled and natural gas-fueled automobiles, the fuel economy for labeling purposes shall be the product of the fuel economy value calculated for CAFE purposes and the value, 0.15. Therefore, the city and highway fuel economy values to appear on the fuel economy label for alcohol-fueled automobiles are in terms of miles traveled per gallon of alcohol fuel consumed. For natural gas-fueled automobiles, the fuel economy label values determined in this way would be in terms of miles traveled per equivalent gallon of gasoline consumed, where 100 ft<sup>3</sup> of natural gas is designated as 0.823 gallons equivalent of natural gas. However, consumers considering the purchase of natural gas-fueled automobiles are also interested in driving range and cost to operate the automobile. Therefore, also expressing natural gas-fueled automobile fuel economy in miles traveled per actual volume of fuel consumed may be desirable. For this reason, EPA is proposing that the fuel economy labels for natural gas-fueled vehicles include the statement, "All fuel economy values on this label pertain to gasoline equivalent fuel economy. To convert these values into units of miles per 100 cubic feet of natural gas, multiply by 0.823."

For labeling purposes, the 0.9 and 0.78 multiplicative factors for adjusting the city and highway fuel economy values to better represent in-use fuel economy are proposed to apply to alcohol-fueled automobiles, natural gas-fueled automobiles, and dual fuel automobiles. Since these factors were developed to account for differences in travel environment, owner travel and driving habits, and vehicle maintenance, they are presumed to be reasonable for any fuel type.

#### *F. Fuel Economy Label Format Requirements—Alcohol Dual Fuel and Natural Gas Dual Fuel Automobiles*

To fulfill the labeling requirements of section 8 of the AMFA for alcohol dual fuel vehicles and natural gas dual fuel automobiles, EPA is proposing the following modifications and additions to the existing label requirements. The label must clearly identify the automobile as a dual fuel vehicle and list the fuels on which it can be operated. EPA is proposing that the title "Dual Fuel" be positioned above the fuel pump logo on the fuel economy label. EPA is also proposing that the statement, "This dual fuel vehicle operates on (gasoline or diesel) or (list alcohols or natural gas)" appear on the bottom border of the label. Also

proposed to appear on the label is, "All fuel economy values on this label pertain to (gasoline or diesel) fuel usage. (List alcohols or natural gas) fuel usage will yield different values. See the Gas Mileage Guide for information on (list alcohols or natural gas) fuel(s) usage." The proposed location for these statements is illustrated in the sample label of Appendix VIII of the proposed regulations.

#### *G. Gas Guzzler Tax*

Section 201 of the Energy Tax Act of 1978, 26 U.S.C. 4064 *et. seq.*, authorizes the Secretary of the Treasury (after consultation with the Secretary of Transportation) to include in the gas guzzler tax program automobiles fueled with any product of petroleum or natural gas, if such inclusion is consistent with the need of the nation to conserve energy. Consequently, the alternative fuels covered by the AMFA could conceivably be included in the gas guzzler tax program even though the program is presently limited to vehicles powered by gasoline or diesel fuel. The Energy Tax Act of 1978 gives EPA the responsibility for determining the amount of an alternative fuel that is equivalent to a gallon of gasoline, which is the fuel equivalency factor. The resulting gasoline-equivalent fuel economy of automobiles operating exclusively on alternative energy sources would then be used for purposes of the gas guzzler tax program.

As yet, however, the Department of the Treasury has not decided whether to include methanol, ethanol, or natural gas in the gas guzzler tax program. It would therefore be premature for EPA to establish a fuel equivalency factor for methanol, ethanol, or natural gas for purposes of the gas guzzler tax program. If and when methanol, ethanol, or natural gas are included in the gas guzzler tax program, EPA will initiate action to establish fuel equivalency factors for gas guzzler tax program purposes for those fuels.

The Department of Treasury has not decided how dual fuel automobiles should be treated for purposes of the gas guzzler tax program. Comments are requested regarding whether alternative-fueled automobiles or dual fuel automobiles should be included in the gas guzzler tax program.

#### **III. Technical Amendments**

To save the time and printing costs involved in publishing them under a separate notice, the following technical amendments to the test procedures for methanol vehicles are also included in this NPRM:

A. A formaldehyde concentration term is being added to the dilution factor equation located in 40 CFR 86.144-90(c)(7)(ii). Although the magnitude of the formaldehyde concentration is very low, it is possible that an assumption of zero concentration could lead to a slight change in calculated fuel economy. There is no reason why the formaldehyde concentration term should be left out of the equation. With this amendment, all measured carbon-containing compounds will be included in the dilution factor equation.

B. The symbol "x" is struck from the dilution factor equation of 40 CFR 86.144-90(c)(7)(ii) the first time it appears in the equation. As currently written, the symbol "x" has two meanings. The first time "x" appears in the equation it is used to represent multiplication. All other occurrences of "x" in the equation represent the measured fuel composition parameter: C<sub>x</sub>H<sub>y</sub>O<sub>z</sub>. By dropping the first occurrence of "x", only the latter meaning is retained. The multiplication function can be assumed by virtue of a number adjacent to a variable enclosed in parenthesis.

#### **IV. Reporting and Recordkeeping Requirements**

This proposed regulation essentially requires no new reporting or recordkeeping requirements for manufacturers currently included under the provisions of 40 CFR part 86 or 40 CFR part 600. This proposed regulation requires slight changes in fuel economy label wording for alternative-fueled automobiles.

#### **V. Administrative Designation and Economic Impact**

Under Executive Order 12291, EPA must judge whether a rule it intends to propose or to issue is a major rule and prepare a Regulatory Impact Analysis (RIA) for all major rules. EPA has determined that this proposed rule is not a "major rule" since it meets none of the conditions for a major regulation. This proposed rule is classified as "minor" since it may result in cost benefits to the automobile industry through CAFE credits and should result in no increase in costs or prices for consumers, individual industries, Federal, State, or local government agencies, or geographic regions.

#### **VI. Regulatory Flexibility Act**

The Regulatory Flexibility Act of 1980 requires Federal agencies to identify potentially adverse impacts of proposed Federal regulations upon small entities. In instances where significant impacts



are possible on a substantial number of these entities, agencies are required to perform a preliminary Regulatory Flexibility Analysis (RFA). EPA has determined that proposed fuel economy regulation revisions herein will not have a significant impact on a substantial number of small entities.

#### List of Subjects

##### 40 CFR Part 86

Administrative practice and procedures, Air pollution control, Gasoline, Motor vehicles, Labeling, Motor vehicle pollution, Reporting and recordkeeping requirements.

##### 40 CFR Part 600

Electric power, Energy conservation, Gasoline, Labeling, Administrative practice and procedure, Fuel economy.

Authority: 15 U.S.C. 2001, 2002, 2003, 2006, 2013; 42 U.S.C. 7521, 7522, 7524, 7525, 7541, 7601(a).

Dated: February 14, 1991.

William K. Reilly,  
Administrator.

TABLE OF CHANGES MADE TO VARIOUS SUBPARTS

Section	Change	Reason
1. Part 86, Authority.....		None
2. § 86.144-90, (c)(7)(ii).....	Addition of formaldehyde concentration term to DF equation and clarification of "x" term.	Technical amendments.
3. Part 600, Authority.....	Addition of citations.....	Incorporate all authority citations.
4. Table of Contents.....	Addition of 1993 MY sections.....	Incorporation of alcohol-fueled, natural gas-fueled, and alcohol dual fuel, and natural gas dual fuel vehicles into the regulations.
5. § 600.001-93.....	Addition of section 600.001-93.....	Do.
6. § 600.002-93.....	Addition of section 600.002-93.....	Do.
7. § 600.007-80, (f).....	Add words "and for which emission standards apply".....	Add language to clarify requirements for vehicle acceptability.
8. § 600.101-93.....	Addition of section 600.101-93.....	Do.
9. § 600.107-93.....	Addition of section 600.107-93.....	Do.
10. § 600.111-93.....	Addition of section 600.111-93.....	Do.
11. § 600.113-93.....	Addition of section 600.113-93.....	Add fuel economy equation for methanol-fueled and methanol dual fuel vehicles.
12. § 600.201-93.....	Addition of section 600.201-93.....	Incorporation of alcohol-fueled, natural gas-fueled, alcohol dual fuel, and natural gas dual fuel vehicles into the regulations.
13. § 600.206-93.....	Addition of section 600.206-93.....	Do.
14. § 600.207-93.....	Addition of section 600.207-93.....	Do.
15. § 600.209-93.....	Addition of section 600.209-93.....	Do.
16. § 600.301-93.....	Addition of section 600.301-93.....	Do.
17. § 600.307-93.....	Addition of section 600.307-93.....	Do.
18. § 600.501-93.....	Addition of section 600.501-93.....	Do.
19. § 600.510-93.....	Addition of section 600.510-93.....	Do.
20. Appendix VIII.....	Addition of sample labels.....	Do.

For the reasons set forth in the preamble, EPA proposes to amend 40 CFR part 86 and part 600 as follows:

#### PART 86—CONTROL OF AIR POLLUTION FROM NEW MOTOR VEHICLES AND NEW MOTOR VEHICLE ENGINES: CERTIFICATION AND TEST PROCEDURES

1. The authority citation for part 86 continues to read as follows:

Authority: Secs. 202, 203, 206, 207, 208, 215, 301(a), of the Clean Air Act as Amended; 42 U.S.C. 7521, 7522, 7524, 7525, 7541, 7542, 7549, 7550, and 7601(a).

2. Section 86.144-90 is amended by revising paragraph (c)(7)(ii) to read as follows:

§ 86.144-90 Calculations; exhaust emissions.

\* \* \* \* \*

(c) \* \* \*

(7) \* \* \*

(ii)  $DF = 100(x/(x + y/2 + 3.78(x + y/4 - z/2)))/(CO_2 + (HC + CO_2 + C_{CH_3OH} + C_{CH_3OCH_3})10^{-9})$

For methanol-fueled vehicles where fuel composition is  $C_2H_5O_2$  as measured for the fuel used.

\* \* \* \* \*

#### PART 600—FUEL ECONOMY REGULATIONS FOR 1977 AND LATER MODEL YEAR AUTOMOBILES—GENERAL PROVISIONS

For the reasons set forth in the preamble, EPA proposes to amend 40 CFR part 600 as follows:

3. The authority citation for part 600 is revised to read as follows:

Authority: Title III of the Energy Policy and Conservation Act of 1975, Pub. L. 94-163, 89 Stat. 871; title IV of the National Energy Conservation Policy Act of 1978, Pub. L. 95-619, 92 Stat. 3206; Alternative Motor Fuels Act of 1988, Pub. L. 100-494, 102 Stat. 2452.

