

ADDENDUM -- TABLE OF CONTENTS

<u>Title</u>	<u>Page #</u>
<u>Statutory Provisions (Clean Air Act)</u>	
Section 107, 42 U.S.C. § 7407	ADD-1
Section 108, 42 U.S.C. § 7408	ADD-9
Section 109, 42 U.S.C. § 7409	ADD-14
Section 110, 42 U.S.C. § 7410	ADD-17
Section 307, 42 U.S.C. § 7607	ADD-33
 <u>Regulatory Provisions</u>	
40 C.F.R. § 50.15	ADD-41
40 C.F.R. § 50, Appendix P	ADD-42
40 C.F.R. § 58, Appendix G	ADD-45
73 Fed. Reg. at 16,511-14 (Mar. 27, 2008)	ADD-49
 <u>Legislative History</u>	
S. Rep. No. 91-1196, 91 st Cong., 2d Sess. (1970) (excerpts)	ADD-53
H.R. Rep. No. 95-294, 95 th Cong., 1 st Sess. (1977) (excerpts)	ADD-57

by Pub.L. 101-549, except as otherwise provided for, see section 711(a) of Pub.L. 101-549, set out as a note under section 7401 of this title.

Prior Provisions

A prior section 106 of Act July 14, 1955, was renumbered section 117 by Pub.L. 91-604 and is set out as section 7417 of this title.

LIBRARY REFERENCES

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Environmental Law Ⓒ258.
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Encyclopedias

2 Am. Jur. 2d Administrative Law § 128.
 7A Am. Jur. 2d Automobiles and Highway Traffic § 16.
 18 Am. Jur. 2d Corporations §§ 74, 79.
 59 Am. Jur. 2d Parties § 40.
 61B Am. Jur. 2d Pollution Control §§ 103, 680.
 61C Am. Jur. 2d Pollution Control §§ 1671, 1967, 2035.

Forms

9 Fed. Proc. Forms L Ed Environmental Protection §§ 29:1, 29:86, 29:87, 29:91, 29:92, 29:94, 29:98, 29:99, 29:102 to 29:104.
 15 Fed. Proc. Forms L Ed Statutes of Limitations and Other Time Limits § 61:1.

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Business and Commercial Litigation in Federal Courts § 80.8 (Robert L. Haig ed.) (West Group & ABA 1998).
 2 Fed. Proc. L Ed Administrative Procedure § 2:33.
 7 Fed. Proc. L Ed Consumer Product Safety §§ 16:6, 16:82.
 11 Fed. Proc. L Ed Environmental Protection §§ 32:236, 32:384, 32:388, 32:628, 32:745, 32:748, 32:764.

WESTLAW ELECTRONIC RESEARCH

See WESTLAW guide following the Explanation pages of this volume.

§ 7407. Air quality control regions

(a) Responsibility of each State for air quality; submission of implementation plan

Each State shall have the primary responsibility for assuring air quality within the entire geographic area comprising such State by submitting an implementation plan for such State which will specify the manner in which national primary and secondary ambient air quality standards will be achieved and maintained within each air quality control region in such State.

(b) Designated regions

For purposes of developing and carrying out implementation plans under section 7410 of this title—

- (1) an air quality control region designated under this section before December 31, 1970, or a region designated after such date

under subsection (c) of this section, shall be an air quality control region; and

(2) the portion of such State which is not part of any such designated region shall be an air quality control region, but such portion may be subdivided by the State into two or more air quality control regions with the approval of the Administrator.

(c) Authority of Administrator to designate regions; notification of Governors of affected States

The Administrator shall, within 90 days after December 31, 1970, after consultation with appropriate State and local authorities, designate as an air quality control region any interstate area or major intrastate area which he deems necessary or appropriate for the attainment and maintenance of ambient air quality standards. The Administrator shall immediately notify the Governors of the affected States of any designation made under this subsection.

(d) Designations

(1) Designations generally

(A) Submission by Governors of initial designations following promulgation of new or revised standards

By such date as the Administrator may reasonably require, but not later than 1 year after promulgation of a new or revised national ambient air quality standard for any pollutant under section 7409 of this title, the Governor of each State shall (and at any other time the Governor of a State deems appropriate the Governor may) submit to the Administrator a list of all areas (or portions thereof) in the State, designating as—

(i) nonattainment, any area that does not meet (or that contributes to ambient air quality in a nearby area that does not meet) the national primary or secondary ambient air quality standard for the pollutant,

(ii) attainment, any area (other than an area identified in clause (i)) that meets the national primary or secondary ambient air quality standard for the pollutant, or

(iii) unclassifiable, any area that cannot be classified on the basis of available information as meeting or not meeting the national primary or secondary ambient air quality standard for the pollutant.

The Administrator may not require the Governor to submit the required list sooner than 120 days after promulgating a new or revised national ambient air quality standard.

(B) Promulgation by EPA of designations

(i) Upon promulgation or revision of a national ambient air quality standard, the Administrator shall promulgate the designations of all areas (or portions thereof) submitted under subparagraph (A) as expeditiously as practicable, but in no case later than 2 years from the date of promulgation of the new or revised national ambient air quality standard. Such period may be extended for up to one year in the event the Administrator has insufficient information to promulgate the designations.

(ii) In making the promulgations required under clause (i), the Administrator may make such modifications as the Administrator deems necessary to the designations of the areas (or portions thereof) submitted under subparagraph (A) (including to the boundaries of such areas or portions thereof). Whenever the Administrator intends to make a modification, the Administrator shall notify the State and provide such State with an opportunity to demonstrate why any proposed modification is inappropriate. The Administrator shall give such notification no later than 120 days before the date the Administrator promulgates the designation, including any modification thereto. If the Governor fails to submit the list in whole or in part, as required under subparagraph (A), the Administrator shall promulgate the designation that the Administrator deems appropriate for any area (or portion thereof) not designated by the State.

(iii) If the Governor of any State, on the Governor's own motion, under subparagraph (A), submits a list of areas (or portions thereof) in the State designated as nonattainment, attainment, or unclassifiable, the Administrator shall act on such designations in accordance with the procedures under paragraph (3) (relating to redesignation).

(iv) A designation for an area (or portion thereof) made pursuant to this subsection shall remain in effect until the area (or portion thereof) is redesignated pursuant to paragraph (3) or (4).

(C) Designations by operation of law

(i) Any area designated with respect to any air pollutant under the provisions of paragraph (1)(A), (B), or (C) of this subsection (as in effect immediately before November 15, 1990) is designated, by operation of law, as a nonattainment area for such pollutant within the meaning of subparagraph (A)(i).

(ii) Any area designated with respect to any air pollutant under the provisions of paragraph (1)(E) (as in effect immediately before November 15, 1990) is designated by operation of law, as an attainment area for such pollutant within the meaning of subparagraph (A)(ii).

(iii) Any area designated with respect to any air pollutant under the provisions of paragraph (1)(D) (as in effect immediately before November 15, 1990) is designated, by operation of law, as an unclassifiable area for such pollutant within the meaning of subparagraph (A)(iii).

(2) Publication of designations and redesignations

(A) The Administrator shall publish a notice in the Federal Register promulgating any designation under paragraph (1) or (5), or announcing any designation under paragraph (4), or promulgating any redesignation under paragraph (3).

(B) Promulgation or announcement of a designation under paragraph (1), (4) or (5) shall not be subject to the provisions of sections 553 through 557 of Title 5 (relating to notice and comment), except nothing herein shall be construed as precluding such public notice and comment whenever possible.

(3) Redesignation

(A) Subject to the requirements of subparagraph (E), and on the basis of air quality data, planning and control considerations, or any other air quality-related considerations the Administrator deems appropriate, the Administrator may at any time notify the Governor of any State that available information indicates that the designation of any area or portion of an area within the State or interstate area should be revised. In issuing such notification, which shall be public, to the Governor, the Administrator shall provide such information as the Administrator may have available explaining the basis for the notice.

(B) No later than 120 days after receiving a notification under subparagraph (A), the Governor shall submit to the Administrator such redesignation, if any, of the appropriate area (or areas) or portion thereof within the State or interstate area, as the Governor considers appropriate.

(C) No later than 120 days after the date described in subparagraph (B) (or paragraph (1)(B)(iii)), the Administrator shall promulgate the redesignation, if any, of the area or portion thereof, submitted by the Governor in accordance with subparagraph (B), making such modifications as the Administrator may deem necessary, in the same manner and under the same procedure as is applicable under clause (ii) of paragraph (1)(B), except that

the phrase "60 days" shall be substituted for the phrase "120 days" in that clause. If the Governor does not submit, in accordance with subparagraph (B), a redesignation for an area (or portion thereof) identified by the Administrator under subparagraph (A), the Administrator shall promulgate such redesignation, if any, that the Administrator deems appropriate.

(D) The Governor of any State may, on the Governor's own motion, submit to the Administrator a revised designation of any area or portion thereof within the State. Within 18 months of receipt of a complete State redesignation submittal, the Administrator shall approve or deny such redesignation. The submission of a redesignation by a Governor shall not affect the effectiveness or enforceability of the applicable implementation plan for the State.

(E) The Administrator may not promulgate a redesignation of a nonattainment area (or portion thereof) to attainment unless—

(i) the Administrator determines that the area has attained the national ambient air quality standard;

(ii) the Administrator has fully approved the applicable implementation plan for the area under section 7410(k) of this title;

(iii) the Administrator determines that the improvement in air quality is due to permanent and enforceable reductions in emissions resulting from implementation of the applicable implementation plan and applicable Federal air pollutant control regulations and other permanent and enforceable reductions;

(iv) the Administrator has fully approved a maintenance plan for the area as meeting the requirements of section 7505a of this title; and

(v) the State containing such area has met all requirements applicable to the area under section 7410 of this title and part D of this subchapter.

(F) The Administrator shall not promulgate any redesignation of any area (or portion thereof) from nonattainment to unclassifiable.

(4) Nonattainment designations for ozone, carbon monoxide and particulate matter (PM-10)

(A) Ozone and carbon monoxide

(i) Within 120 days after November 15, 1990, each Governor of each State shall submit to the Administrator a list that designates, affirms or reaffirms the designation of, or redesignates (as the case may be), all areas (or portions thereof) of

the Governor's State as attainment, nonattainment, or unclassifiable with respect to the national ambient air quality standards for ozone and carbon monoxide.

(ii) No later than 120 days after the date the Governor is required to submit the list of areas (or portions thereof) required under clause (i) of this subparagraph, the Administrator shall promulgate such designations, making such modifications as the Administrator may deem necessary, in the same manner, and under the same procedure, as is applicable under clause (ii) of paragraph (1)(B), except that the phrase "60 days" shall be substituted for the phrase "120 days" in that clause. If the Governor does not submit, in accordance with clause (i) of this subparagraph, a designation for an area (or portion thereof), the Administrator shall promulgate the designation that the Administrator deems appropriate.

(iii) No nonattainment area may be redesignated as an attainment area under this subparagraph.

(iv) Notwithstanding paragraph (1)(C)(ii) of this subsection, if an ozone or carbon monoxide nonattainment area located within a metropolitan statistical area or consolidated metropolitan statistical area (as established by the Bureau of the Census) is classified under part D of this subchapter as a Serious, Severe, or Extreme Area, the boundaries of such area are hereby revised (on the date 45 days after such classification) by operation of law to include the entire metropolitan statistical area or consolidated metropolitan statistical area, as the case may be, unless within such 45-day period the Governor (in consultation with State and local air pollution control agencies) notifies the Administrator that additional time is necessary to evaluate the application of clause (v). Whenever a Governor has submitted such a notice to the Administrator, such boundary revision shall occur on the later of the date 8 months after such classification or 14 months after November 15, 1990, unless the Governor makes the finding referred to in clause (v), and the Administrator concurs in such finding, within such period. Except as otherwise provided in this paragraph, a boundary revision under this clause or clause (v) shall apply for purposes of any State implementation plan revision required to be submitted after November 15, 1990.

(v) Whenever the Governor of a State has submitted a notice under clause (iv), the Governor, in consultation with State and local air pollution control agencies, shall undertake a study to evaluate whether the entire metropolitan

statistical area or consolidated metropolitan statistical area should be included within the nonattainment area. Whenever a Governor finds and demonstrates to the satisfaction of the Administrator, and the Administrator concurs in such finding, that with respect to a portion of a metropolitan statistical area or consolidated metropolitan statistical area, sources in the portion do not contribute significantly to violation of the national ambient air quality standard, the Administrator shall approve the Governor's request to exclude such portion from the nonattainment area. In making such finding, the Governor and the Administrator shall consider factors such as population density, traffic congestion, commercial development, industrial development, meteorological conditions, and pollution transport.

(B) PM-10 designations

By operation of law, until redesignation by the Administrator pursuant to paragraph (3)—

(i) each area identified in 52 Federal Register 29383 (Aug. 7, 1987) as a Group I area (except to the extent that such identification was modified by the Administrator before November 15, 1990) is designated nonattainment for PM-10;

(ii) any area containing a site for which air quality monitoring data show a violation of the national ambient air quality standard for PM-10 before January 1, 1989 (as determined under part 50, appendix K of title 40 of the Code of Federal Regulations) is hereby designated nonattainment for PM-10; and

(iii) each area not described in clause (i) or (ii) is hereby designated unclassifiable for PM-10.

Any designation for particulate matter (measured in terms of total suspended particulates) that the Administrator promulgated pursuant to this subsection (as in effect immediately before November 15, 1990) shall remain in effect for purposes of implementing the maximum allowable increases in concentrations of particulate matter (measured in terms of total suspended particulates) pursuant to section 7473(b) of this title, until the Administrator determines that such designation is no longer necessary for that purpose.

(5) Designations for lead

The Administrator may, in the Administrator's discretion at any time the Administrator deems appropriate, require a State to designate areas (or portions thereof) with respect to the national

ambient air quality standard for lead in effect as of November 15, 1990, in accordance with the procedures under subparagraphs (A) and (B) of paragraph (1), except that in applying subparagraph (B)(i) of paragraph (1) the phrase "2 years from the date of promulgation of the new or revised national ambient air quality standard" shall be replaced by the phrase "1 year from the date the Administrator notifies the State of the requirement to designate areas with respect to the standard for lead".

(e) Redesignation of air quality control regions

(1) Except as otherwise provided in paragraph (2), the Governor of each State is authorized, with the approval of the Administrator, to redesignate from time to time the air quality control regions within such State for purposes of efficient and effective air quality management. Upon such redesignation, the list under subsection (d) of this section shall be modified accordingly.

(2) In the case of an air quality control region in a State, or part of such region, which the Administrator finds may significantly affect air pollution concentrations in another State, the Governor of the State in which such region, or part of a region, is located may redesignate from time to time the boundaries of so much of such air quality control region as is located within such State only with the approval of the Administrator and with the consent of all Governors of all States which the Administrator determines may be significantly affected.

(3) No compliance date extension granted under section 7413(d)(5) of this title (relating to coal conversion) shall cease to be effective by reason of the regional limitation provided in section 7413(d)(5) of this title if the violation of such limitation is due solely to a redesignation of a region under this subsection.

(July 14, 1955, c. 360, Title I, § 107, as added Dec. 31, 1970, Pub.L. 91-604, § 4(a), 84 Stat. 1678, and amended Aug. 7, 1977, Pub.L. 95-95, Title I, § 103, 91 Stat. 687; Nov. 15, 1990, Pub.L. 101-549, Title I, § 101(a), 104 Stat. 2399.)

HISTORICAL AND STATUTORY NOTES

Revision Notes and Legislative Reports

1970 Acts. House Report No. 91-1146 and Conference Report No. 91-1783, see 1970 U.S. Code Cong. and Adm. News, p. 5356.

1977 Acts. House Report No. 95-294 and House Conference Report No. 95-564, see 1977 U.S. Code Cong. and Adm. News, p. 1077.

1990 Acts. Senate Report No. 101-228, House Conference Report No. 101-952,

and Statement by President, see 1990 U.S. Code Cong. and Adm. News, p. 3385.

References in Text

Section 7413 of this title, referred to in subsec. (e)(3), was amended generally by Pub.L. 101-549, Title VII, § 701, Nov. 15, 1990, 104 Stat. 2672, and, as so amended, subsec. (d) of section 7413 no longer relates to final compliance orders.

14. Reasons for designations

Failure of the Agency to give a timely rationale for designation of part of one county as a "nonattainment" area under this chapter could not be cured by any participation by electric utility in separate, future rule-making procedure, as past Agency caprice may not be remedied by a promise of future Agency fairness. *Columbus and Southern Ohio Elec. Co. v. Costle*, C.A.6 1980, 638 F.2d 910. *Environmental Law* ¶ 293

15. Moot questions

Arizona's challenge to Environmental Protection Agency's disapproval of its carbon monoxide implementation plan revisions for attaining national ambient air quality standards, which was based on state's claim that only 900 square miles rather than 2,000 square miles as claimed by EPA was nonattainment area, was ren-

dered moot when EPA redesignated 1,100 square miles as attainment. *State of Ariz. v. Thomas*, C.A.9 1987, 824 F.2d 745. *Environmental Law* ¶ 663

It could not be determined that judicial review of redesignation of county as a nonattainment area under this chapter rather than "unclassifiable" was moot by reason of modification of the designation, five days before oral argument, from "nonattainment" to "attainment or unclassifiable" where there was no record from which it would be possible for court of appeals to decide whether further reclassification of county to nonattainment status was imminent, and question of mootness should be considered by the Agency on remand. *City of Waco v. E.P.A.*, C.A.5 1980, 620 F.2d 84. *Federal Courts* ¶ 13.25

§ 7408. Air quality criteria and control techniques**(a) Air pollutant list; publication and revision by Administrator; issuance of air quality criteria for air pollutants**

(1) For the purpose of establishing national primary and secondary ambient air quality standards, the Administrator shall within 30 days after December 31, 1970, publish, and shall from time to time thereafter revise, a list which includes each air pollutant—

(A) emissions of which, in his judgment, cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare;

(B) the presence of which in the ambient air results from numerous or diverse mobile or stationary sources; and

(C) for which air quality criteria had not been issued before December 31, 1970, but for which he plans to issue air quality criteria under this section.

(2) The Administrator shall issue air quality criteria for an air pollutant within 12 months after he has included such pollutant in a list under paragraph (1). Air quality criteria for an air pollutant shall accurately reflect the latest scientific knowledge useful in indicating the kind and extent of all identifiable effects on public health or welfare which may be expected from the presence of such pollutant in the ambient air, in varying quantities. The criteria for an air pollutant, to the extent practicable, shall include information on—

(A) those variable factors (including atmospheric conditions) which of themselves or in combination with other factors may alter the effects on public health or welfare of such air pollutant;

(B) the types of air pollutants which, when present in the atmosphere, may interact with such pollutant to produce an adverse effect on public health or welfare; and

(C) any known or anticipated adverse effects on welfare.

(b) Issuance by Administrator of information on air pollution control techniques; standing consulting committees for air pollutants; establishment; membership

(1) Simultaneously with the issuance of criteria under subsection (a) of this section, the Administrator shall, after consultation with appropriate advisory committees and Federal departments and agencies, issue to the States and appropriate air pollution control agencies information on air pollution control techniques, which information shall include data relating to the cost of installation and operation, energy requirements, emission reduction benefits, and environmental impact of the emission control technology. Such information shall include such data as are available on available technology and alternative methods of prevention and control of air pollution. Such information shall also include data on alternative fuels, processes, and operating methods which will result in elimination or significant reduction of emissions.

(2) In order to assist in the development of information on pollution control techniques, the Administrator may establish a standing consulting committee for each air pollutant included in a list published pursuant to subsection (a)(1) of this section, which shall be comprised of technically qualified individuals representative of State and local governments, industry, and the academic community. Each such committee shall submit, as appropriate, to the Administrator information related to that required by paragraph (1).

(c) Review, modification, and reissuance of criteria or information

The Administrator shall from time to time review, and, as appropriate, modify, and reissue any criteria or information on control techniques issued pursuant to this section. Not later than six months after August 7, 1977, the Administrator shall revise and reissue criteria relating to concentrations of NO₂ over such period (not more than three hours) as he deems appropriate. Such criteria shall include a discussion of nitric and nitrous acids, nitrites, nitrates, nitrosamines, and other carcinogenic and potentially carcinogenic derivatives of oxides of nitrogen.

(d) Publication in Federal Register; availability of copies for general public

The issuance of air quality criteria and information on air pollution control techniques shall be announced in the Federal Register and copies shall be made available to the general public.

(e) Transportation planning and guidelines

The Administrator shall, after consultation with the Secretary of Transportation, and after providing public notice and opportunity for comment, and with State and local officials, within nine months after November 15, 1990, and periodically thereafter as necessary to maintain a continuous transportation-air quality planning process, update the June 1978 Transportation-Air Quality Planning Guidelines and publish guidance on the development and implementation of transportation and other measures necessary to demonstrate and maintain attainment of national ambient air quality standards. Such guidelines shall include information on—

- (1) methods to identify and evaluate alternative planning and control activities;
- (2) methods of reviewing plans on a regular basis as conditions change or new information is presented;
- (3) identification of funds and other resources necessary to implement the plan, including interagency agreements on providing such funds and resources;
- (4) methods to assure participation by the public in all phases of the planning process; and
- (5) such other methods as the Administrator determines necessary to carry out a continuous planning process.

(f) Information regarding processes, procedures, and methods to reduce or control pollutants in transportation; reduction of mobile source related pollutants; reduction of impact on public health

(1) The Administrator shall publish and make available to appropriate Federal, State, and local environmental and transportation agencies not later than one year after November 15, 1990, and from time to time thereafter—

(A) information prepared, as appropriate, in consultation with the Secretary of Transportation, and after providing public notice and opportunity for comment, regarding the formulation and emission reduction potential of transportation control measures related to criteria pollutants and their precursors, including, but not limited to—

- (i) programs for improved public transit;
- (ii) restriction of certain roads or lanes to, or construction of such roads or lanes for use by, passenger buses or high occupancy vehicles;
- (iii) employer-based transportation management plans, including incentives;
- (iv) trip-reduction ordinances;

(v) traffic flow improvement programs that achieve emission reductions;

(vi) fringe and transportation corridor parking facilities serving multiple occupancy vehicle programs or transit service;

(vii) programs to limit or restrict vehicle use in downtown areas or other areas of emission concentration particularly during periods of peak use;

(viii) programs for the provision of all forms of high-occupancy, shared-ride services;

(ix) programs to limit portions of road surfaces or certain sections of the metropolitan area to the use of non-motorized vehicles or pedestrian use, both as to time and place;

(x) programs for secure bicycle storage facilities and other facilities, including bicycle lanes, for the convenience and protection of bicyclists, in both public and private areas;

(xi) programs to control extended idling of vehicles;

(xii) programs to reduce motor vehicle emissions, consistent with subchapter II of this chapter, which are caused by extreme cold start conditions;

(xiii) employer-sponsored programs to permit flexible work schedules;

(xiv) programs and ordinances to facilitate non-automobile travel, provision and utilization of mass transit, and to generally reduce the need for single-occupant vehicle travel, as part of transportation planning and development efforts of a locality, including programs and ordinances applicable to new shopping centers, special events, and other centers of vehicle activity;

(xv) programs for new construction and major reconstructions of paths, tracks or areas solely for the use by pedestrian or other non-motorized means of transportation when economically feasible and in the public interest. For purposes of this clause, the Administrator shall also consult with the Secretary of the Interior; and

(xvi) program to encourage the voluntary removal from use and the marketplace of pre-1980 model year light duty vehicles and pre-1980 model light duty trucks.