4-5. A new § 600.001-93 is added to subpart A as follows:

##### § 600.001-93 General applicability.

(a) The provisions of this subpart are applicable to 1993 and later model year gasoline-fueled, diesel-fueled, alcohol-fueled, natural gas-fueled, alcohol dual

fuel, and natural gas dual fuel automobiles.

(b)(1) Manufacturers that produce only electric vehicles are exempt from the requirement of this subpart, except with regard to the requirements in those sections pertaining specifically to electric vehicles.

(2) Manufacturers with worldwide production (excluding electric vehicle production) of less than 10,000 gasoline-fueled and/or diesel powered passenger automobiles and light trucks may optionally comply with the electric vehicle requirements in this subpart.

6. A new § 600.002-93 is added to subpart A as follows:

##### § 600.002-93 Definitions.

(a) As used in this subpart, all terms are defined herein shall have the meaning given them in the Act.

(1) Act means part I of title V of the Motor Vehicle Information and Cost Savings Act (15 U.S.C. 1901 et seq.).

(2) Administrator means the Administrator of the Environmental



Protection Agency or his authorized representative.

(3) *Secretary* means the Secretary of Transportation or his authorized representative.

(4) *Automobile* means:

(i) Any four-wheel vehicle propelled by a combustion engine using onboard fuel, or by an electric motor drawing current from rechargeable storage batteries or other portable energy storage devices (rechargeable using energy from a source off the vehicle such as residential electric service),

(ii) Which is manufactured primarily for use on public streets, roads, or highways (except any vehicle operated on a rail or rails)

(iii) Which is rated at not more than 8,500 pounds gross vehicle weight, which has a curb weight of not more than 6,000 pounds, and which has a basic vehicle frontal area of not more than 45 square feet, or

(iv) Is a type of vehicle which the Secretary determines is substantially used for the same purposes.

(5) "Passenger Automobile" means any automobile which the Secretary determines is manufactured primarily for use in the transportation of no more than 10 individuals.

(6) *Model Year* means the manufacturer's annual production period (as determined by the Administrator) which includes January 1 of such calendar year. If a manufacturer has no annual production period, the term "model year" means the calendar year.

(7) *Federal Emission Test Procedure* refers to the dynamometer driving schedule, dynamometer procedure, and sampling and analytical procedures described in part 86 for the respective model year, which are used to derive city fuel economy data.

(8) *Federal Highway Fuel Economy Test Procedure* refers to the dynamometer driving schedule, dynamometer procedure, and sampling and analytical procedures described in subpart B of this part and which are used to derive highway fuel economy data.

(9) *Fuel* means (i) gasoline and diesel fuel for gasoline- or diesel-powered automobiles or (ii) electrical energy for electrically powered automobiles or (iii) alcohol for alcohol-powered automobiles or (iv) natural gas for natural gas-powered automobiles.

(10) *Fuel Economy* means (i) the average number of miles traveled by an automobile or group of automobiles per volume of fuel consumed as computed in § 600.113 or § 600.207 or (ii) the equivalent petroleum-based fuel economy for an electrically powered

automobile as determined by the Secretary of Energy.

(11) *City Fuel Economy* means the fuel economy determined by operating a vehicle (or vehicles) over the driving schedule in the Federal emission test procedure.

(12) *Highway Fuel Economy* means the fuel economy determined by operating a vehicle (or vehicles) over the driving schedule in the Federal highway fuel economy test procedure.

(13)(i) *Combined Fuel Economy* means the fuel economy value determined for a vehicle (or vehicles) by harmonically averaging the city and highway fuel economy values, weighted 0.55 and 0.45 respectively.

(ii) For electric vehicles, the term means the equivalent petroleum-based fuel economy value as determined by the calculation procedure promulgated by the Secretary of Energy.

(14) *Average Fuel Economy* means the unique fuel economy value as computed under § 600.510 for a specific class of automobiles produced by a manufacturer that is subject to average fuel economy standards.

(15) *Certification Vehicle* means a vehicle which is selected under § 86.084-24(b)(1) and used to determine compliance under § 86.084-30 for issuance of an original certificate of conformity.

(16) *Fuel Economy Data Vehicle* means a vehicle used for the purpose of determining fuel economy which is not a certification vehicle.

(17) *Label* means a sticker that contains fuel economy information and is affixed to new automobiles in accordance with subpart D of this part.

(18) *Dealer* means a person who resides or is located in the United States or any territory of the United States and who is engaged in the sale or distribution of new automobiles to the ultimate purchaser.

(19) *Model Type* means a unique combination of car line, basic engine, and transmission class.

(20) *Car Line* means a name denoting a group of vehicles within a make or car division which has a degree of commonality in construction (e.g., body, chassis). Car line does not consider any level of decor or opulence and is not generally distinguished by characteristics as roof line, number of doors, seats, or windows, except for station wagons or light-duty trucks. Station wagons and light-duty trucks are considered to be different car lines than passenger cars.

(21) *Basic Engine* means a unique combination of manufacturer, engine displacement, number of cylinders, fuel system (as distinguished by number of

carburetor barrels or use of fuel injection), catalyst usage, and other engine and emission control system characteristics specified by the Administrator. For electric vehicles, basic engine means a unique combination of manufacturer and electric traction motor, motor controller, battery configuration, electrical charging system, energy storage device, and other components as specified by the Administrator.

(22) *Transmission Class* means a group of transmissions having the following common features: Basic transmission type (manual, automatic, or semi-automatic); number of forward gears used in fuel economy testing (e.g., manual four-speed, three-speed automatic, two-speed semi-automatic); drive system (e.g., front wheel drive, rear wheel drive; four-wheel-drive); type of overdrive, if applicable (e.g., final gear ratio less than 1.00, separate overdrive unit); torque converter type, if applicable (e.g., non-lockup, lockup, variable ratio); and other transmission characteristics that may be determined to be significant by the Administrator.

(23) *Base Level* means a unique combination of basic engine inertia weight class and transmission class.

(24) *Vehicle Configuration* means a unique combination of basic engine, engine code, inertia weight class, transmission configuration, and axle ratio within a base level.

(25) *Engine Code* means a unique combination, within an engine-system combination (as defined in part 86 of this chapter), of displacement, carburetor (or fuel injection) calibration, distributor calibration, choke calibration, auxiliary emission control devices, and other engine and emission control system components specified by the Administrator. For electric vehicles, engine code means a unique combination of manufacturer, electric traction motor, motor configuration, motor controller, and energy storage device.

(26) *Inertia Weight Class* means the class, which is a group of test weights, into which a vehicle is grouped based on its loaded vehicle weight in accordance with the provisions of part 86.

(27) *Transmission Configuration* means the Administrator may further subdivide within a transmission class if the Administrator determines that sufficient fuel economy differences exist. Features such as gear ratios, torque converter multiplication ratio, stall speed, shift calibration, or shift speed may be used to further distinguish characteristics within a transmission class.



(28) *Axle Ratio* means the number of times the input shaft to the differential (or equivalent) turns for each turn of the drive wheels.

(29) *Auxiliary Emission Control Device (AECD)* means an element of design as defined in part 86.

(30) *Rounded* means a number shortened to the specific number of decimal places in accordance with the "Round Off Method" specified in ASTM E 29-67.

(31) *Calibration* means the set of specifications, including tolerances, unique to a particular design, version of application of a component, or component assembly capable of functionally describing its operation over its working range.

(32) *Production Volume* means, for a domestic manufacturer, the number of vehicle units domestically produced in a particular model year but not exported, and for a foreign manufacturer, means the number of vehicle units of a particular model imported into the United States.

(33) *Body Style* means a level of commonality in vehicle construction as defined by number of doors and roof treatment (e.g., sedan, convertible, fastback, hatchback) and number of seats (i.e., front, second, or third seat) requiring seat belts pursuant to National Highway Traffic Safety Administration safety regulations. Station wagons and light trucks are identified as car lines.

(34) *Hatchback* means a passenger automobile where the conventional luggage compartment, i.e., trunk, is replaced by a cargo area which is open to the passenger compartment and accessed vertically by a rear door which encompasses the rear window.

(35) *Pickup Truck* means a nonpassenger automobile which has a passenger compartment and an open cargo bed.

(36) *Station Wagon* means a passenger automobile with an extended roof line to increase cargo or passenger capacity, cargo compartment open to the passenger compartment, a tailgate, and one or more rear seats readily removed or folded to facilitate cargo carrying.

(37) *Gross Vehicle Weight Rating* means the manufacturer's gross weight rating for the individual vehicle.

(38) *Ultimate Consumer* means the first person who purchases an automobile for purposes other than resale or leases an automobile.

(39) *Van* means any light truck having an integral enclosure fully enclosing the driver compartment and load carrying device, and having no body sections protruding more than 30 inches ahead of the leading edge of the windshield.

(40) *Base Vehicle* means the lowest priced version of each body style that makes up a car line.

(41) *Nonpassenger Automobile* means an automobile that is not a passenger automobile, as defined by the Secretary of Transportation at 49 CFR 523.5.

(42) *Four-Wheel-Drive General Utility Vehicle* means a four-wheel-drive, general purpose automobile capable of off-highway operation that has a wheelbase not more than 110 inches and that has a body shape similar to a 1977 Jeep CJ-5 or CJ-7, or the 1977 Toyota Land Cruiser, as defined by the Secretary of Transportation at 49 CFR 533.4.

(43) *Test Weight* means the weight within an inertia weight class which is used in the dynamometer testing of a vehicle, and which is based on its loaded vehicle weight in accordance with the provisions of part 86.

(44) *Secretary of Energy* means the Secretary of Energy or his authorized representative.

(45) *Electric Traction Motor* means an electrically powered motor which provides tractive energy to the wheels of a vehicle.

(46) *Energy Storage Device* means a rechargeable means of storing tractive energy on board a vehicle such as storage batteries or a flywheel.

(47) *Motor Controller* means an electronic or electro-mechanical device to convert energy stored in an energy storage device into a form suitable to power the traction motor.