(B) information on additional methods or strategies that will contribute to the reduction of mobile source related pollutants during periods in which any primary ambient air quality standard will be exceeded and during episodes for which an air pollution alert, warning, or emergency has been declared;

(C) information on other measures which may be employed to reduce the impact on public health or protect the health of sensitive or susceptible individuals or groups; and

(D) information on the extent to which any process, procedure, or method to reduce or control such air pollutant may cause an increase in the emissions or formation of any other pollutant.

(2) In publishing such information the Administrator shall also include an assessment of—

(A) the relative effectiveness of such processes, procedures, and methods;

(B) the potential effect of such processes, procedures, and methods on transportation systems and the provision of transportation services; and

(C) the environmental, energy, and economic impact of such processes, procedures, and methods.

(g) Assessment of risks to ecosystems

The Administrator may assess the risks to ecosystems from exposure to criteria air pollutants (as identified by the Administrator in the Administrator's sole discretion).

(h) RACT/BACT/LAER clearinghouse

The Administrator shall make information regarding emission control technology available to the States and to the general public through a central database. Such information shall include all control technology information received pursuant to State plan provisions requiring permits for sources, including operating permits for existing sources.

(July 14, 1955, c. 360, Title I, § 108, as added Dec. 31, 1970, Pub.L. 91-604, § 4(a), 84 Stat. 1678, and amended Aug. 7, 1977, Pub.L. 95-95, Title I, §§ 104, 105, Title IV, § 401(a), 91 Stat. 689, 790; Nov. 15, 1990, Pub.L. 101-549, Title I, §§ 108(a) to (c), (o), 111, 104 Stat. 2465, 2466, 2469, 2470; Nov. 10, 1998, Pub.L. 105-362, Title XV, § 1501(b), 112 Stat. 3294.)

HISTORICAL AND STATUTORY NOTES

Revision Notes and Legislative Reports

1970 Acts. House Report No. 91-1146 and Conference Report No. 91-1783, see 1970 U.S. Code Cong. and Adm. News, p. 5356.

1977 Acts. House Report No. 95-294 and House Conference Report No. 95-564, see 1977 U.S. Code Cong. and Adm. News, p. 1077.

1990 Acts. Senate Report No. 101-228, House Conference Report No. 101-952,

and Statement by President, see 1990 U.S. Code Cong. and Adm. News, p. 3385.

Codifications

Section was formerly classified to section 1857c-3 of this title.

Reference in subsec. (e) in the original to "enactment of the Clean Air Act Amendments of 1989" has been codified as "November 15, 1990" as manifesting Congressional intent in the date of the

and thus new source review (NSR) was not required under the Clean Air Act (CAA), although refinery had allowed its operating permit to expire due to non-payment of fees, where refinery had allowed its permit to lapse with express understanding that air quality management district would reinstate the permit if refinery paid fees within one year, and refinery paid fee to reinstate its permit within that time. *Communities For a Better Environment v. Cenco Refining Co.*, C.D.Cal.2001, 179 F.Supp.2d 1128, affirmed 35 Fed.Appx. 508, 2002 WL 1000091. *Environmental Law* ⇨ 271

Environmental Protection Agency's (EPA) proposed schedule to review and revise national ambient air quality standards (NAAQS), including particulate matter (PM) criteria, based on latest scientific knowledge violated Clean Air Act's mandate for review at 5-year intervals and, thus, district court would impose revised timetable including review by independent scientific review committee (CASAC), excluding wholly discretionary review by Office of Budget Management, and reducing period of public comment to statutory minimum of 60 days. *American Lung Ass'n v. Browner*, D.Ariz.1994, 884 F.Supp. 345. *Environmental Law* ⇨ 255

Administrator did not abuse his discretion under this chapter in establishing time schedule for review and revision of sulfur dioxide criteria or in refusing to expedite schedule, despite coal company's claims that existing criteria no longer actively reflected latest scientific knowledge concerning sulfur dioxide and that enforcement of compliance deadline would cause company to suffer great economic loss because coal it mined had too high sulfur content to satisfy existing limitation without costly emission reduction equipment. *Consolidation Coal Co. v. Costle*, S.D.Ohio 1979, 483 F.Supp. 1003. *Environmental Law* ⇨ 280

5. Mandamus

Once Administrator determines that a pollutant has an adverse effect on public health or welfare and comes from one or more of the numerous or diverse mobile or stationary sources he has the duty to list such pollutant as a pollutant; such duty, which is related to the establishment of national primary and secondary ambient air quality standards, is enforceable by way of mandamus. *Natural Resources Defense Council, Inc. v. Train*, S.D.N.Y.1976, 411 F.Supp. 864, affirmed 545 F.2d 320. *Environmental Law* ⇨ 254; *Mandamus* ⇨ 99

§ 7409. National primary and secondary ambient air quality standards

(a) Promulgation

(1) The Administrator—

(A) within 30 days after December 31, 1970, shall publish proposed regulations prescribing a national primary ambient air quality standard and a national secondary ambient air quality standard for each air pollutant for which air quality criteria have been issued prior to such date; and

(B) after a reasonable time for interested persons to submit written comments thereon (but no later than 90 days after the initial publication of such proposed standards) shall by regulation promulgate such proposed national primary and secondary ambient air quality standards with such modifications as he deems appropriate.

(2) With respect to any air pollutant for which air quality criteria are issued after December 31, 1970, the Administrator shall publish, simultaneously with the issuance of such criteria and information,

proposed national primary and secondary ambient air quality standards for any such pollutant. The procedure provided for in paragraph (1)(B) of this subsection shall apply to the promulgation of such standards.

(b) Protection of public health and welfare

(1) National primary ambient air quality standards, prescribed under subsection (a) of this section shall be ambient air quality standards the attainment and maintenance of which in the judgment of the Administrator, based on such criteria and allowing an adequate margin of safety, are requisite to protect the public health. Such primary standards may be revised in the same manner as promulgated.

(2) Any national secondary ambient air quality standard prescribed under subsection (a) of this section shall specify a level of air quality the attainment and maintenance of which in the judgment of the Administrator, based on such criteria, is requisite to protect the public welfare from any known or anticipated adverse effects associated with the presence of such air pollutant in the ambient air. Such secondary standards may be revised in the same manner as promulgated.

(c) National primary ambient air quality standard for nitrogen dioxide

The Administrator shall, not later than one year after August 7, 1977, promulgate a national primary ambient air quality standard for NO₂ concentrations over a period of not more than 3 hours unless, based on the criteria issued under section 7408(c) of this title, he finds that there is no significant evidence that such a standard for such a period is requisite to protect public health.

(d) Review and revision of criteria and standards; independent scientific review committee; appointment; advisory functions

(1) Not later than December 31, 1980, and at five-year intervals thereafter, the Administrator shall complete a thorough review of the criteria published under section 7408 of this title and the national ambient air quality standards promulgated under this section and shall make such revisions in such criteria and standards and promulgate such new standards as may be appropriate in accordance with section 7408 of this title and subsection (b) of this section. The Administrator may review and revise criteria or promulgate new standards earlier or more frequently than required under this paragraph.

(2)(A) The Administrator shall appoint an independent scientific review committee composed of seven members including at least one

member of the National Academy of Sciences, one physician, and one person representing State air pollution control agencies.

(B) Not later than January 1, 1980, and at five-year intervals thereafter, the committee referred to in subparagraph (A) shall complete a review of the criteria published under section 7408 of this title and the national primary and secondary ambient air quality standards promulgated under this section and shall recommend to the Administrator any new national ambient air quality standards and revisions of existing criteria and standards as may be appropriate under section 7408 of this title and subsection (b) of this section.

(C) Such committee shall also (i) advise the Administrator of areas in which additional knowledge is required to appraise the adequacy and basis of existing, new, or revised national ambient air quality standards, (ii) describe the research efforts necessary to provide the required information, (iii) advise the Administrator on the relative contribution to air pollution concentrations of natural as well as anthropogenic activity, and (iv) advise the Administrator of any adverse public health, welfare, social, economic, or energy effects which may result from various strategies for attainment and maintenance of such national ambient air quality standards.

(July 14, 1955, c. 360, Title I, § 109, as added Dec. 31, 1970, Pub.L. 91-604, § 4(a), 84 Stat. 1679, and amended Aug. 7, 1977, Pub.L. 95-95, Title I, § 106, 91 Stat. 691.)

HISTORICAL AND STATUTORY NOTES

Revision Notes and Legislative Reports

1970 Acts. House Report No. 91-1146 and Conference Report No. 91-1783, see 1970 U.S. Code Cong. and Adm. News, p. 5356.

1977 Acts. House Report No. 95-294 and House Conference Report No. 95-564, see 1977 U.S. Code Cong. and Adm. News, p. 1077.

Codifications

Section was formerly classified to section 1857c-4 of this title.

Amendments

1977 Amendments. Subsec. (c). Pub.L. 95-95, § 106(b), added subsec. (c).

Subsec. (d). Pub.L. 95-95, § 106(a), added subsec. (d).

Effective and Applicability Provisions

1977 Acts. Amendment by Pub.L. 95-95 effective Aug. 7, 1977, except as otherwise expressly provided, see section

406(d) of Pub.L. 95-95, set out as a note under section 7401 of this title.

Prior Provisions

A prior section 109 of Act July 14, 1955, was renumbered section 116 by Pub.L. 91-604 and is set out as section 7416 of this title.

Modification or Rescission of Rules, Regulations, Orders, Determinations, Contracts, Certifications, Authorizations, Delegations, and Other Actions

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to Act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub.L. 95-95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with Act July 14, 1955, as amended by Pub.L. 95-95 [this chapter], see section 406(b) of Pub.L. 95-95, set out as an Effective and Applicability Provisions of 1977 Acts note under section 7401 of this title.

exclusive jurisdiction of the District Court for the District of Columbia; Act set forth bright line rule for agency action. *American Lung Ass'n v. Reilly*, C.A.2 (N.Y.) 1992, 962 F.2d 258. Federal Courts ⇨ 1134

25. Intervention

District court did not abuse its discretion in denying intervention as of right requested by 67 electric utilities in citizens' suit against the Environmental Protection Agency (EPA) to compel review, and if appropriate revision, of national ambient air quality standards for ozone, despite utilities' contention that they desired opportunity to help shape schedule for judicially compelled new rule making; utilities asked for little that was new or even particularly different from defenses asserted by EPA. *American Lung Ass'n v. Reilly*, C.A.2 (N.Y.) 1992, 962 F.2d 258. Federal Civil Procedure ⇨ 331

26. Estoppel

Agency was not collaterally estopped from asserting validity of its promulgation of attainment status designation for California by virtue of judicial decision made with respect to Pennsylvania designations. *Western Oil and Gas Ass'n v. U.S. E.P.A.*, C.A.9 1980, 633 F.2d 803. Judgment ⇨ 714(1)

27. Judicial review

Owner of electrical power plant complex had standing to challenge application by Environmental Protection Agency (EPA) of performance standards for petroleum refineries, which were promulgated under Clean Air Act, to two stationary gas turbines located in the complex. *Star Enterprise v. U.S. E.P.A.*, C.A.3 2000, 235 F.3d 139, as amended. Environmental Law ⇨ 656

Only after Environmental Protection Agency itself had applied principle allegedly limiting agency's discretion in setting national ambient air quality standard (NAAQS) levels, would court be able to determine whether the principle, in practice, fulfilled purposes of the nondelegation doctrine. *American Trucking Associations, Inc. v. U.S.E.P.A.*, C.A.D.C.1999, 195 F.3d 4, 338 U.S.App.D.C. 389, certiorari granted 120 S.Ct. 2003, 529 U.S. 1129, 146 L.Ed.2d 954, certiorari granted 120 S.Ct. 2193, 530 U.S. 1202, 147 L.Ed.2d 231, affirmed in part, reversed in part 121 S.Ct. 903, 531 U.S. 457, 149 L.Ed.2d 1, on remand 283 F.3d 355, 350 U.S.App.D.C. 254, certiorari granted, cause remanded 121 S.Ct. 1222, 532 U.S. 901, 149 L.Ed.2d 133, certiorari denied 121 S.Ct. 1224, 532 U.S. 903, 149 L.Ed.2d 135. Environmental Law ⇨ 683

Under this chapter, successful state court challenge on procedural grounds renders an implementation plan provision unenforceable in both federal and state courts, even though it has previously been approved by the federal Environmental Protection Agency. *Sierra Club v. Indiana-Kentucky Elec. Corp.*, C.A.7 (Ind.) 1983, 716 F.2d 1145. Judgment ⇨ 584; Judgment ⇨ 828.20(1)

Where Administrator bases his conclusion as to an adequate margin of safety on a reasoned analysis and evidence of risk the court will not reverse his determination of a primary and secondary national ambient air quality standard. *American Petroleum Institute v. Costle*, C.A.D.C.1981, 665 F.2d 1176, 214 U.S.App.D.C. 358, certiorari denied 102 S.Ct. 1737, 455 U.S. 1034, 72 L.Ed.2d 152. Environmental Law ⇨ 683

§ 7410. State implementation plans for national primary and secondary ambient air quality standards

(a) Adoption of plan by State; submission to Administrator; content of plan; revision; new sources; indirect source review program; supplemental or intermittent control systems

(1) Each State shall, after reasonable notice and public hearings, adopt and submit to the Administrator, within 3 years (or such shorter period as the Administrator may prescribe) after the promulgation of a national primary ambient air quality standard (or any revision thereof) under section 7409 of this title for any air pollutant,

42 § 7410 PUBLIC HEALTH AND WELFARE

a plan which provides for implementation, maintenance, and enforcement of such primary standard in each air quality control region (or portion thereof) within such State. In addition, such State shall adopt and submit to the Administrator (either as a part of a plan submitted under the preceding sentence or separately) within 3 years (or such shorter period as the Administrator may prescribe) after the promulgation of a national ambient air quality secondary standard (or revision thereof), a plan which provides for implementation, maintenance, and enforcement of such secondary standard in each air quality control region (or portion thereof) within such State. Unless a separate public hearing is provided, each State shall consider its plan implementing such secondary standard at the hearing required by the first sentence of this paragraph.

(2) Each implementation plan submitted by a State under this chapter shall be adopted by the State after reasonable notice and public hearing. Each such plan shall—

(A) include enforceable emission limitations and other control measures, means, or techniques (including economic incentives such as fees, marketable permits, and auctions of emissions rights), as well as schedules and timetables for compliance, as may be necessary or appropriate to meet the applicable requirements of this chapter;

(B) provide for establishment and operation of appropriate devices, methods, systems, and procedures necessary to—

(i) monitor, compile, and analyze data on ambient air quality, and

(ii) upon request, make such data available to the Administrator;

(C) include a program to provide for the enforcement of the measures described in subparagraph (A), and regulation of the modification and construction of any stationary source within the areas covered by the plan as necessary to assure that national ambient air quality standards are achieved, including a permit program as required in parts C and D of this subchapter;

(D) contain adequate provisions—

(i) prohibiting, consistent with the provisions of this subchapter, any source or other type of emissions activity within the State from emitting any air pollutant in amounts which will—

(I) contribute significantly to nonattainment in, or interfere with maintenance by, any other State with respect to any such national primary or secondary ambient air quality standard, or

(II) interfere with measures required to be included in the applicable implementation plan for any other State under part C of this subchapter to prevent significant deterioration of air quality or to protect visibility,

(ii) insuring compliance with the applicable requirements of sections 7426 and 7415 of this title (relating to interstate and international pollution abatement);

(E) provide (i) necessary assurances that the State (or, except where the Administrator deems inappropriate, the general purpose local government or governments, or a regional agency designated by the State or general purpose local governments for such purpose) will have adequate personnel, funding, and authority under State (and, as appropriate, local) law to carry out such implementation plan (and is not prohibited by any provision of Federal or State law from carrying out such implementation plan or portion thereof), (ii) requirements that the State comply with the requirements respecting State boards under section 7428 of this title, and (iii) necessary assurances that, where the State has relied on a local or regional government, agency, or instrumentality for the implementation of any plan provision, the State has responsibility for ensuring adequate implementation of such plan provision;

(F) require, as may be prescribed by the Administrator—

(i) the installation, maintenance, and replacement of equipment, and the implementation of other necessary steps, by owners or operators of stationary sources to monitor emissions from such sources,

(ii) periodic reports on the nature and amounts of emissions and emissions-related data from such sources, and

(iii) correlation of such reports by the State agency with any emission limitations or standards established pursuant to this chapter, which reports shall be available at reasonable times for public inspection;

(G) provide for authority comparable to that in section 7603 of this title and adequate contingency plans to implement such authority;

(H) provide for revision of such plan—

(i) from time to time as may be necessary to take account of revisions of such national primary or secondary ambient air quality standard or the availability of improved or more expeditious methods of attaining such standard, and

(ii) except as provided in paragraph (3)(C), whenever the Administrator finds on the basis of information available to the Administrator that the plan is substantially inadequate to

attain the national ambient air quality standard which it implements or to otherwise comply with any additional requirements established under this chapter;

(I) in the case of a plan or plan revision for an area designated as a nonattainment area, meet the applicable requirements of part D of this subchapter (relating to nonattainment areas);

(J) meet the applicable requirements of section 7421 of this title (relating to consultation), section 7427 of this title (relating to public notification), and part C of this subchapter (relating to prevention of significant deterioration of air quality and visibility protection);

(K) provide for—

(i) the performance of such air quality modeling as the Administrator may prescribe for the purpose of predicting the effect on ambient air quality of any emissions of any air pollutant for which the Administrator has established a national ambient air quality standard, and

(ii) the submission, upon request, of data related to such air quality modeling to the Administrator;

(L) require the owner or operator of each major stationary source to pay to the permitting authority, as a condition of any permit required under this chapter, a fee sufficient to cover—

(i) the reasonable costs of reviewing and acting upon any application for such a permit, and

(ii) if the owner or operator receives a permit for such source, the reasonable costs of implementing and enforcing the terms and conditions of any such permit (not including any court costs or other costs associated with any enforcement action),

until such fee requirement is superseded with respect to such sources by the Administrator's approval of a fee program under subchapter V of this chapter; and

(M) provide for consultation and participation by local political subdivisions affected by the plan.

(3)(A) Repealed. Pub.L. 101-549, Title I, § 101(d)(1), Nov. 15, 1990, 104 Stat. 2409

(B) As soon as practicable, the Administrator shall, consistent with the purposes of this chapter and the Energy Supply and Environmental Coordination Act of 1974 [15 U.S.C.A. § 791 et seq.], review each State's applicable implementation plans and report to the State on whether such plans can be revised in relation to fuel burning stationary sources (or persons supplying fuel to such sources) without interfering with the attainment and maintenance of any national

ambient air quality standard within the period permitted in this section. If the Administrator determines that any such plan can be revised, he shall notify the State that a plan revision may be submitted by the State. Any plan revision which is submitted by the State shall, after public notice and opportunity for public hearing, be approved by the Administrator if the revision relates only to fuel burning stationary sources (or persons supplying fuel to such sources), and the plan as revised complies with paragraph (2) of this subsection. The Administrator shall approve or disapprove any revision no later than three months after its submission.

(C) Neither the State, in the case of a plan (or portion thereof) approved under this subsection, nor the Administrator, in the case of a plan (or portion thereof) promulgated under subsection (c) of this section, shall be required to revise an applicable implementation plan because one or more exemptions under section 7418 of this title (relating to Federal facilities), enforcement orders under section 7413(d) of this title, suspensions under subsection (f) or (g) of this section (relating to temporary energy or economic authority), orders under section 7419 of this title (relating to primary nonferrous smelters), or extensions of compliance in decrees entered under section 7413(e) of this title (relating to iron- and steel-producing operations) have been granted, if such plan would have met the requirements of this section if no such exemptions, orders, or extensions had been granted.

(4) Repealed. Pub.L. 101-549, Title I, § 101(d)(2), Nov. 15, 1990, 104 Stat. 2409

(5)(A)(i) Any State may include in a State implementation plan, but the Administrator may not require as a condition of approval of such plan under this section, any indirect source review program. The Administrator may approve and enforce, as part of an applicable implementation plan, an indirect source review program which the State chooses to adopt and submit as part of its plan.

(ii) Except as provided in subparagraph (B), no plan promulgated by the Administrator shall include any indirect source review program for any air quality control region, or portion thereof.

(iii) Any State may revise an applicable implementation plan approved under this subsection to suspend or revoke any such program included in such plan, provided that such plan meets the requirements of this section.

(B) The Administrator shall have the authority to promulgate, implement and enforce regulations under subsection (c) of this section respecting indirect source review programs which apply only to

federally assisted highways, airports, and other major federally assisted indirect sources and federally owned or operated indirect sources.

(C) For purposes of this paragraph, the term "indirect source" means a facility, building, structure, installation, real property, road, or highway which attracts, or may attract, mobile sources of pollution. Such term includes parking lots, parking garages, and other facilities subject to any measure for management of parking supply (within the meaning of subsection (c)(2)(D)(ii) of this section), including regulation of existing off-street parking but such term does not include new or existing on-street parking. Direct emissions sources or facilities at, within, or associated with, any indirect source shall not be deemed indirect sources for the purpose of this paragraph.

(D) For purposes of this paragraph the term "indirect source review program" means the facility-by-facility review of indirect sources of air pollution, including such measures as are necessary to assure, or assist in assuring, that a new or modified indirect source will not attract mobile sources of air pollution, the emissions from which would cause or contribute to air pollution concentrations—

(i) exceeding any national primary ambient air quality standard for a mobile source-related air pollutant after the primary standard attainment date, or

(ii) preventing maintenance of any such standard after such date.

(E) For purposes of this paragraph and paragraph (2)(B), the term "transportation control measure" does not include any measure which is an "indirect source review program".

(6) No State plan shall be treated as meeting the requirements of this section unless such plan provides that in the case of any source which uses a supplemental, or intermittent control system for purposes of meeting the requirements of an order under section 7413(d) of this title or section 7419 of this title (relating to primary nonferrous smelter orders), the owner or operator of such source may not temporarily reduce the pay of any employee by reason of the use of such supplemental or intermittent or other dispersion dependent control system.

(b) Extension of period for submission of plans

The Administrator may, wherever he determines necessary, extend the period for submission of any plan or portion thereof which implements a national secondary ambient air quality standard for a period not to exceed 18 months from the date otherwise required for submission of such plan.

(c) Preparation and publication by Administrator of proposed regulations setting forth implementation plan; transportation regulations study and report; parking surcharge; suspension authority; plan implementation

(1) The Administrator shall promulgate a Federal implementation plan at any time within 2 years after the Administrator—

(A) finds that a State has failed to make a required submission or finds that the plan or plan revision submitted by the State does not satisfy the minimum criteria established under subsection (k)(1)(A) of this section, or

(B) disapproves a State implementation plan submission in whole or in part,

unless the State corrects the deficiency, and the Administrator approves the plan or plan revision, before the Administrator promulgates such Federal implementation plan.