(48) *Electrical Charging System* means a device to convert 60Hz alternating electric current, as commonly available in residential electric service in the United States, to a proper form for recharging the energy storage device.

(49) *Battery Configuration* means the electrochemical type, voltage, capacity (in Watt-hours at the c/3 rate), and physical characteristics of the battery used as the tractive energy device.

(50) *Drive System* is determined by the number and location of drive axles (e.g., front wheel drive, rear wheel drive, four-wheel-drive) and any other feature of the drive system if the Administrator determines that such other features may result in a fuel economy difference.

(51) *Subconfiguration* means a unique combination within a vehicle configuration of equivalent test weight, road-load horsepower, and any other operational characteristics or parameters which the Administrator determines may significantly affect fuel economy within a vehicle configuration.

(52) *Alcohol* means a mixture containing 85 percent or more by volume

methanol, ethanol, or other alcohols, in any combination.

(53) *Alcohol-Fueled Automobile* means an automobile designed to operate exclusively on alcohol.

(54) *Alcohol Dual Fuel Automobile* means an automobile: (i) which is designed to operate on alcohol and on gasoline or diesel fuel; (ii) which provides equal or greater energy efficiency as calculated in accordance with § 600.510(g)(1) while operating on alcohol as it does while operating on gasoline or diesel fuel; (iii) which, for model years 1993 through 1995, provides equal or superior energy efficiency, as calculated in § 600.510(g)(2) while operating on a mixture containing 50 percent alcohol and 50 percent gasoline or diesel fuel as it does while operating on gasoline or diesel fuel; and (iv) which, in the case of passenger automobiles, meets or exceeds the minimum driving range established by the Department of Transportation.

(55) *Natural Gas-Fueled Automobile* means an automobile designed to operate exclusively on natural gas.

(56) *Natural Gas Dual Fuel Automobile* means an automobile: (i) which is designed to operate on natural gas and on gasoline or diesel fuel; (ii) which provides equal or greater energy efficiency as calculated in § 600.510(g)(1) while operating on natural gas as it does while operating on gasoline or diesel fuel; and (iii) which, in the case of passenger automobiles, meets or exceeds the minimum driving range established by the Department of Transportation.

7. Section 600.007-80 of subpart A is amended by revising paragraph (f) to read as follows:

**§ 600.007-80 Vehicle acceptability.**

(f) All vehicles used to generate fuel economy data and subject to emission standards must be covered by a certificate of conformity under part 86 before:

8. A new § 600.101-93 is added to subpart B, to read as follows:

**§ 600.101-93 General applicability.**

The provisions of this subpart are applicable to 1993 and later model year gasoline-fueled, diesel-fueled, alcohol-fueled, natural gas-fueled, alcohol dual fuel, and natural gas dual fuel automobiles.

9. A new § 600.107-93 is added to subpart B, to read as follows:



**§ 600.107-93 Fuel specifications.**

(a) The test fuel specifications for gasoline-fueled automobiles are given in paragraphs (a) (1) and (2) of § 86.113 of this chapter.

(b) The test fuel specifications for diesel-fueled automobiles are given in paragraphs (b) (1) through (3) of § 86.113 of this chapter.

(c) Alcohol fuel used for fuel economy testing and service accumulation of alcohol-fueled automobiles and alcohol dual fuel automobiles shall be representative of commercially available alcohol motor fuel and shall consist of at least 85 percent alcohol by volume except as provided for in § 600.111(i)(3).

(d) Natural gas used for fuel economy testing and service accumulation of natural gas-fueled automobiles and natural gas dual fuel automobiles shall be representative of commercially available natural gas for motor vehicle use.

(e) The specification range of the fuels to be used under paragraphs (c) and (d) of this section shall be reported in accordance with § 86.090-21(b)(3).

10. A new § 600.111-93 is added to subpart B, to read as follows:

**§ 600.111-93 Test procedures.**

(a) The test procedures to be followed for generation of the city fuel economy data are those prescribed in §§ 86.127 through 86.138 of this chapter, as applicable, except as provided for in paragraph (d) of this section. (The evaporative loss portion of the test procedure may be omitted unless specifically required by the Administrator.)

(b) The test procedures to be followed for generation of the highway fuel economy data are those specified in § 600.111-93 (b) through (j) inclusive.

(1) The Highway Fuel Economy Dynamometer Procedure consists of preconditioning highway driving sequence and a measured highway driving sequence.

(2) The highway fuel economy test is designated to simulate non-metropolitan driving with an average speed of 48.6 mph and a maximum speed of 60 mph. The cycle is 10.2 miles long with 0.2 stops per mile and consists of warmed-up vehicle operation on a chassis dynamometer through a specified driving cycle. A proportional part of the diluted exhaust emission is collected continuously for subsequent analysis of hydrocarbons, carbon monoxide, carbon dioxide using a constant volume (variable dilution) sampler. Diesel dilute exhaust is continuously analyzed for hydrocarbons using a heated sample line and analyzer. Methanol and

formaldehyde samples are collected and individually analyzed for methanol-fueled vehicles (measurement of methanol and formaldehyde may be omitted for 1993 through 1994 model year methanol-fueled vehicles provided a HFID calibrated on methanol is used for measuring HC plus methanol).

(3) Except in cases of component malfunction or failure, all emission control systems installed on or incorporated in a new motor vehicle must be functioning during all procedures in this subpart. The Administrator may authorize maintenance to correct component malfunction or failure.

(c) *Transmission.* The provisions of § 86.128 of this chapter apply for vehicle transmission operation during highway fuel economy testing under this subpart.

(d) *Road-load power and test weight determination.* Section 86.129 of this chapter applies for determination of road-load power and test weight for highway fuel economy testing. The test weight for the testing of a certification vehicle will be that test weight specified by the Administrator under the provisions of part 86. The test weight for a fuel economy data vehicle will be that test weight specified by the Administrator from the test weights covered by that vehicle configuration. The Administrator will base his selection of a test weight on the relative projected sales volumes of the various test weights within the vehicle configuration. In the case of methanol dual fuel vehicles, for city and highway fuel economy testing, the equivalent test weight for a fuel economy data vehicle is to be determined from the loaded vehicle weight when the vehicle is fueled with the appropriate test fuel.

(e) *Vehicle preconditioning.* The Highway Fuel Economy Dynamometer Procedure is designed to be performed immediately following the Federal Emission Test Procedure, §§ 86.127 through 86.138 of this chapter. When conditions allow, the tests should be scheduled in this sequence. In the event the tests cannot be scheduled within three hours of the Federal Emission Test Procedure (including one hour hot soak evaporative loss test, if applicable) the vehicle should be preconditioned as in paragraph (e) (1) or (2) of this section, as applicable.

(1) If the vehicle has experienced more than three hours of soak (68 °F-86 °F) since the completion of the Federal Emission Test Procedure or if the vehicle has experienced periods of storage outdoors or in environments where soak temperature is not controlled to 68 °F-86 °F, the vehicle must be preconditioned by operation on

a dynamometer through one cycle of the EPA Urban Dynamometer Driving Schedule, § 86.115 of this chapter.

(2) In unusual circumstances where additional preconditioning is desired by the manufacturer, the provisions of paragraph (a)(3) of § 86.132 of this chapter apply.

(f) *Highway fuel economy dynamometer procedure.* (1) The dynamometer procedure consists of two cycles of the Highway Fuel Economy Driving Schedule (§ 600.109(b)) separated by 15 seconds of idle. The first cycle of the Highway Fuel Economy Driving Schedule is driven to precondition the test vehicle and the second is driven for the fuel economy measurement.

(2) The provisions of paragraphs (b), (c), (e), (f), (g) and (h) of § 86.135 *Dynamometer procedure* of this chapter, apply for highway fuel economy testing.

(3) Only one exhaust sample and one background sample are collected and analyzed for hydrocarbons (except diesel hydrocarbons which are analyzed continuously), carbon monoxide, and carbon dioxide. Methanol and formaldehyde samples (exhaust and dilution air) are collected and analyzed for methanol-fueled vehicles (measurement of methanol and formaldehyde may be omitted for 1993 through 1994 model year methanol-fueled vehicles provided a HFID calibrated on methanol is used for measuring HC plus methanol).

(4) The fuel economy measurement cycle of the test includes two seconds of idle indexed at the beginning of the second cycle and two seconds of idle indexed at the end of the second cycle.

(g) *Engine starting and restarting.* (1) If the engine is not running at the initiation of the highway fuel economy test (preconditioning cycle), the start-up procedure must be according to the manufacturer's recommended procedures.

(2) False starts and stalls during the preconditioning cycle must be treated as in paragraphs (d) and (e) of § 86.136 of this chapter. If the vehicle stalls during the measurement cycle of the highway fuel economy test, the test is voided, corrective action may be taken according to § 86.079-25 of this chapter, and the vehicle may be rescheduled for test. The person taking the corrective action shall report the action so that the test records for the vehicle contain a record of the action.

(h) *Dynamometer test run.* The following steps must be taken for each test:

(1) Place the drive wheels of the vehicle on the dynamometer. The



vehicle may be driven onto the dynamometer.

(2) Open the vehicle engine compartment cover and position the cooling fan(s) required. Manufacturers may request the use of additional cooling fans for additional engine compartment or under-vehicle cooling and for controlling high tire or brake temperatures during dynamometer operation.

(3) Preparation of the CVS must be performed before the measurement highway driving cycle.

(4) Equipment preparation. The provisions of paragraphs (b) (3) through (6) inclusive of § 86.137 of this chapter apply for highway fuel economy test except that only one exhaust sample collection bag and one dilution air sample collection bag need be connected to the sample collection systems.

(5) Operate the vehicle over one Highway Fuel Economy Driving Schedule cycle according to the dynamometer driving schedule specified in paragraph (b) of § 600.109.

(6) When the vehicle reaches zero speed at the end of the preconditioning cycle, the driver has 17 seconds to prepare for the emission measurement cycle of the test. Reset and enable the roll revolution counter.

(7) Operate the vehicle over one Highway Fuel Economy Driving Schedule cycle according to the dynamometer driving schedule specified in paragraph (b) of § 600.109 while sampling the exhaust gas.

(8) Sampling must begin two seconds before beginning the first acceleration of the fuel economy measurement cycle and must end two seconds after the end of the deceleration to zero. At the end of the deceleration to zero speed, the roll or shaft revolutions must be recorded.