(2)(A) Repealed. Pub.L. 101-549, Title I, § 101(d)(3)(A), Nov. 15, 1990, 104 Stat. 2409

(B) No parking surcharge regulation may be required by the Administrator under paragraph (1) of this subsection as a part of an applicable implementation plan. All parking surcharge regulations previously required by the Administrator shall be void upon June 22, 1974. This subparagraph shall not prevent the Administrator from approving parking surcharges if they are adopted and submitted by a State as part of an applicable implementation plan. The Administrator may not condition approval of any implementation plan submitted by a State on such plan's including a parking surcharge regulation.

(C) Repealed. Pub.L. 101-549, Title I, § 101(d)(3)(B), Nov. 15, 1990, 104 Stat. 2409

(D) For purposes of this paragraph—

(i) The term “parking surcharge regulation” means a regulation imposing or requiring the imposition of any tax, surcharge, fee, or other charge on parking spaces, or any other area used for the temporary storage of motor vehicles.

(ii) The term “management of parking supply” shall include any requirement providing that any new facility containing a given number of parking spaces shall receive a permit or other prior approval, issuance of which is to be conditioned on air quality considerations.

(iii) The term “preferential bus/carpool lane” shall include any requirement for the setting aside of one or more lanes of a street or highway on a permanent or temporary basis for the exclusive use of buses or carpools, or both.

(E) No standard, plan, or requirement, relating to management of parking supply or preferential bus/carpool lanes shall be promulgated after June 22, 1974, by the Administrator pursuant to this section, unless such promulgation has been subjected to at least one public hearing which has been held in the area affected and for which reasonable notice has been given in such area. If substantial changes are made following public hearings, one or more additional hearings shall be held in such area after such notice.

(3) Upon application of the chief executive officer of any general purpose unit of local government, if the Administrator determines that such unit has adequate authority under State or local law, the Administrator may delegate to such unit the authority to implement and enforce within the jurisdiction of such unit any part of a plan promulgated under this subsection. Nothing in this paragraph shall prevent the Administrator from implementing or enforcing any applicable provision of a plan promulgated under this subsection.

(4) Repealed. Pub.L. 101-549, Title I, § 101(d)(3)(C), Nov. 15, 1990, 104 Stat. 2409

(5)(A) Any measure in an applicable implementation plan which requires a toll or other charge for the use of a bridge located entirely within one city shall be eliminated from such plan by the Administrator upon application by the Governor of the State, which application shall include a certification by the Governor that he will revise such plan in accordance with subparagraph (B).

(B) In the case of any applicable implementation plan with respect to which a measure has been eliminated under subparagraph (A), such plan shall, not later than one year after August 7, 1977, be revised to include comprehensive measures to:

(i) establish, expand, or improve public transportation measures to meet basic transportation needs, as expeditiously as is practicable; and

(ii) implement transportation control measures necessary to attain and maintain national ambient air quality standards,

and such revised plan shall, for the purpose of implementing such comprehensive public transportation measures, include requirements to use (insofar as is necessary) Federal grants, State or local funds, or any combination of such grants and funds as may be consistent with the terms of the legislation providing such grants and funds. Such measures shall, as a substitute for the tolls or charges eliminated under subparagraph (A), provide for emissions reductions equivalent to the reductions which may reasonably be expected to be achieved through the use of the tolls or charges eliminated.

(C) Any revision of an implementation plan for purposes of meeting the requirements of subparagraph (B) shall be submitted in coordination with any plan revision required under part D of this subchapter.

(d), (e) Repealed. Pub.L. 101-549, Title I, § 101(d)(4), (5), Nov. 15, 1990, 104 Stat. 2409

(f) **National or regional energy emergencies; determination by President**

(1) Upon application by the owner or operator of a fuel burning stationary source, and after notice and opportunity for public hearing, the Governor of the State in which such source is located may petition the President to determine that a national or regional energy emergency exists of such severity that—

(A) a temporary suspension of any part of the applicable implementation plan or of any requirement under section 7651j of this title (concerning excess emissions penalties or offsets) may be necessary, and

(B) other means of responding to the energy emergency may be inadequate.

Such determination shall not be delegable by the President to any other person. If the President determines that a national or regional energy emergency of such severity exists, a temporary emergency suspension of any part of an applicable implementation plan or of any requirement under section 7651j of this title (concerning excess emissions penalties or offsets) adopted by the State may be issued by the Governor of any State covered by the President's determination under the condition specified in paragraph (2) and may take effect immediately.

(2) A temporary emergency suspension under this subsection shall be issued to a source only if the Governor of such State finds that—

(A) there exists in the vicinity of such source a temporary energy emergency involving high levels of unemployment or loss of necessary energy supplies for residential dwellings; and

(B) such unemployment or loss can be totally or partially alleviated by such emergency suspension.

Not more than one such suspension may be issued for any source on the basis of the same set of circumstances or on the basis of the same emergency.

(3) A temporary emergency suspension issued by a Governor under this subsection shall remain in effect for a maximum of four months or such lesser period as may be specified in a disapproval order of the Administrator, if any. The Administrator may disap-

prove such suspension if he determines that it does not meet the requirements of paragraph (2).

(4) This subsection shall not apply in the case of a plan provision or requirement promulgated by the Administrator under subsection (c) of this section, but in any such case the President may grant a temporary emergency suspension for a four month period of any such provision or requirement if he makes the determinations and findings specified in paragraphs (1) and (2).

(5) The Governor may include in any temporary emergency suspension issued under this subsection a provision delaying for a period identical to the period of such suspension any compliance schedule (or increment of progress) to which such source is subject under section 1857c-10 of this title, as in effect before August 7, 1977, or section 7413(d) of this title, upon a finding that such source is unable to comply with such schedule (or increment) solely because of the conditions on the basis of which a suspension was issued under this subsection.

(g) Governor's authority to issue temporary emergency suspensions

(1) In the case of any State which has adopted and submitted to the Administrator a proposed plan revision which the State determines—

(A) meets the requirements of this section, and

(B) is necessary (i) to prevent the closing for one year or more of any source of air pollution, and (ii) to prevent substantial increases in unemployment which would result from such closing, and

which the Administrator has not approved or disapproved under this section within 12 months of submission of the proposed plan revision, the Governor may issue a temporary emergency suspension of the part of the applicable implementation plan for such State which is proposed to be revised with respect to such source. The determination under subparagraph (B) may not be made with respect to a source which would close without regard to whether or not the proposed plan revision is approved.

(2) A temporary emergency suspension issued by a Governor under this subsection shall remain in effect for a maximum of four months or such lesser period as may be specified in a disapproval order of the Administrator. The Administrator may disapprove such suspension if he determines that it does not meet the requirements of this subsection.

(3) The Governor may include in any temporary emergency suspension issued under this subsection a provision delaying for a

period identical to the period of such suspension any compliance schedule (or increment of progress) to which such source is subject under section 1857c-10 of this title as in effect before August 7, 1977, or under section 7413(d) of this title upon a finding that such source is unable to comply with such schedule (or increment) solely because of the conditions on the basis of which a suspension was issued under this subsection.

(h) Publication of comprehensive document for each State setting forth requirements of applicable implementation plan

(1) Not later than 5 years after November 15, 1990, and every 3 years thereafter, the Administrator shall assemble and publish a comprehensive document for each State setting forth all requirements of the applicable implementation plan for such State and shall publish notice in the Federal Register of the availability of such documents.

(2) The Administrator may promulgate such regulations as may be reasonably necessary to carry out the purpose of this subsection.

(i) Modification of requirements prohibited

Except for a primary nonferrous smelter order under section 7419 of this title, a suspension under subsection (f) or (g) of this section (relating to emergency suspensions), an exemption under section 7418 of this title (relating to certain Federal facilities), an order under section 7413(d) of this title (relating to compliance orders), a plan promulgation under subsection (c) of this section, or a plan revision under subsection (a)(3) of this section, no order, suspension, plan revision, or other action modifying any requirement of an applicable implementation plan may be taken with respect to any stationary source by the State or by the Administrator.

(j) Technological systems of continuous emission reduction on new or modified stationary sources; compliance with performance standards

As a condition for issuance of any permit required under this subchapter, the owner or operator of each new or modified stationary source which is required to obtain such a permit must show to the satisfaction of the permitting authority that the technological system of continuous emission reduction which is to be used will enable such source to comply with the standards of performance which are to apply to such source and that the construction or modification and operation of such source will be in compliance with all other requirements of this chapter.

(k) Environmental Protection Agency action on plan submissions**(1) Completeness of plan submissions****(A) Completeness criteria**

Within 9 months after November 15, 1990, the Administrator shall promulgate minimum criteria that any plan submission must meet before the Administrator is required to act on such submission under this subsection. The criteria shall be limited to the information necessary to enable the Administrator to determine whether the plan submission complies with the provisions of this chapter.

(B) Completeness finding

Within 60 days of the Administrator's receipt of a plan or plan revision, but no later than 6 months after the date, if any, by which a State is required to submit the plan or revision, the Administrator shall determine whether the minimum criteria established pursuant to subparagraph (A) have been met. Any plan or plan revision that a State submits to the Administrator, and that has not been determined by the Administrator (by the date 6 months after receipt of the submission) to have failed to meet the minimum criteria established pursuant to subparagraph (A), shall on that date be deemed by operation of law to meet such minimum criteria.

(C) Effect of finding of incompleteness

Where the Administrator determines that a plan submission (or part thereof) does not meet the minimum criteria established pursuant to subparagraph (A), the State shall be treated as not having made the submission (or, in the Administrator's discretion, part thereof).

(2) Deadline for action

Within 12 months of a determination by the Administrator (or a determination deemed by operation of law) under paragraph (1) that a State has submitted a plan or plan revision (or, in the Administrator's discretion, part thereof) that meets the minimum criteria established pursuant to paragraph (1), if applicable (or, if those criteria are not applicable, within 12 months of submission of the plan or revision), the Administrator shall act on the submission in accordance with paragraph (3).

(3) Full and partial approval and disapproval

In the case of any submittal on which the Administrator is required to act under paragraph (2), the Administrator shall

approve such submittal as a whole if it meets all of the applicable requirements of this chapter. If a portion of the plan revision meets all the applicable requirements of this chapter, the Administrator may approve the plan revision in part and disapprove the plan revision in part. The plan revision shall not be treated as meeting the requirements of this chapter until the Administrator approves the entire plan revision as complying with the applicable requirements of this chapter.

(4) Conditional approval

The Administrator may approve a plan revision based on a commitment of the State to adopt specific enforceable measures by a date certain, but not later than 1 year after the date of approval of the plan revision. Any such conditional approval shall be treated as a disapproval if the State fails to comply with such commitment.

(5) Calls for plan revisions

Whenever the Administrator finds that the applicable implementation plan for any area is substantially inadequate to attain or maintain the relevant national ambient air quality standard, to mitigate adequately the interstate pollutant transport described in section 7506a of this title or section 7511c of this title, or to otherwise comply with any requirement of this chapter, the Administrator shall require the State to revise the plan as necessary to correct such inadequacies. The Administrator shall notify the State of the inadequacies, and may establish reasonable deadlines (not to exceed 18 months after the date of such notice) for the submission of such plan revisions. Such findings and notice shall be public. Any finding under this paragraph shall, to the extent the Administrator deems appropriate, subject the State to the requirements of this chapter to which the State was subject when it developed and submitted the plan for which such finding was made, except that the Administrator may adjust any dates applicable under such requirements as appropriate (except that the Administrator may not adjust any attainment date prescribed under part D of this subchapter, unless such date has elapsed).

(6) Corrections

Whenever the Administrator determines that the Administrator's action approving, disapproving, or promulgating any plan or plan revision (or part thereof), area designation, redesignation, classification, or reclassification was in error, the Administrator may in the same manner as the approval, disapproval, or promulgation revise such action as appropriate without requir-

ing any further submission from the State. Such determination and the basis thereof shall be provided to the State and public.

(l) Plan revisions

Each revision to an implementation plan submitted by a State under this chapter shall be adopted by such State after reasonable notice and public hearing. The Administrator shall not approve a revision of a plan if the revision would interfere with any applicable requirement concerning attainment and reasonable further progress (as defined in section 7501 of this title), or any other applicable requirement of this chapter.

(m) Sanctions

The Administrator may apply any of the sanctions listed in section 7509(b) of this title at any time (or at any time after) the Administrator makes a finding, disapproval, or determination under paragraphs (1) through (4), respectively, of section 7509(a) of this title in relation to any plan or plan item (as that term is defined by the Administrator) required under this chapter, with respect to any portion of the State the Administrator determines reasonable and appropriate, for the purpose of ensuring that the requirements of this chapter relating to such plan or plan item are met. The Administrator shall, by rule, establish criteria for exercising his authority under the previous sentence with respect to any deficiency referred to in section 7509(a) of this title to ensure that, during the 24-month period following the finding, disapproval, or determination referred to in section 7509(a) of this title, such sanctions are not applied on a statewide basis where one or more political subdivisions covered by the applicable implementation plan are principally responsible for such deficiency.

(n) Savings clauses

(1) Existing plan provisions

Any provision of any applicable implementation plan that was approved or promulgated by the Administrator pursuant to this section as in effect before November 15, 1990, shall remain in effect as part of such applicable implementation plan, except to the extent that a revision to such provision is approved or promulgated by the Administrator pursuant to this chapter.

(2) Attainment dates

For any area not designated nonattainment, any plan or plan revision submitted or required to be submitted by a State—

(A) in response to the promulgation or revision of a national primary ambient air quality standard in effect on November 15, 1990, or

(B) in response to a finding of substantial inadequacy under subsection (a)(2) of this section (as in effect immediately before November 15, 1990),

shall provide for attainment of the national primary ambient air quality standards within 3 years of November 15, 1990, or within 5 years of issuance of such finding of substantial inadequacy, whichever is later.

(3) Retention of construction moratorium in certain areas

In the case of an area to which, immediately before November 15, 1990, the prohibition on construction or modification of major stationary sources prescribed in subsection (a)(2)(I) of this section (as in effect immediately before November 15, 1990) applied by virtue of a finding of the Administrator that the State containing such area had not submitted an implementation plan meeting the requirements of section 7502(b)(6) of this title (relating to establishment of a permit program) (as in effect immediately before November 15, 1990) or 7502(a)(1) of this title (to the extent such requirements relate to provision for attainment of the primary national ambient air quality standard for sulfur oxides by December 31, 1982) as in effect immediately before November 15, 1990, no major stationary source of the relevant air pollutant or pollutants shall be constructed or modified in such area until the Administrator finds that the plan for such area meets the applicable requirements of section 7502(c)(5) of this title (relating to permit programs) or subpart 5 of part D of this subchapter (relating to attainment of the primary national ambient air quality standard for sulfur dioxide), respectively.

(o) Indian tribes

If an Indian tribe submits an implementation plan to the Administrator pursuant to section 7601(d) of this title, the plan shall be reviewed in accordance with the provisions for review set forth in this section for State plans, except as otherwise provided by regulation promulgated pursuant to section 7601(d)(2) of this title. When such plan becomes effective in accordance with the regulations promulgated under section 7601(d) of this title, the plan shall become applicable to all areas (except as expressly provided otherwise in the plan) located within the exterior boundaries of the reservation, notwithstanding the issuance of any patent and including rights-of-way running through the reservation.

(p) Reports

Any State shall submit, according to such schedule as the Administrator may prescribe, such reports as the Administrator may require relating to emission reductions, vehicle miles traveled, congestion

levels, and any other information the Administrator may deem necessary to assess the development effectiveness, need for revision, or implementation of any plan or plan revision required under this chapter.

(July 14, 1955, c. 360, Title I, § 110, as added Dec. 31, 1970, Pub.L. 91-604, § 4(a), 84 Stat. 1680, and amended June 22, 1974, Pub.L. 93-319, § 4, 88 Stat. 256; S.Res. 4, Feb. 4, 1977; Aug. 7, 1977, Pub.L. 95-95, Title I, §§ 107, 108, 91 Stat. 691, 693; Nov. 16, 1977, Pub.L. 95-190, § 14(a)(1)-(6), 91 Stat. 1399; July 17, 1981, Pub.L. 97-23, § 3, 95 Stat. 142; Nov. 15, 1990, Pub.L. 101-549, Title I, §§ 101(b)-(d), 102(h), 107(c), 108(d), Title IV, § 412, 104 Stat. 2404-2408, 2422, 2464, 2466, 2634.)

HISTORICAL AND STATUTORY NOTES

Revision Notes and Legislative Reports

1970 Acts. House Report No. 91-1146 and Conference Report No. 91-1783, see 1970 U.S. Code Cong. and Adm. News, p. 5356.

1974 Acts. House Report No. 93-1013 and Conference Report No. 93-1085, see 1974 U.S. Code Cong. and Adm. News, p. 3281.

1977 Acts. House Report No. 95-294 and House Conference Report No. 95-564, see 1977 U.S. Code Cong. and Adm. News, p. 1077.

House Report No. 95-338, see 1977 U.S. Code Cong. and Adm. News, p. 3648.

1981 Acts. House Report No. 97-121 and House Conference Report No. 97-161, see 1981 U.S. Code Cong. and Adm. News, p. 56.

1990 Acts. Senate Report No. 101-228, House Conference Report No. 101-952, and Statement by President, see 1990 U.S. Code Cong. and Adm. News, p. 3385.

References in Text

The Energy Supply and Environmental Coordination Act of 1974, referred to in subsec. (a)(3)(B), is Pub.L. 93-319, June 22, 1974, 88 Stat. 246, as amended, which is classified principally to chapter 16C (section 791 et seq.) of Title 15, Commerce and Trade. For complete classification of this Act to the Code, see Short Title note set out under section 791 of Title 15 and Tables.

Section 7413 of this title, referred to in subsecs. (a)(3)(C), (6), (f)(5), (g)(3), and (i), was amended generally by Pub.L. 101-549, Title VII, § 701, Nov. 15, 1990, 104 Stat. 2672, and, as so amended, sub-

secs. (d) and (e) of section 7413 no longer relate to final compliance orders and steel industry compliance extension, respectively.

Section 1857c-10 of this title, as in effect before August 7, 1977, referred to in subsecs. (f)(5) and (g)(3), was in the original "section 119, as in effect before the date of the enactment of this paragraph", meaning section 119 of Act July 14, 1955, c. 360, Title I, as added June 22, 1974, Pub.L. 93-319, § 3, 88 Stat. 248, (which was classified to section 1857c-10 of this title) as in effect prior to the enactment of subsecs. (f)(5) and (g)(3) of this section by Pub.L. 95-95, § 107, Aug. 7, 1977, 91 Stat. 691, effective Aug. 7, 1977. Section 112(b)(1) of Pub.L. 95-95 repealed section 119 of Act July 14, 1955, c. 360, Title I, as added by Pub.L. 93-319, and provided that all references to such section 119 in any subsequent enactment which supersedes Pub.L. 93-319 shall be construed to refer to section 113(d) of the Clean Air Act and to paragraph (5) thereof in particular which is classified to section 7413(d)(5) of this title. Section 7413 of this title was subsequently amended generally by Pub.L. 101-549, Title VII, § 701, Nov. 15, 1990, 104 Stat. 2672, see note above. Section 117(b) of Pub.L. 95-95 added a new section 119 of Act July 14, 1955, which is classified to section 7419 of this title.

Codifications

Section was formerly classified to section 1857c-5 of this title.

Amendments

1990 Amendments. Subsec. (a)(1). Pub.L. 101-549, § 101(d)(8), substituted "3 years (or such shorter period as the

§ 7607. Administrative proceedings and judicial review**(a) Administrative subpoenas; confidentiality; witnesses**

In connection with any determination under section 7410(f) of this title, or for purposes of obtaining information under section 7521(b)(4) or 7545(c)(3) of this title, any investigation, monitoring, reporting requirement, entry, compliance inspection, or administrative enforcement proceeding under the ¹ chapter (including but not limited to section 7413, section 7414, section 7420, section 7429, section 7477, section 7524, section 7525, section 7542, section 7603, or section 7606 of this title),² the Administrator may issue subpoenas for the attendance and testimony of witnesses and the production of relevant papers, books, and documents, and he may administer oaths. Except for emission data, upon a showing satisfactory to the Administrator by such owner or operator that such papers, books, documents, or information or particular part thereof, if made public, would divulge trade secrets or secret processes of such owner or operator, the Administrator shall consider such record, report, or information or particular portion thereof confidential in accordance with the purposes of section 1905 of Title 18, except that such paper, book, document, or information may be disclosed to other officers, employees, or authorized representatives of the United States concerned with carrying out this chapter, to persons carrying out the National Academy of Sciences' study and investigation provided for in section 7521(c) of this title, or when relevant in any proceeding under this chapter. Witnesses summoned shall be paid the same fees and mileage that are paid witnesses in the courts of the United States. In case of contumacy or refusal to obey a subpoena served upon any person under this subparagraph, the district court of the United States for any district in which such person is found or resides or transacts business, upon application by the United States and after notice to such person, shall have jurisdiction to issue an order requiring such person to appear and give testimony before the Administrator to appear and produce papers, books, and documents before the Administrator, or both, and any failure to obey such order of the court may be punished by such court as a contempt thereof.

(b) Judicial review

(1) A petition for review of action of the Administrator in promulgating any national primary or secondary ambient air quality standard, any emission standard or requirement under section 7412 of this title, any standard of performance or requirement under section 7411 of this title, any standard under section 7521 of this title (other than a standard required to be prescribed under section 7521(b)(1) of

this title), any determination under section 7521(b)(5) of this title, any control or prohibition under section 7545 of this title, any standard under section 7571 of this title, any rule issued under section 7413, 7419, or under section 7420 of this title, or any other nationally applicable regulations promulgated, or final action taken, by the Administrator under this chapter may be filed only in the United States Court of Appeals for the District of Columbia. A petition for review of the Administrator's action in approving or promulgating any implementation plan under section 7410 of this title or section 7411(d) of this title, any order under section 7411(j) of this title, under section 7412 of this title,² under section 7419 of this title, or under section 7420 of this title, or his action under section 1857c-10(c)(2)(A), (B), or (C) of this title (as in effect before August 7, 1977) or under regulations thereunder, or revising regulations for enhanced monitoring and compliance certification programs under section 7414(a)(3) of this title, or any other final action of the Administrator under this chapter (including any denial or disapproval by the Administrator under subchapter I of this chapter) which is locally or regionally applicable may be filed only in the United States Court of Appeals for the appropriate circuit. Notwithstanding the preceding sentence a petition for review of any action referred to in such sentence may be filed only in the United States Court of Appeals for the District of Columbia if such action is based on a determination of nationwide scope or effect and if in taking such action the Administrator finds and publishes that such action is based on such a determination. Any petition for review under this subsection shall be filed within sixty days from the date notice of such promulgation, approval, or action appears in the Federal Register, except that if such petition is based solely on grounds arising after such sixtieth day, then any petition for review under this subsection shall be filed within sixty days after such grounds arise. The filing of a petition for reconsideration by the Administrator of any otherwise final rule or action shall not affect the finality of such rule or action for purposes of judicial review nor extend the time within which a petition for judicial review of such rule or action under this section may be filed, and shall not postpone the effectiveness of such rule or action.

(2) Action of the Administrator with respect to which review could have been obtained under paragraph (1) shall not be subject to judicial review in civil or criminal proceedings for enforcement. Where a final decision by the Administrator defers performance of any nondiscretionary statutory action to a later time, any person may challenge the deferral pursuant to paragraph (1).