(i) For alcohol dual fuel automobiles, the procedures of § 600.111 (a) and (b) shall be performed for each of the required test fuels:

(1) Gasoline or diesel fuel as specified in § 600.107 (a) and (b).

(2) Alcohol fuel as specified in § 600.107(c), and

(3) A mixture containing 50% gasoline or diesel and 50% alcohol by volume, applicable during model years 1993 through 1995.

(j) For natural gas dual fuel automobiles, the procedures of § 600.111 (a) and (b) shall be performed for each of the required test fuels:

(1) Gasoline or diesel fuel as specified in § 600.107 (a) and (b), and

(2) Natural gas fuel as specified in § 600.107(d).

(11) A new § 600.113-93 is added to subpart B, to read as follows:

#### § 600.113-93 Fuel Economy calculations.

The Administrator will use the calculation procedure set forth in this paragraph for all official EPA testing of vehicles fueled with gasoline, diesel, or methanol fuel. The calculations of the weighted fuel economy values require input of the weighted grams/mile values for HC, CO, and CO<sub>2</sub>, and, where applicable CH<sub>3</sub>OH and HCHO for both the city fuel economy test and the highway fuel economy test.

Additionally, for tests for gasoline-fueled vehicles, the specific gravity, carbon weight fraction and net heating value of the test fuel must be determined. The city and highway fuel economy values shall be calculated as specified in this section. A sample appears in appendix II of this part.

(a) Calculate the weighted grams/mile values for the city fuel economy test for HC, CO, and CO<sub>2</sub>, and where applicable, CH<sub>3</sub>OH and HCHO as specified in § 86.144 of this chapter. For test of gasoline-fueled vehicles, measure and record the test fuel's properties as specified in paragraph (c) of this section.

(b)(1) Calculate the mass values for the highway fuel economy test for HC, CO, and CO<sub>2</sub>, and CH<sub>3</sub>OH and HCHO where applicable, as specified in paragraph (b) of § 86.144 of this chapter. For tests of gasoline-fueled vehicles, measure and record the test fuel's properties as specified in paragraph (c) of this section.

(2) Calculate the grams/mile values for the highway fuel economy test for HC, CO, and CO<sub>2</sub>, and CH<sub>3</sub>OH and HCHO where applicable, by dividing the mass values obtained in paragraph (b)(1) of this section, by the actual distance traveled, measured in miles, as specified in paragraph (h) of § 86.135 of this part.

(c) Gasoline test fuel properties shall be determined by analysis of a fuel sample taken from the fuel supply. A sample shall be taken after each addition of fresh fuel to the fuel supply. Additionally, the fuel shall be resampled once a month to account for any fuel property changes during storage. Less frequent resampling may be permitted if EPA concludes, on the basis of manufacturer-supplied data, that the properties of test fuel in the manufacturer's storage facility will remain stable for a period longer than one month. The fuel samples shall be analyzed to determine the following fuel properties:

(1) Specific gravity per ASTM D 1298.

(2) Carbon weight fraction per ASTM D 3343.

(3) Net heating value (Btu/lb) per ASTM D 3338.

(d) Calculate the city fuel economy and highway fuel economy from the grams/mile values for HC, CO, CO<sub>2</sub>, and CH<sub>3</sub>OH and HCHO where applicable, and, for test of gasoline-fueled vehicles, the test fuel's specific gravity, carbon weight fraction and net heating value. The emission values (obtained per paragraph (a) or (b) of this section, as applicable) used in each calculation of this section shall be rounded in accordance with § 86.084-26(a)(6)(iii). The CO<sub>2</sub> values (obtained per paragraph (a) or (b) of this section, as applicable) used in each calculation of this section shall be rounded to the nearest gram/mile. The specific gravity and the carbon weight fraction (obtained per paragraph (c) of this section) shall be recorded using three places to the right of the decimal point. The net heating value (obtained per paragraph (c) of this section) shall be recorded to the nearest whole Btu/lb. These numbers shall be rounded in accordance with the "Rounding Off Method" specified in ASTM E 29-67.

(e) For automobiles fueled with gasoline, the fuel economy in miles per gallon is to be calculated using the following equation:

$$\text{mpg} = (5174 \times 10^4 \times \text{CWF} \times \text{SG}) / [((\text{CWF} \times \text{HC}) + (0.429 \times \text{CO}) + (0.273 \times \text{CO}_2)) \times ((0.6 \times \text{SG} \times \text{NHV}) + 5471)]$$

Where:

HC = Grams/mile HC as obtained in paragraph (d) of this section.

CO = Grams/mile CO as obtained in paragraph (d) of this section.

CO<sub>2</sub> = Grams/mile CO<sub>2</sub> as obtained in paragraph (d) of this section.

CWF = Carbon weight fraction of test fuel as obtained in paragraph (d) of this section.

NHV = Net heating value by mass of test fuel as obtained in paragraph (d) of this section.

SG = Specific gravity of test fuel as obtained in paragraph (d) of this section.

Round the calculated result to the nearest 0.1 miles per gallon.

(f) For automobiles fueled with diesel, calculate the fuel economy in miles per gallon of diesel fuel by dividing 2778 by the sum of three terms:

(1) 0.866 multiplied by HC (in grams/mile as obtained in paragraph (d) of this section).

(2) 0.429 multiplied by CO (in grams/mile as obtained in paragraph (d) of this section), and

(3) 0.273 multiplied by CO<sub>2</sub> (in grams/mile as obtained in paragraph (d) of this section).

Round the quotient to the nearest 0.1 mile per gallon.

(g) For methanol-fueled automobiles and automobiles designed to operate on



mixtures of gasoline and methanol, the fuel economy in miles per gallon is to be calculated using the following equation:

$$\text{mpg} = \frac{[(0.866 \times 2796 \times G) + (0.375 \times 2994 \times M)]}{[(0.866 \times \text{HC}) + (0.429 \times \text{CO}) + (0.273 \times \text{CO}_2) + (0.375 \times \text{CH}_3\text{OH}) + (0.400 \times \text{HCHO})]}$$

Where:

HC = Grams/mile HC as obtained in paragraph (d) of this section.

CO = Grams/mile CO as obtained in paragraph (d) of this section.

CO<sub>2</sub> = Grams/mile CO<sub>2</sub> as obtained in paragraph (d) of this section.

CH<sub>3</sub>OH = Grams/mile CH<sub>3</sub>OH (methanol) as obtained in paragraph (d) of this section.

HCHO = Grams/mile HCHO (formaldehyde) as obtained in paragraph (d) of this section.

G = gasoline volume percentage divided by 100.

M = methanol volume percentage divided by 100.

(h) For methanol dual fuel vehicles tested on gasoline, the fuel economy is determined as specified in paragraph (e) of this section.

12. A new § 600.201-93 is added to subpart C, to read as follows:

**§ 600.201-93 General applicability.**

(a) The provisions of this subpart are applicable to 1993 and later model year gasoline-fueled, diesel-fueled, alcohol-fueled, natural gas-fueled, alcohol dual fuel, and natural gas dual fuel automobiles.

13. A new § 600.206-93 is added to subpart C, to read as follows:

**§ 600.206-93 Calculation and use of fuel economy values for gasoline-fueled, diesel-fueled, electric, alcohol-fueled, natural gas-fueled, alcohol dual fuel, and natural gas dual fuel vehicle configurations.**

(a) Fuel economy values determined for each vehicle, and as approved in § 600.008 (b) or (f), are used to determine city, highway, and combined fuel economy values for each vehicle configuration (as determined by the Administrator) for which data are available.

(1) If only one set of city and highway fuel economy values is accepted for a vehicle configuration, these values, rounded to the nearest tenth of a mile per gallon, comprise the city and highway fuel economy values for that configuration.

(2) If more than one city or highway fuel economy value is accepted for a vehicle configuration:

(i) All data shall be grouped according to the subconfiguration for which the data were generated using sales projections supplied in accordance with § 600.0207(a)(3).

(ii) Within each group of data, all values are harmonically averaged and rounded to the nearest 0.0001 of a mile

per gallon in order to determine city and highway fuel economy values for each subconfiguration at which the vehicle configuration was tested.

(iii) All city fuel economy values and all highway fuel economy values calculated in paragraph (a)(2)(ii) of this section are (separately for city and highway) averaged in proportion to the sales fraction (rounded to the nearest 0.0001) within the vehicle configuration (as provided to the Administrator by the manufacturer) of vehicles of each tested subconfiguration. The resultant values, rounded to the nearest 0.0001 mile per gallon, are the city and highway fuel economy values for the vehicle configuration.

(3) The combined fuel economy value for a vehicle configuration is calculated by harmonically averaging the city and highway fuel economy values, as determined in § 600.206(a)(1) or (2), weighted 0.55 and 0.45 respectively, and rounded to the nearest 0.0001 mile per gallon. A sample of this calculation appears in appendix II to this part.

(4) For alcohol dual fuel automobiles and natural gas dual fuel automobiles the procedures of paragraphs (a) (1) through (3) of this section shall be used to calculate two separate sets of city, highway, and combined fuel economy values for each configuration.

(i) Calculate the city, highway, and combined fuel economy values from the tests performed using gasoline or diesel test fuel.

(ii) Calculate the city, highway, and combined fuel economy values from the tests performed using alcohol or natural gas test fuel.

(b) If only one equivalent petroleum-based fuel economy value exists for an electric configuration, that value, rounded to the nearest tenth of a mile per gallon, will compose the petroleum-based fuel economy for that configuration.

(c) If more than one equivalent petroleum-based fuel economy value exists for an electric vehicle configuration, all values for that vehicle configuration are harmonically averaged and rounded to the nearest 0.0001 mile per gallon for that configuration.

14. A new § 600.207-93 is added to subpart C, to read as follows:

**§ 600.207-93 Calculation of fuel economy values for a model type.**

(a) Fuel economy values for a base level are calculated from vehicle configuration fuel economy values as determined in § 600.206(a) for low-altitude tests.

(1) If the Administrator determines that automobiles intended for sale in the State of California are likely to exhibit

significant differences in fuel economy from those intended for sale in other states, he will calculate fuel economy values for each base level for vehicles intended for sale in California and for each base level for vehicles intended for sale in the rest of the states.