(c) Additional evidence

In any judicial proceeding in which review is sought of a determination under this chapter required to be made on the record after

notice and opportunity for hearing, if any party applies to the court for leave to adduce additional evidence, and shows to the satisfaction of the court that such additional evidence is material and that there were reasonable grounds for the failure to adduce such evidence in the proceeding before the Administrator, the court may order such additional evidence (and evidence in rebuttal thereof) to be taken before the Administrator, in such manner and upon such terms and conditions as to³ the court may deem proper. The Administrator may modify his findings as to the facts, or make new findings, by reason of the additional evidence so taken and he shall file such modified or new findings, and his recommendation, if any, for the modification or setting aside of his original determination, with the return of such additional evidence.

(d) Rulemaking

(1) This subsection applies to—

(A) the promulgation or revision of any national ambient air quality standard under section 7409 of this title,

(B) the promulgation or revision of an implementation plan by the Administrator under section 7410(c) of this title,

(C) the promulgation or revision of any standard of performance under section 7411 of this title, or emission standard or limitation under section 7412(d) of this title, any standard under section 7412(f) of this title, or any regulation under section 7412(g)(1)(D) and (F) of this title, or any regulation under section 7412(m) or (n) of this title,

(D) the promulgation of any requirement for solid waste combustion under section 7429 of this title,

(E) the promulgation or revision of any regulation pertaining to any fuel or fuel additive under section 7545 of this title,

(F) the promulgation or revision of any aircraft emission standard under section 7571 of this title,

(G) the promulgation or revision of any regulation under subchapter IV-A of this chapter (relating to control of acid deposition),

(H) promulgation or revision of regulations pertaining to primary nonferrous smelter orders under section 7419 of this title (but not including the granting or denying of any such order),

(I) promulgation or revision of regulations under subchapter VI of this chapter (relating to stratosphere and ozone protection),

(J) promulgation or revision of regulations under part C of subchapter I of this chapter (relating to prevention of significant deterioration of air quality and protection of visibility),

(K) promulgation or revision of regulations under section 7521 of this title and test procedures for new motor vehicles or engines under section 7525 of this title, and the revision of a standard under section 7521(a)(3) of this title,

(L) promulgation or revision of regulations for noncompliance penalties under section 7420 of this title,

(M) promulgation or revision of any regulations promulgated under section 7541 of this title (relating to warranties and compliance by vehicles in actual use),

(N) action of the Administrator under section 7426 of this title (relating to interstate pollution abatement),

(O) the promulgation or revision of any regulation pertaining to consumer and commercial products under section 7511b(e) of this title,

(P) the promulgation or revision of any regulation pertaining to field citations under section 7413(d)(3) of this title,

(Q) the promulgation or revision of any regulation pertaining to urban buses or the clean-fuel vehicle, clean-fuel fleet, and clean fuel programs under part C of subchapter II of this chapter,

(R) the promulgation or revision of any regulation pertaining to nonroad engines or nonroad vehicles under section 7547 of this title,

(S) the promulgation or revision of any regulation relating to motor vehicle compliance program fees under section 7552 of this title,

(T) the promulgation or revision of any regulation under subchapter IV-A of this chapter (relating to acid deposition),

(U) the promulgation or revision of any regulation under section 7511b(f) of this title pertaining to marine vessels, and

(V) such other actions as the Administrator may determine.

The provisions of section 553 through 557 and section 706 of Title 5 shall not, except as expressly provided in this subsection, apply to actions to which this subsection applies. This subsection shall not apply in the case of any rule or circumstance referred to in subparagraphs (A) or (B) of subsection 553(b) of Title 5.

(2) Not later than the date of proposal of any action to which this subsection applies, the Administrator shall establish a rulemaking docket for such action (hereinafter in this subsection referred to as a "rule"). Whenever a rule applies only within a particular State, a second (identical) docket shall be simultaneously established in the appropriate regional office of the Environmental Protection Agency.

(3) In the case of any rule to which this subsection applies, notice of proposed rulemaking shall be published in the Federal Register, as provided under section 553(b) of Title 5, shall be accompanied by a statement of its basis and purpose and shall specify the period available for public comment (hereinafter referred to as the "comment period"). The notice of proposed rulemaking shall also state the docket number, the location or locations of the docket, and the times it will be open to public inspection. The statement of basis and purpose shall include a summary of—

- (A) the factual data on which the proposed rule is based;
- (B) the methodology used in obtaining the data and in analyzing the data; and
- (C) the major legal interpretations and policy considerations underlying the proposed rule.

The statement shall also set forth or summarize and provide a reference to any pertinent findings, recommendations, and comments by the Scientific Review Committee established under section 7409(d) of this title and the National Academy of Sciences, and, if the proposal differs in any important respect from any of these recommendations, an explanation of the reasons for such differences. All data, information, and documents referred to in this paragraph on which the proposed rule relies shall be included in the docket on the date of publication of the proposed rule.

(4)(A) The rulemaking docket required under paragraph (2) shall be open for inspection by the public at reasonable times specified in the notice of proposed rulemaking. Any person may copy documents contained in the docket. The Administrator shall provide copying facilities which may be used at the expense of the person seeking copies, but the Administrator may waive or reduce such expenses in such instances as the public interest requires. Any person may request copies by mail if the person pays the expenses, including personnel costs to do the copying.

(B)(i) Promptly upon receipt by the agency, all written comments and documentary information on the proposed rule received from any person for inclusion in the docket during the comment period shall be placed in the docket. The transcript of public hearings, if any, on the proposed rule shall also be included in the docket promptly upon receipt from the person who transcribed such hearings. All documents which become available after the proposed rule has been published and which the Administrator determines are of central relevance to the rulemaking shall be placed in the docket as soon as possible after their availability.

(ii) The drafts of proposed rules submitted by the Administrator to the Office of Management and Budget for any interagency review process prior to proposal of any such rule, all documents accompanying such drafts, and all written comments thereon by other agencies and all written responses to such written comments by the Administrator shall be placed in the docket no later than the date of proposal of the rule. The drafts of the final rule submitted for such review process prior to promulgation and all such written comments thereon, all documents accompanying such drafts, and written responses thereto shall be placed in the docket no later than the date of promulgation.

(5) In promulgating a rule to which this subsection applies (i) the Administrator shall allow any person to submit written comments, data, or documentary information; (ii) the Administrator shall give interested persons an opportunity for the oral presentation of data, views, or arguments, in addition to an opportunity to make written submissions; (iii) a transcript shall be kept of any oral presentation; and (iv) the Administrator shall keep the record of such proceeding open for thirty days after completion of the proceeding to provide an opportunity for submission of rebuttal and supplementary information.

(6)(A) The promulgated rule shall be accompanied by (i) a statement of basis and purpose like that referred to in paragraph (3) with respect to a proposed rule and (ii) an explanation of the reasons for any major changes in the promulgated rule from the proposed rule.

(B) The promulgated rule shall also be accompanied by a response to each of the significant comments, criticisms, and new data submitted in written or oral presentations during the comment period.

(C) The promulgated rule may not be based (in part or whole) on any information or data which has not been placed in the docket as of the date of such promulgation.

(7)(A) The record for judicial review shall consist exclusively of the material referred to in paragraph (3), clause (i) of paragraph (4)(B), and subparagraphs (A) and (B) of paragraph (6).

(B) Only an objection to a rule or procedure which was raised with reasonable specificity during the period for public comment (including any public hearing) may be raised during judicial review. If the person raising an objection can demonstrate to the Administrator that it was impracticable to raise such objection within such time or if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the outcome of the rule, the Administrator shall convene a proceeding for reconsideration of the

rule and provide the same procedural rights as would have been afforded had the information been available at the time the rule was proposed. If the Administrator refuses to convene such a proceeding, such person may seek review of such refusal in the United States court of appeals for the appropriate circuit (as provided in subsection (b) of this section). Such reconsideration shall not postpone the effectiveness of the rule. The effectiveness of the rule may be stayed during such reconsideration, however, by the Administrator or the court for a period not to exceed three months.

(8) The sole forum for challenging procedural determinations made by the Administrator under this subsection shall be in the United States court of appeals for the appropriate circuit (as provided in subsection (b) of this section) at the time of the substantive review of the rule. No interlocutory appeals shall be permitted with respect to such procedural determinations. In reviewing alleged procedural errors, the court may invalidate the rule only if the errors were so serious and related to matters of such central relevance to the rule that there is a substantial likelihood that the rule would have been significantly changed if such errors had not been made.

(9) In the case of review of any action of the Administrator to which this subsection applies, the court may reverse any such action found to be—

(A) arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law;

(B) contrary to constitutional right, power, privilege, or immunity;

(C) in excess of statutory jurisdiction, authority, or limitations, or short of statutory right; or

(D) without observance of procedure required by law, if (i) such failure to observe such procedure is arbitrary or capricious, (ii) the requirement of paragraph (7)(B) has been met, and (iii) the condition of the last sentence of paragraph (8) is met.

(10) Each statutory deadline for promulgation of rules to which this subsection applies which requires promulgation less than six months after date of proposal may be extended to not more than six months after date of proposal by the Administrator upon a determination that such extension is necessary to afford the public, and the agency, adequate opportunity to carry out the purposes of this subsection.

(11) The requirements of this subsection shall take effect with respect to any rule the proposal of which occurs after ninety days after August 7, 1977.

(e) Other methods of judicial review not authorized

Nothing in this chapter shall be construed to authorize judicial review of regulations or orders of the Administrator under this chapter, except as provided in this section.

(f) Costs

In any judicial proceeding under this section, the court may award costs of litigation (including reasonable attorney and expert witness fees) whenever it determines that such award is appropriate.

(g) Stay, injunction, or similar relief in proceedings relating to noncompliance penalties

In any action respecting the promulgation of regulations under section 7420 of this title or the administration or enforcement of section 7420 of this title no court shall grant any stay, injunctive, or similar relief before final judgment by such court in such action.

(h) Public participation

It is the intent of Congress that, consistent with the policy of subchapter II of chapter 5 of Title 5, the Administrator in promulgating any regulation under this chapter, including a regulation subject to a deadline, shall ensure a reasonable period for public participation of at least 30 days, except as otherwise expressly provided in section ⁴ 7407(d), 7502(a), 7511(a) and (b), and 7512(a) and (b) of this title.

(July 14, 1955, c. 360, Title III, § 307, as added Dec. 31, 1970, Pub.L. 91-604, § 12(a), 84 Stat. 1707, and amended Nov. 18, 1971, Pub.L. 92-157, Title III, § 302(a), 85 Stat. 464; June 22, 1974, Pub.L. 93-319, § 6(c), 88 Stat. 259; Aug. 7, 1977, Pub.L. 95-95, Title III, §§ 303(d), 305(a), (c), (f)-(h), 91 Stat. 772, 776, 777; Nov. 16, 1977, Pub.L. 95-190, § 14(a)(79), (80), 91 Stat. 1404; Nov. 15, 1990, Pub.L. 101-549, Title I, §§ 108(p), 110(5), Title III, § 302(g), (h), Title VII, §§ 702(c), 703, 706, 707(h), 710(b), 104 Stat. 2469, 2470, 2574, 2681-2684.)

¹ So in original. Probably should be "this".

² So in original.

³ So in original. The word "to" probably should not appear.

⁴ So in original. Probably should be "sections".

HISTORICAL AND STATUTORY NOTES

Revision Notes and Legislative Reports

1970 Acts. House Report No. 91-1146 and Conference Report No. 91-1783, see 1970 U.S. Code Cong. and Adm. News, p. 5356.

1971 Acts. House Report No. 92-258 and House Conference Report No. 92-578, see 1971 U.S. Code Cong. and Adm. News, p. 1610.

1974 Acts. House Report No. 93-1013 and Conference Report No. 93-1085, see 1974 U.S. Code Cong. and Adm. News, p. 3281.

1977 Acts. House Report No. 95-294 and House Conference Report No. 95-564, see 1977 U.S. Code Cong. and Adm. News, p. 1077.