(2) In order to highlight the fuel efficiency of certain designs otherwise included within a model type, a manufacturer may wish to subdivide a model type into one or more additional model types. This is accomplished by separating subconfigurations from an existing base level and placing them into a new base level. The new base level is identical to the existing base level except that it shall be considered, for the purposes of this paragraph, as containing a new basic engine. The manufacturer will be permitted to designate such new basic engines and base level(s) if:

(i) Each additional model type resulting from division of another model type has a unique car line name and that name appears on the label and on the vehicle bearing that label.

(ii) The subconfigurations included in the new base levels are not included in any other base level which differs only by basic engine (i.e., they are not included in the calculation of the original base level fuel economy values), and

(iii) All subconfigurations within the new base level are represented by test data in accordance with § 600.010(c)(ii).

(3) The manufacturer shall supply total model year sales projections for each car line/vehicle subconfiguration combination.

(i) Sales projections must be supplied separately for each car line-vehicle subconfiguration intended for sale in California and each car line/vehicle subconfiguration intended for sale in the rest of the states if required by the Administrator under paragraph (a)(1) of this section.

(ii) Manufacturers shall update sales projections at the time any model type value is calculated for a label value.

(iii) The requirements of this paragraph may be satisfied by providing an amended application for certification, as described in § 86.084-21.

(4) Vehicle configuration fuel economy values, as determined in § 600.206(a), are grouped according to base level.

(i) If only one vehicle configuration within a base level has been tested, the fuel economy value from that vehicle configuration constitutes the fuel economy for that base level.

(ii) If more than one vehicle configuration within a base level has been tested, the vehicle configuration



fuel economy values are harmonically averaged in proportion to the respective sales fraction (rounded to the nearest 0.0001) of each vehicle configuration and the resultant fuel economy value rounded to the nearest 0.0001 mile per gallon.

(5) The procedure specified in § 600.207(a) will be repeated for each base level, thus establishing city, highway, and combined fuel economy values for each base level.

(6) For the purposes of calculating a base level fuel economy value, if the only vehicle configuration(s) within the base level are vehicle configuration(s) which are intended for sale at high altitude, the Administrator may use fuel economy data from tests conducted on these vehicle configuration(s) at high altitude to calculate the fuel economy for the base level.

(7) For alcohol dual fuel automobiles and natural gas dual fuel automobiles the procedures of paragraphs (a) (1) through (6) of this section shall be used to calculate two separate sets of city, highway, and combined fuel economy values for each base level.

(i) Calculate the city, highway, and combined fuel economy values from the tests performed using gasoline or diesel test fuel.

(ii) Calculate the city, highway, and combined fuel economy values from the tests performed using alcohol or natural gas tests fuel.

(b) For each model type, as determined by the Administrator, a city, highway, and combined fuel economy value will be calculated by using the projected sales and fuel economy values for each base level within the model type.

(1) If the Administrator determines that automobiles intended for sale in the State of California are likely to exhibit significant differences in fuel economy from those intended for sale in other states, he will calculate fuel economy values for each model type for vehicles intended for sale in California and for each model type for vehicles intended for sale in the rest of the states.

(2) The sales fraction for each base level is calculated by dividing the projected sale of the base level within the model type by the projected sale of the model type and rounding the quotient to the nearest 0.0001.

(3) The city fuel economy values of the model type (calculated to the nearest 0.0001 mpg) are determined by dividing one by a sum of terms, each of which corresponds to a base level and which is a fraction determined by dividing:

- (i) The sale fraction of a base level, by
- (ii) The city fuel economy value for the respective base level.

(4) The procedure specified in paragraph (b)(3) of this section is repeated in an analogous manner to determine the highway and combined fuel economy values for the model type.

(5) For alcohol dual fuel automobiles and natural gas dual fuel automobiles the procedures of paragraph (b) (1) through (4) of this section shall be used to calculate two separate sets of city, highway, and combined fuel economy value for each model type.

(i) Calculate the city, highway, and combined fuel economy values from the tests performed using gasoline or diesel test fuel.

(ii) Calculate the city, highway, and combined fuel economy values from the tests performed using alcohol or natural gas test fuel.

15. A new § 600.209-93 is added to subpart C, to read as follows:

**§ 600.209-93 Calculation of fuel economy values for labeling.**

(a) For the purposes of calculating the city model type fuel economy value for labeling the manufacturer shall:

(1)(i) *For general labels for gasoline-fueled, diesel-fueled, and alcohol-fueled automobiles* multiply the city model type fuel economy value determined in § 600.207(b), by 0.90, rounding the product to the nearest whole mpg.

(ii) *For general labels for natural gas-fueled automobiles*, multiply the city model type fuel economy value determined in § 600.207(b), by 0.90, rounding the product to the nearest whole mpg.

(iii) *For general labels for alcohol dual fuel and natural gas dual fuel automobiles:*

(A) Multiply the city model type fuel economy calculated from the tests performed using gasoline or diesel test fuel as determined in § 600.207(b)(5)(i) by 0.90, rounding the product to the nearest whole mpg, and

(B) Multiply the city model type fuel economy calculated from the tests performed using alcohol or natural gas test fuel as determined in

§ 600.207(b)(5)(ii) by 0.90, rounding the product to the nearest whole mpg, or

(2)(i) *For specific labels for gasoline-fueled, diesel-fueled, and alcohol-fueled automobiles*, multiply the city model type fuel economy value determined in § 600.206(a)(2)(iii), by 0.90, rounding the product to the nearest whole mpg.

(ii) *For specific labels for natural gas-fueled automobiles*, multiply the city model type fuel economy value determined in § 600.206(a)(2)(iii), by 0.90, rounding the product to the nearest whole mpg.

(iii) *For specific labels for alcohol dual fuel and natural gas dual fuel automobiles:*

(A) Multiply the city model type fuel economy calculated from the tests performed using gasoline or diesel test fuel as determined in § 600.206(a)(2)(iii) and (4)(i) by 0.90, rounding the product to the nearest whole mpg, and

(B) Multiply the city model type fuel economy calculated from the tests performed using alcohol or natural gas test fuel as determined in § 600.206(a)(2)(iii) and (4)(ii) by 0.90, rounding the product to the nearest whole mpg, and

(b) For the purposes of calculating the highway model type fuel economy value for labeling the manufacturer shall:

(1)(i) *For general labels for gasoline-fueled, diesel-fueled, and alcohol-fueled automobiles*, multiply the highway model type fuel economy value determined in § 600.207(b), by 0.78, rounding the product to the nearest whole mpg.

(ii) *For general labels for natural gas-fueled automobiles*, multiply the highway model type fuel economy value determined in § 600.207(b), by 0.78, rounding the product to the nearest whole mpg.

(iii) *For general labels for alcohol dual fuel and natural gas dual fuel automobiles:*

(A) Multiply the highway model type fuel economy calculated from the tests performed using gasoline or diesel test fuel as determined in § 600.207(b)(5)(i) by 0.78, rounding the product to the nearest whole mpg, and

(B) Multiply the highway model type fuel economy calculated from the tests performed using alcohol or natural gas test fuel as determined in § 600.207(b)(5)(ii) by 0.78, rounding the product to the nearest whole mpg, or

(2)(i) *For specific labels for gasoline-fueled, diesel-fueled, and alcohol-fueled automobiles*, multiply the highway model type fuel economy value determined in § 600.206(a)(iii), by 0.78, rounding the product to the nearest whole mpg.

(ii) *For specific labels for natural gas-fueled automobiles*, multiply the highway model type fuel economy value determined in § 600.206(a)(iii), by 0.78, rounding the product to the nearest whole mpg.

(iii) *For specific labels for alcohol dual fuel and natural gas dual fuel automobiles:*

(A) Multiply the highway model type fuel economy calculated from the tests performed using gasoline or diesel test fuel as determined in § 600.206(a)(2)(iii) and (4)(i) by 0.78, rounding the product to the nearest whole mpg, and



(B) Multiply the highway model type fuel economy calculated from the tests performed using alcohol or natural gas test fuel as determined in § 600.206(a)(2)(iii) and (4)(ii) by 0.78, rounding the product to the nearest whole mpg.

(c) If the resulting city value determined in paragraph (a) of this section exceeds the resulting highway value determined in paragraph (b) of this section, the city value will be set equal to the highway value.

(d) For the purposes of calculating the combined fuel economy for a model type, to be used in determining annual fuel costs under § 600.307, the manufacturer shall (except as provided for in paragraph (d)(2) of this section):

(1)(i) *For gasoline-fueled, diesel-fueled, and alcohol-fueled automobiles*, harmonically average the unrounded city and highway values, determined in (a)(1)(i) and (b)(1)(i), or (a)(2)(i) and (b)(2)(i) of this section weighted 0.55 and 0.45 respectively, and round to the nearest whole mpg. (An example of this calculation procedure appears in appendix II of this part).

(ii) *For natural gas-fueled automobiles*, harmonically average the unrounded city and highway values, determined in (a)(1)(ii) and (b)(1)(ii), or (a)(2)(ii) and (b)(2)(ii) of this section weighted 0.55 and 0.45 respectively, and round to the nearest whole mpg.

(iii) *For alcohol dual fuel and natural gas dual fuel automobiles*, harmonically average the unrounded city and highway values from the tests performed using gasoline or diesel test fuel as determined in (a)(1)(iii)(A) and (b)(1)(iii)(A), or (a)(2)(iii)(A) and (b)(2)(iii)(A) of this section.

(2) If the resulting city value determined in paragraph (a) of this section exceeds the resulting highway value determined in paragraph (b) of this section, the combined fuel economy will be set equal to the highway value, rounded to the nearest whole mpg.

#### Subpart D—Fuel Economy Regulations for 1977 and Later Model Year Automobiles—Labeling

16. A new § 600.301–93 is added to subpart D, to read as follows:

##### § 600.301–93 General applicability.

(a) The provisions of this subpart are applicable to 1993 and later model year gasoline-fueled, diesel-fueled, alcohol-fueled, natural gas-fueled, alcohol dual fuel, and natural gas dual fuel automobiles.

(b)(1) Manufacturers that produce only electric vehicles are exempt from the requirement of this subpart, except with regard to the requirements in those

sections pertaining specifically to electric vehicles.

(2) Manufacturers with worldwide production (excluding electric vehicle production) of less than 10,000 gasoline-fueled and/or diesel powered passenger automobiles and light trucks may optionally comply with the electric vehicle requirements in this subpart.

17. A new § 600.307–93 is added to subpart D, to read as follows:

##### § 600.307–93 Fuel economy label format requirements.

(a)(1) Fuel economy labels must be:

(i) Rectangular in shape with a minimum height of 4.5 inches (114 mm) and a minimum length of 7.0 inches (178 mm) as depicted in appendix VIII.

(ii) Printed in a color which contrasts with the paper color.

(iii) The label shall have a contrasting border at least 0.25 inches (6.4 mm) wide.

(2) The top 50 percent of the total fuel economy label area shall contain only the following information and in the same format depicted in the label format in appendix VIII:

(i) The titles "CITY MPG" and "HIGHWAY MPG" centered over the applicable fuel economy estimates, in bold caps 10 points in size.

(ii)(A) *For gasoline-fueled, diesel-fueled, alcohol-fueled, and natural gas-fueled automobiles*, the city and highway fuel economy estimates calculated in accordance with § 600.209 (a) and (b).

(B) *For alcohol dual fuel automobiles and natural gas dual fuel automobiles*, the city and highway fuel economy estimates for operation on gasoline or diesel fuel as calculated in § 600.209(a)(1)(iii)(A) or (2)(iii)(A) and § 600.209(b)(1)(iii)(A) or (2)(iii)(A).

(iii) The fuel pump logo, and

(iv) The phrase "Compare this (vehicle/truck) to others in the FREE GAS MILEAGE GUIDE available at the dealer," shall be "dropped-out" of the top border as depicted in the sample label format in appendix VIII. The phrase shall be in lower case in a medium condensed type except for the words "FREE GAS MILEAGE GUIDE" which shall be capitalized in a bold condensed type and no smaller than 12 points in size.

(v)(A) *For alcohol-fueled automobiles*, the title "(insert appropriate fuel (example "METHANOL")\*)". The title shall be positioned above the fuel pump logo and shall be in upper case in a bold condensed type and no smaller than 12 points in size.

(B) *For natural gas-fueled automobiles*, the title "NATURAL GAS \*". The title shall be positioned above

the fuel pump logo and shall be in upper case in a bold condensed type and no smaller than 12 points in size.

(C) *For alcohol dual fuel automobiles and natural gas dual fuel automobiles*, the title "DUAL FUEL \*". The title shall be positioned above the fuel pump logo and shall be in upper case in a bold condensed type and no smaller than 12 points in size.

(3) The bottom 50 percent of the label shall contain the following information:

(i) The (vehicle/truck) description, as described in paragraph (c) or (d) of the section, when applicable.

(ii)(A) A statement: "Actual mileage will vary with options, driving conditions, driving habits and [vehicle's/truck's] condition. Results reported to EPA indicate that the majority of (vehicle/truck) with these estimates will achieve between \_\_\_\_ and \_\_\_\_ (mpg) in the city, and between \_\_\_\_ and \_\_\_\_ (mpg) on the highway."

(B) The range values for this statement are to be calculated in accordance with the following:

(1) The lower range values shall be determined by multiplying the city and highway estimates by 0.85, then rounding to the next lower integer value.

(2) The upper range values shall be determined by multiplying the city and highway estimates by 1.15 and rounding to the next higher integer value.

(iii)(A) A statement: "For comparison shopping, all [vehicles/trucks] classified as (insert category as determined in § 600.315) have been issued mileage ratings ranging from \_\_\_\_ to \_\_\_\_ (mpg) city and \_\_\_\_ to \_\_\_\_ (mpg) highway." (The range values are those determined in accordance with § 600.311.) or, when applicable,

(B) A statement: "A range of fuel economy values for other (vehicles/trucks) classified as (insert category as determined in § 600.315) is not available at this time." or by the statement: "Not available."

(iv)(A) The statement: "Estimated Annual Fuel Cost:" followed by the appropriate value calculated in accordance with paragraph (g) or (h) of this section. The estimated annual fuel cost value for alcohol dual fuel automobiles and natural gas dual fuel vehicles to appear on the fuel economy label shall be that calculated based on operating the vehicle on gasoline or diesel fuel as determined in § 600.307 (g) and (h).

(B) At the manufacturers option, it may include the fuel cost and the annual mileage interval used to determine the annual fuel cost.

(v) For the 1986 model year only, the statement: "Under EPA's previous fuel



economy program, used prior to the 1985 model, year this (vehicle/truck) would have received a single estimate of (insert unadjusted city value rounded to the nearest whole mpg, as determined in § 600.207(b)) mpg."

(vi)(A) The Gas Guzzler statement, when applicable (see paragraph (f) of this section), must be centered on a separate line between the bottom border and the Estimated Annual Fuel Cost statements. The words "Gas Guzzler" shall be highlighted.

(B) The type size shall be at least as large as the largest type size in the bottom 50 percent of the label.

(vii)(A) For alcohol-fueled and natural gas-fueled automobiles, the statement: "This vehicle operates on (insert appropriate fuel(s)) only." shall appear on the bottom border. The phrase shall be in lower case in a medium condensed type except for the fuels listed which shall be capitalized in a bold condensed type no smaller than 12 points in size.

(B) For natural gas-fueled automobiles, the statements: "All fuel economy values on this label pertain to gasoline equivalent fuel economy. To convert these values into units of miles per 100 cubic feet of natural gas, multiply by 0.823."

(C) For alcohol dual fuel automobiles and natural gas dual fuel automobiles, the statement: "This dual fuel vehicle operates on (insert appropriate alternative fuel(s)) or (insert gasoline or diesel as appropriate)." shall appear on the bottom border. The phrase shall be in lower case in a medium condensed type except for the words "gasoline" or "diesel" (as appropriate) and the other fuels listed, which shall be capitalized in a bold condensed type no smaller than 12 points in size.

(viii) For alcohol dual fuel automobiles and natural gas dual fuel automobiles, the statement: "All fuel economy values on this label pertain to (insert gasoline or diesel as appropriate) fuel usage. (insert other fuel(s) as appropriate) fuel(s) usage will yield different values. See the GAS MILEAGE GUIDE for information on (insert other fuel(s)) fuel(s) usage."

(4) The maximum type size for the statements located in the lower 50 percent of the label shall not exceed 10 points in size, except as provided for in paragraphs (a)(3)(vii) (A) and (B) of this section.

(b)(1) The city mpg number shall be displayed on the left and the highway mpg number displayed on the right.

(2)(i) Except for the digit "one," each mpg digit shall measure at least 0.35 inches by 0.6 inches (9 x 15 mm) in width and height respectively.

(ii) The digit "one," shall measure at least 0.2 inches by 0.8 inches (5 x 15 mm) in width and height respectively.

(3) The strike width of each mpg digit shall be at least 0.075 inches (1.9 mm).

(4)(i) MPG digits not printed as a single character shall be made of a matrix of smaller characters. This matrix shall be at least four characters wide by five characters high (with the exception of three characters wide for the numerical character denoting "one").

(ii) The small characters shall be made of successive overstrikes to form a reasonably dark and continuous line that approximates a single large character.

(5)(i) If a manufacturer chooses to enlarge the label from that depicted in appendix VIII, the logo and the fuel economy label values, including the titles "CITY MPG" and "HIGHWAY MPG" must be increased in the same proportion.

(ii) The area bounded by the bottom of the fuel pump logo to the top of the border must continue to represent at least 50 percent of the available label area.

(C) The vehicle description on general labels will be as follows:

(1) Model year;  
(2) Vehicle car line;  
(3) Engine displacement, in cubic inches, cubic centimeters, or liters whichever is consistent with the customary description of that engine;

(4) Number of engine cylinders or rotors;

(5) Additional engine description, if necessary to distinguish otherwise identical model types, as approved by the Administrator;

(6) Fuel metering system, including number of carburetor barrels, if applicable;

(7) Transmission class;

(8) Catalyst usage, if necessary to distinguish otherwise identical model types; and

(9) California emission control system usage, if applicable and if the Administrator determines that automobiles intended for sale in the State of California are likely to exhibit significant differences in fuel economy from those intended for sale in other states.

(d) The vehicle description on specific labels will be as follows:

(1) The descriptions of paragraph (c) of this section;

(2) Inertia weight class;

(3) Axle ratio; and

(4) Other engine or vehicle parameters, if approved by the Administrator.

(e) Where the fuel economy label is incorporated with the pricing

information sticker, the applicable vehicle description, as set forth in paragraph (c) or (d) of this section, does not have to be repeated if the information is readily found on the Motor Vehicle Information and Cost Savings Act label.

(f)(1) For fuel economy labels of passenger automobile model types requiring a tax statement under § 600.513, the phrase "Gas Guzzler Tax: \$ \* \* \*".

(2) The tax value required by this paragraph shall be based on the combined fuel economy value for the model type calculated in accordance with § 600.207 and rounded to the nearest 0.1 mpg. Adjustments in accordance with § 600.209 will not be used to determine the tax liability.

(g) General labels. The annual fuel cost estimate for operating an automobile included in a model type shall be computed by using values for the fuel cost per gallon and average annual mileage, predetermined by the Administrator, and the fuel economy determined in § 600.209(d).

(1) The annual fuel cost estimate for a model type is computed by multiplying:

(i) Fuel cost per gallon (natural gas must be expressed in units of cost per equivalent gallon where 100 SCF = 0.823 equivalent gallons) expressed in dollars to the nearest 0.05 dollar, by

(ii) Average annual mileage, expressed in miles per year to the nearest 1,000 miles per year, by

(iii) The average, rounded to the nearest 0.0001 gallons per mile of the fuel economy value determined in § 600.209(d) for a model type.

(2) The product computed in paragraph (g)(1) of this section and rounded to the nearest dollar per year will comprise the annual fuel cost estimate that appears on general labels for the model type.

(h) Specific labels. The annual fuel cost estimate for operating an automobile included in a vehicle configuration will be computed by using the values for the fuel cost per gallon and average mileage and the fuel economy determined in paragraph (h)(1)(iii) of this section.

(1) The annual fuel cost estimate for vehicle configuration is computed by multiplying:

(i) Fuel cost per gallon (natural gas must be expressed in units of cost per equivalent gallon where 100 SCF = 0.823 equivalent gallons) expressed in dollars to the nearest 0.05 dollar, by

(ii) Average annual mileage, expressed in miles per year to the nearest 1,000 miles per year, by



(iii) The inverse, rounded to the nearest 0.0001 gallons per mile, of the fuel economy value determined in § 600.206(a)(2)(iii) for a vehicle configuration (city and highway values will be adjusted by the factors in § 600.209 (a) and (b) and combined according to § 600.209(d) before the calculation).

(2) The product computed in paragraph (h)(1) of this section and rounded to the nearest dollar per year will comprise the annual fuel cost estimate that appears on specific labels for that vehicle configuration.

18. A new § 600.501-93 is added to subpart F, to read as follows:

**§ 600.501-93 General applicability.**

(a) The provisions of this subpart are applicable to 1993 and later model year gasoline-fueled, diesel-fueled, alcohol-fueled, natural gas-fueled, alcohol dual fuel and natural gas dual fuel automobiles.

(b)(1) Manufacturers that produce only electric vehicles are exempt from the requirement of this subpart, except with regard to the requirements in those sections pertaining specifically to electric vehicles.

(2) Manufacturers with worldwide production (excluding electric vehicle production) of less than 10,000 gasoline-fueled and/or diesel powered passenger automobiles and light trucks may optionally comply with the electric vehicle requirements in this subpart.

19. A new § 600.510-93 is added to subpart F, to read as follows:

**§ 600.510-93 Calculation of average fuel economy.**

(a) Average fuel economy will be calculated to the nearest 0.1 mpg for the classes of automobiles identified herein, and the results of such calculations will be reported to the Secretary of Transportation for use in determining compliance with the applicable fuel economy standards.

(1) An average fuel economy calculation will be made for the category of passenger automobiles that is domestically manufactured as defined in § 600.511(d)(1).

(2) An average fuel economy calculation will be made for the category of passenger automobiles that is not domestically manufactured as defined in § 600.511(d)(2).

(3) An average fuel economy calculation will be made for the category of light trucks which is defined in § 600.511(e)(1) and has two-wheel drive.

(4) An average fuel economy calculation will be made for the category of light trucks which is defined

in § 600.511(e)(1) and has four-wheel drive.

(5) An average fuel economy calculation will be made for the category of light trucks which is defined in § 600.511(e)(2) and has two-wheel drive.

(6) An average fuel economy calculation will be made for the category of light trucks which is defined in § 600.511(e)(2) and has four-wheel drive.

(b) For the purpose of calculating average fuel economy under paragraph (c) of this section:

(1) All fuel economy data submitted in accordance with § 600.006(e) or § 600.502(c) shall be used.

(2) The combined city/highway fuel economy will be calculated for each model type in accordance with § 600.207 of this section except that:

(i) Separate fuel economy values will be calculated for model types and base levels associated with car lines that are:

(A) Domestically produced, and  
(B) Nondomestically produced and imported;

(ii) Total model year production data, as required by this subpart, will be used instead of sales projections;

(iii) The fuel economy value of diesel-powered model types will be multiplied by the factor 1.0 to correct gallons of diesel fuel to equivalent gallons of gasoline;

(iv) The fuel economy value will be rounded to the nearest 0.1 mpg;

(v) At the manufacturer's option, those vehicle configurations that are selfcompensating to altitude changes may be separated by sales into high-altitude sales categories and low-altitude sales categories. These separate sales categories may then be treated (only for the purpose of this section) as separate configurations in accordance with the procedure of paragraph § 600.207(a)(4)(ii), and

(3) The fuel economy value for each vehicle configuration is the combined fuel economy calculated according to § 600.206 except that:

(i) Separate fuel economy values will be calculated for vehicle configurations associated with car lines that are:

(A) Domestically produced, and  
(B) Nondomestically produced and imported;

(ii) Total model year production data, as required by this subpart will be used instead of sales projections; and

(iii) The fuel economy value of diesel-powered model types will be multiplied by the factor 1.0 to convert gallons of diesel fuel to equivalent gallons of gasoline.

(c) Except as permitted in paragraph (d) of this section, the average fuel

economy will be calculated individually for each category identified in § 600.510(a) as follows:

(1) Divide the total production volume of that category of automobiles by

(2) A sum of terms, each of which corresponds to a model type within that category of automobiles and is a fraction determined by dividing

(i) The number of automobiles of that model type produced by the manufacturer in the model year by:

(ii) For gasoline-fueled and diesel-fueled model types, the fuel economy calculated for that model type in accordance with paragraph (b)(2) of this section, and

(iii) For alcohol-fueled model types, the fuel economy value calculated for that model type in accordance with paragraph (b)(2) of this section divided by 0.15 and rounded to the nearest 0.1 mpg, and

(iv) For natural gas-fueled model types, the fuel economy value calculated for that model type in accordance with (b)(2) of this section divided by 0.15 and rounded to the nearest 0.1 mpg, and

(v) For alcohol dual fuel model types, for model years 1993 through 2004, the harmonic average of the following two terms; the result rounded to the nearest 0.1 mpg:

(A) The combined model type fuel economy value for operation on gasoline or diesel fuel as determined in § 600.207(b)(5)(i), and

(B) The combined model type fuel economy value for operation on alcohol fuel as determined in § 600.207(b)(5)(ii) divided by 0.15 provided the requirements of § 600.510(g) are met, and

(vi) For natural gas dual fuel model types, for model years 1993 through 2004, the harmonic average of the following two terms; the result rounded to the nearest 0.1 mpg:

(A) The combined model type fuel economy value for operation on gasoline or diesel as determined in § 600.207(b)(5)(i), and

(B) The combined model type fuel economy value for operation on natural gas as determined in § 600.207(b)(5)(ii) divided by 0.15 provided the requirements of § 600.510(g) are met.

(d) The Administrator may approve alternative calculation methods if they are part of an approved credit plan under the provisions of section 503(b) of U.S.C. 2003(b).

(e) For passenger categories identified in paragraphs (a) (1) and (2) of this section, the average fuel economy calculated in accordance with paragraph (c) of this section shall be adjusted using the following equation:



$$AFE_{adj} = AFE[(0.55 \times a \times c) + (0.45 \times c) + (0.5556 \times a) + 0.4487] / [(0.55 \times a) + 0.45] + IW$$

Where:

$AFE_{adj}$  = Adjusted average combined fuel economy, rounded to the nearest 0.1 mpg.

$AFE$  = Average combined fuel economy as calculated in paragraph (c) of this section, rounded to the nearest 0.0001 mpg.

$a$  = Sales-weight average (rounded to the nearest 0.0001 mpg) of all model type highway fuel economy values (rounded to the nearest 0.1 mpg) divided by the sales-weighted average (rounded to the nearest 0.0001 mpg) of all model type city fuel economy values (rounded to the nearest 0.1 mpg). The quotient shall be rounded to 4 decimal places. These average fuel economies shall be determined using the methodology of paragraph (c) of this section.

$c$  = 0.0022 for the 1988 model year.

$c$  = A constant value, fixed by model year.

For 1987, the Administrator will specify the  $c$  value after the necessary laboratory humidity and test fuel data become available. For 1988 and later model years, the Administrator will specify the  $c$  value after the necessary laboratory humidity and test fuel data become available.

$$IW = (9.2917 \times 10^{-3} \times SF_{3\text{ IWC}} \times FE_{3\text{ IWC}} - (3.5123 \times 10^{-3} \times SF_{4\text{ ETW}} \times FE_{4\text{ IWC}}))$$

Note: Any calculated value of  $IW$  less than zero shall be set equal to zero.

$SF_{3\text{ IWC}}$  = The 3000 lb. inertia weight class sales divided by total sales. The quotient shall be rounded to 4 decimal places.

$SF_{4\text{ ETW}}$  = The 4000 lb. equivalent test weight category sales divided by total sales. The quotient shall be rounded to 4 decimal places.

$FE_{3\text{ IWC}}$  = The sales-weighted average combined fuel economy of all 3000 lb. inertia weight class base levels in the compliance category. Round the result to the nearest 0.0001 mpg.

$FE_{4\text{ IWC}}$  = The sales-weighted average combined fuel economy of all 4000 lb. inertia weight class base levels in the compliance category. Round the result to the nearest 0.0001 mpg.

(f) The Administrator shall calculate and apply additional average fuel economy adjustments if, after notice and opportunity for comment, the Administrator determines that, as a result of test procedure changes not previously considered, such correction is necessary to yield fuel economy test results that are comparable to those obtained under the 1975 test procedures. In making such determinations, the Administrator must find that:

(1) A directional change in measured fuel economy of an average vehicle can be predicted from a revision to the test procedures;

(2) The magnitude of the change in measured fuel economy for any vehicle or fleet of vehicles caused by a revision to the test procedures is quantifiable

from theoretical calculations or best available test data;

(3) The impact of a change on average fuel economy is not due to eliminating the ability of manufacturers to take advantage of flexibility within the existing test procedures to gain measured improvements in fuel economy which are not the result of actual improvements in the fuel economy of production vehicles.

(4) The impact of a change on average fuel economy is not solely due to a greater ability of manufacturers to reflect in average fuel economy those design changes expected to have comparable effects on in-use fuel economy.

(5) The test procedure change is required by EPA or is a change initiated by EPA in its laboratory and is not a change implemented solely by a manufacturer in its own laboratory.

(g)(1) *Alcohol dual fuel automobiles and natural gas dual fuel automobiles* must provide equal or greater energy efficiency while operating on alcohol or natural gas as while operating on gasoline or diesel fuel. The following equation must hold true:

$$E_{alt}/E_{pet} > 1$$

where:

$E_{alt}$  =  $[FE_{alt}/(NHV_{alt} \times D_{alt})] \times 10^6$  = energy efficiency while operating on alternative fuel rounded to the nearest 0.01 miles/million BTU.

$E_{pet}$  =  $[FE_{pet}/(NHV_{pet} \times D_{pet})] \times 10^6$  = energy efficiency while operating on gasoline or diesel (petroleum) fuel rounded to the nearest 0.01 miles/million BTU.

$FE_{alt}$  is the fuel economy [miles/gallon for liquid fuels or miles/100 cubic feet for gaseous fuels] while operated on the alternative fuel as determined in § 600.113;

$FE_{pet}$  is the fuel economy [miles/gallon] while operated on petroleum fuel (gasoline or diesel) as determined in § 600.113;

$NHV_{alt}$  is the net (lower) heating value [BTU/lb] of the alternative fuel;

$NHV_{pet}$  is the net (lower) heating value [BTU/lb] of the petroleum fuel;

$D_{alt}$  is the density [lb/gallon for liquid fuels or lb/100 cubic feet for gaseous fuels] of the alternative fuel;

$D_{pet}$  is the density [lb/gallon] or petroleum fuel.

(i) The equation must hold true for both the city and highway fuel economy values for each test of each test vehicle.

(ii)(A) Manufacturers shall submit to the Administrator the net heating values and densities of the alcohol, natural gas, and diesel fuels. Manufacturers shall support these values by fuel property test data submitted by the fuel supplier or by the automobile manufacturer.

(B) Upon reviewing the values submitted by the manufacturer, the

Administrator shall determine the net heating values and densities of the alcohol, natural gas, and diesel fuels.

(iii) The net heating value and density of gasoline are to be determined by the manufacturer in accordance with § 600.113(c).

(2) For model years 1993 through 1995, alcohol dual fuel automobiles designed to operate on mixtures of alcohol and gasoline must, in addition to paragraph (g) (1) and (2) of this section, provide equal or superior energy efficiency while operating on a mixture of 50% alcohol, 50% gasoline by volume, as while operating on gasoline fuel. The following equation must hold true:

$$E_{50}/E_g > 1$$

where:

$E_{50}$  =  $[FE_{50}/(NHV_{50} \times D_{50})] \times 10^6$  = energy efficiency while operating on 50% alcohol, 50% gasoline rounded to the nearest 0.01 miles/million BTU.

$E_g$  =  $[FE_g/(NHV_g \times D_g)] \times 10^6$  = energy efficiency while operating on gasoline rounded to the nearest 0.01 miles/million BTU.

$FE_{50}$  is the fuel economy [miles/gallon] while operated on 50% alcohol, 50% gasoline as determined in § 600.113;

$FE_g$  is the fuel economy [miles/gallon] while operated on gasoline as determined in § 600.113;

$NHV_{50}$  is the net (lower) heating value [BTU/lb] of the 50/50 blend;

$NHV_g$  is the net (lower) heating value [BTU/lb] of gasoline;

$D_{50}$  is the density [lb/gallon] of the 50/50 blend;

$D_g$  is the density [lb/gallon] of the gasoline.

(i) The equation must hold true for both the city and highway fuel economy values for each test of each test vehicle.

(ii)(A) Manufacturers shall submit to the Administrator the net heating values and densities of the alcohol and 50/50 alcohol/gasoline blend. Manufacturers shall support these values by fuel property test data submitted by the fuel supplier or by the automobile manufacturer.

(B) Upon reviewing the values submitted by the manufacturer, the Administrator shall determine the net heating values and densities of the alcohol and 50/50 alcohol/gasoline blend.

(h) For each of the model years 1993 through 2004, and for each category of automobile identified in § 600.510(a), the maximum increase in average fuel economy determined in § 600.510(c) attributable to alcohol dual fuel automobiles and natural gas dual fuel automobiles shall be 1.2 miles per gallon or as provided for in paragraph (i) of this section.

(1) The Administrator shall calculate the increase in average fuel economy to



determine if the maximum increase provided in paragraph (h) of this section has been reached. The Administrator shall calculate the average fuel economy for each category of automobiles specified in § 600.510(a) by subtracting the average fuel economy values calculated in accordance with § 600.510 by assuming all alcohol dual fuel and natural gas dual fuel automobiles are operated exclusively on gasoline (or

diesel) fuel from the average fuel economy values determined in § 600.510(b)(2)(vi), (vii), and paragraph (c). The difference is limited to the maximum increase specified in paragraph (h) of this section.

(i) In the event that the Secretary of Transportation lowers the corporate average fuel economy standard applicable to passenger automobiles below 27.5 miles per gallon for any

model year during 1993 through 2004, the maximum increase of 1.2 mpg per year specified in paragraph (h) shall be reduced by the amount the standard was lowered, but not reduced below 0.7 mpg per year.

20. Appendix VIII to part 600 is revised to read as follows:

BILLING CODE 6560-50-M

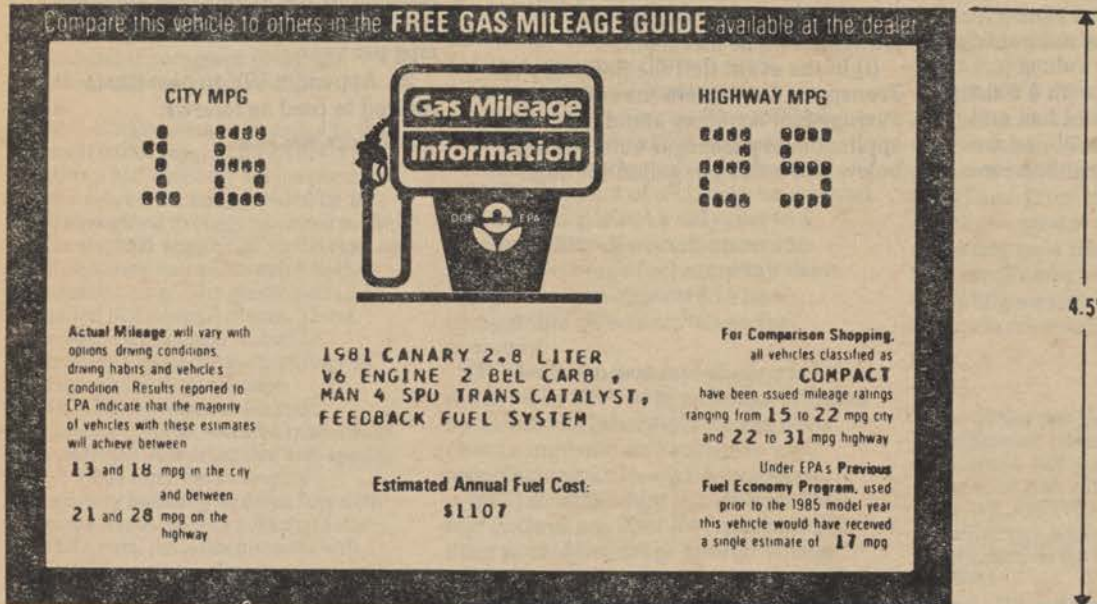
A. Gasoline-fueled vehicle fuel economy label.



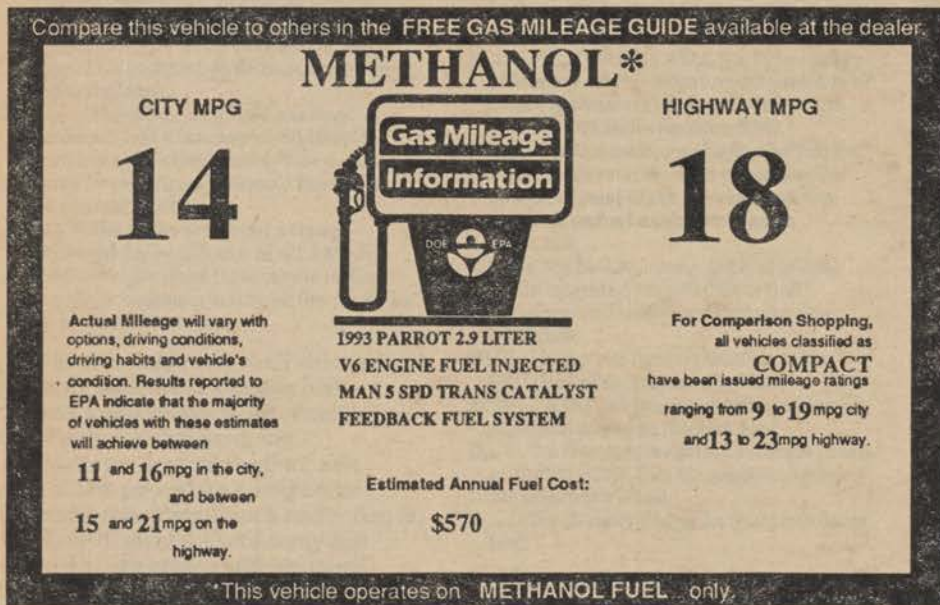
B. Methanol-fueled vehicle fuel economy label.



## APPENDIX VIII



a. Gasoline-fueled vehicle fuel economy label.



b. Methanol-fueled vehicle fuel economy label.



Compare this vehicle to others in the **FREE GAS MILEAGE GUIDE** available at the dealer.

## NATURAL GAS\*

CITY MPG

**22**

Actual Mileage will vary with options, driving conditions, driving habits and vehicle's condition. Results reported to EPA indicate that the majority of vehicles with these estimates will achieve between

19 and 25 mpg in the city,  
and between  
25 and 33 mpg on the  
highway



1993 SPARROW 2.4 LITER  
I4 ENGINE FUEL INJECTED  
AUTO 3 SPD TRANS CATALYST  
FEEDBACK FUEL SYSTEM

Estimated Annual Fuel Cost:  
**\$608**

HIGHWAY MPG

**29**

For Comparison Shopping,  
all vehicles classified as  
**COMPACT**  
have been issued mileage ratings

ranging from 18 to 30 mpg city  
and 24 to 36 mpg highway

All fuel economy values on this label pertain to gasoline equivalent fuel economy. To convert these values into units of miles per 100 cubic feet of natural gas, multiply by 0.823.

\*This vehicle operates on NATURAL GAS FUEL only.

c. Natural gas-fueled vehicle fuel economy label.

Compare this vehicle to others in the **FREE GAS MILEAGE GUIDE** available at the dealer.

## DUAL FUEL\*

CITY MPG

**24**

Actual Mileage will vary with options, driving conditions, driving habits and vehicle's condition. Results reported to EPA indicate that the majority of vehicles with these estimates will achieve between

20 and 28 mpg in the city,  
and between  
25 and 35 mpg on the  
highway



1993 FINCH 2.0 LITER  
I4 ENGINE FUEL INJECTED  
AUTO 3 SPD TRANS CATALYST  
FEEDBACK FUEL SYSTEM

Estimated Annual Fuel Cost:  
**\$590**

HIGHWAY MPG

**30**

For Comparison Shopping,  
all vehicles classified as  
**COMPACT**  
have been issued mileage ratings

ranging from 18 to 30 mpg city  
and 24 to 36 mpg highway.

All fuel economy values on this label pertain to GASOLINE fuel usage. NATURAL GAS fuel usage will yield different values. See the Gas Mileage Guide for information on NATURAL GAS.

\*This dual fuel vehicle operates on NATURAL GAS or GASOLINE.

d. Dual fuel vehicle fuel economy label.

-111-