Environmental Protection Agency

§ 50.17

(ii) A State that flags data collected during calendar years 2004–2006, pursuant to paragraph (c)(2)(iv) of this section, must adopt the procedures and requirements specified in paragraph (c)(3)(i) of this section and must include a demonstration to justify the exclusion of the data not later than the submittal of the Governor's recommendation letter on nonattainment areas.

(iii) A State that flags Pb data collected during calendar years 2006–2009, pursuant to paragraph (c)(2)(v) of this section shall, after notice and opportunity for public comment, submit to EPA a demonstration to justify exclusion of the data not later than October 15, 2010. A State that flags Pb data collected during calendar year 2010 shall, after notice and opportunity for public comment, submit to EPA a demonstration to justify the exclusion of the data not later than May 1, 2011. A state must submit the public comments it received along with its demonstration to EPA.

(iv) The demonstration to justify data exclusion shall provide evidence that:

(A) The event satisfies the criteria set forth in 40 CFR 50.1(j);

(B) There is a clear causal relationship between the measurement under consideration and the event that is claimed to have affected the air quality in the area;

(C) The event is associated with a measured concentration in excess of normal historical fluctuations, including background; and

(D) There would have been no exceedance or violation but for the event.

(v) With the submission of the demonstration, the State must document that the public comment process was followed.

[72 FR 13580, Mar. 22, 2007; 72 FR 28612, May 22, 2007; 73 FR 67051, Nov. 12, 2008; 74 FR 70598, Nov. 21, 2008; 74 FR 23312, May 19, 2009; 75 FR 6531, Feb. 9, 2010; 75 FR 35592, June 22, 2010]

§ 50.15 National primary and secondary ambient air quality standards for ozone.

(a) The level of the national 8-hour primary and secondary ambient air quality standards for ozone (O₃) is 0.075 parts per million (ppm), daily maximum

8-hour average, measured by a reference method based on appendix D to this part and designated in accordance with part 53 of this chapter or an equivalent method designated in accordance with part 53 of this chapter.

(b) The 8-hour primary and secondary O₃ ambient air quality standards are met at an ambient air quality monitoring site when the 3-year average of the annual fourth-highest daily maximum 8-hour average O₃ concentration is less than or equal to 0.075 ppm, as determined in accordance with appendix P to this part.

[73 FR 16511, Mar. 27, 2008]

§ 50.16 National primary and secondary ambient air quality standards for lead.

(a) The national primary and secondary ambient air quality standards for lead (Pb) and its compounds are 0.15 micrograms per cubic meter, arithmetic mean concentration over a 3-month period, measured in the ambient air as Pb either by:

(1) A reference method based on Appendix G of this part and designated in accordance with part 53 of this chapter or;

(2) An equivalent method designated in accordance with part 53 of this chapter.

(b) The national primary and secondary ambient air quality standards for Pb are met when the maximum arithmetic 3-month mean concentration for a 3-year period, as determined in accordance with Appendix R of this part, is less than or equal to 0.15 micrograms per cubic meter.

[73 FR 67052, Nov. 12, 2008]

§ 50.17 National primary ambient air quality standards for sulfur oxides (sulfur dioxide).

(a) The level of the national primary 1-hour annual ambient air quality standard for oxides of sulfur is 75 parts per billion (ppb, which is 1 part in 1,000,000,000), measured in the ambient air as sulfur dioxide (SO₂).

(b) The 1-hour primary standard is met at an ambient air quality monitoring site when the three-year average of the annual (99th percentile) of the daily maximum 1-hour average concentrations is less than or equal to 75

Pt. 50, App. P

40 CFR Ch. I (7-1-11 Edition)

[71 FR 61230, Oct. 17, 2006]

APPENDIX P TO PART 50—INTERPRETATION OF THE PRIMARY AND SECONDARY NATIONAL AMBIENT AIR QUALITY STANDARDS FOR OZONE

1. General

(a) This appendix explains the data handling conventions and computations necessary for determining whether the national 8-hour primary and secondary ambient air quality standards for ozone (O₃) specified in §50.15 are met at an ambient O₃ air quality monitoring site. Ozone is measured in the ambient air by a reference method based on Appendix D of this part, as applicable, and designated in accordance with part 53 of this chapter, or by an equivalent method designated in accordance with part 53 of this chapter. Data reporting, data handling, and computation procedures to be used in making comparisons between reported O₃ concentrations and the levels of the O₃ standards are specified in the following sections. Whether to exclude, retain, or make adjustments to the data affected by exceptional events, including stratospheric O₃ intrusion and other natural events, is determined by the requirements under §§50.1, 50.14 and 51.930.

(b) The terms used in this appendix are defined as follows:

8-hour average is the rolling average of eight hourly O₃ concentrations as explained in section 2 of this appendix.

Annual fourth-highest daily maximum refers to the fourth highest value measured at a monitoring site during a particular year.

Daily maximum 8-hour average concentration refers to the maximum calculated 8-hour average for a particular day as explained in section 2 of this appendix.

Design values are the metrics (i.e., statistics) that are compared to the NAAQS levels to determine compliance, calculated as shown in section 3 of this appendix.

O₃ monitoring season refers to the span of time within a calendar year when individual States are required to measure ambient O₃ concentrations as listed in part 58 Appendix D to this chapter.

Year refers to calendar year.

2. Primary and Secondary Ambient Air Quality Standards for Ozone

2.1 Data Reporting and Handling Conventions

Computing 8-hour averages. Hourly average concentrations shall be reported in parts per million (ppm) to the third decimal place, with additional digits to the right of the third decimal place truncated. Running 8-hour averages shall be computed from the hourly O₃ concentration data for each hour

of the year and shall be stored in the first, or start, hour of the 8-hour period. An 8-hour average shall be considered valid if at least 75% of the hourly averages for the 8-hour period are available. In the event that only 6 or 7 hourly averages are available, the 8-hour average shall be computed on the basis of the hours available using 6 or 7 as the divisor. 8-hour periods with three or more missing hours shall be considered valid also, if, after substituting one-half the minimum detectable limit for the missing hourly concentrations, the 8-hour average concentration is greater than the level of the standard. The computed 8-hour average O₃ concentrations shall be reported to three decimal places (the digits to the right of the third decimal place are truncated, consistent with the data handling procedures for the reported data).

Daily maximum 8-hour average concentrations. (a) There are 24 possible running 8-hour average O₃ concentrations for each calendar day during the O₃ monitoring season. The daily maximum 8-hour concentration for a given calendar day is the highest of the 24 possible 8-hour average concentrations computed for that day. This process is repeated, yielding a daily maximum 8-hour average O₃ concentration for each calendar day with ambient O₃ monitoring data. Because the 8-hour averages are recorded in the start hour, the daily maximum 8-hour concentrations from two consecutive days may have some hourly concentrations in common. Generally, overlapping daily maximum 8-hour averages are not likely, except in those non-urban monitoring locations with less pronounced diurnal variation in hourly concentrations.

(b) An O₃ monitoring day shall be counted as a valid day if valid 8-hour averages are available for at least 75% of possible hours in the day (i.e., at least 18 of the 24 averages). In the event that less than 75% of the 8-hour averages are available, a day shall also be counted as a valid day if the daily maximum 8-hour average concentration for that day is greater than the level of the standard.

2.2 Primary and Secondary Standard-related Summary Statistic

The standard-related summary statistic is the annual fourth-highest daily maximum 8-hour O₃ concentration, expressed in parts per million, averaged over three years. The 3-year average shall be computed using the three most recent, consecutive calendar years of monitoring data meeting the data completeness requirements described in this appendix. The computed 3-year average of the annual fourth-highest daily maximum 8-hour average O₃ concentrations shall be reported to three decimal places (the digits to the right of the third decimal place are truncated, consistent with the data handling procedures for the reported data).

Environmental Protection Agency

Pt. 50, App. P

2.3 Comparisons with the Primary and Secondary O₃ Standards

(a) The primary and secondary O₃ ambient air quality standards are met at an ambient air quality monitoring site when the 3-year average of the annual fourth-highest daily maximum 8-hour average O₃ concentration is less than or equal to 0.075 ppm.

(b) This comparison shall be based on three consecutive, complete calendar years of air quality monitoring data. This requirement is met for the 3-year period at a monitoring site if daily maximum 8-hour average concentrations are available for at least 90% of the days within the O₃ monitoring season, on average, for the 3-year period, with a minimum data completeness requirement in any one year of at least 75% of the days within the O₃ monitoring season. When computing whether the minimum data completeness requirements have been met, meteorological or ambient data may be sufficient to dem-

onstrate that meteorological conditions on missing days were not conducive to concentrations above the level of the standard. Missing days assumed less than the level of the standard are counted for the purpose of meeting the data completeness requirement, subject to the approval of the appropriate Regional Administrator.

(c) Years with concentrations greater than the level of the standard shall be included even if they have less than complete data. Thus, in computing the 3-year average fourth maximum concentration, calendar years with less than 75% data completeness shall be included in the computation if the 3-year average fourth-highest 8-hour concentration is greater than the level of the standard.

(d) Comparisons with the primary and secondary O₃ standards are demonstrated by examples 1 and 2 in paragraphs (d)(1) and (d)(2) respectively as follows:

EXAMPLE 1—AMBIENT MONITORING SITE ATTAINING THE PRIMARY AND SECONDARY O₃ STANDARDS

Year	Percent valid days (within the required monitoring season)	1st Highest daily max 8-hour Conc. (ppm)	2nd Highest daily max 8-hour Conc. (ppm)	3rd Highest daily max 8-hour Conc. (ppm)	4th Highest daily max 8-hour Conc. (ppm)	5th Highest daily max 8-hour Conc. (ppm)
2004	100	0.092	0.090	0.085	0.079	0.078
2005	96	0.084	0.083	0.075	0.072	0.070
2006	98	0.080	0.079	0.077	0.076	0.060
Average	98				0.075	

(1) As shown in Example 1, this monitoring site meets the primary and secondary O₃ standards because the 3-year average of the annual fourth-highest daily maximum 8-hour average O₃ concentrations (i.e., 0.075666 * * * ppm, truncated to 0.075 ppm) is less than or equal to 0.075 ppm. The data completeness requirement is also met because the average

percent of days within the required monitoring season with valid ambient monitoring data is greater than 90%, and no single year has less than 75% data completeness. In Example 1, the individual 8-hour averages used to determine the annual fourth maximum have also been truncated to the third decimal place.

EXAMPLE 2—AMBIENT MONITORING SITE FAILING TO MEET THE PRIMARY AND SECONDARY O₃ STANDARDS

Year	Percent valid days (within the required monitoring season)	1st Highest daily max 8-hour Conc. (ppm)	2nd Highest daily max 8-hour Conc. (ppm)	3rd Highest daily max 8-hour Conc. (ppm)	4th Highest daily max 8-hour Conc. (ppm)	5th Highest daily max 8-hour Conc. (ppm)
2004	96	0.105	0.103	0.103	0.103	0.102
2005	74	0.104	0.103	0.092	0.091	0.088
2006	98	0.103	0.101	0.101	0.095	0.094
Average	89				0.096	

As shown in Example 2, the primary and secondary O₃ standards are not met for this monitoring site because the 3-year average of the fourth-highest daily maximum 8-hour average O₃ concentrations (i.e., 0.096333 * * * ppm, truncated to 0.096 ppm) is greater than

0.075 ppm, even though the data capture is less than 75% and the average data capture for the 3 years is less than 90% within the required monitoring season. In Example 2, the individual 8-hour averages used to determine

Pt. 50, App. Q

40 CFR Ch. I (7-1-11 Edition)

the annual fourth maximum have also been truncated to the third decimal place.

3. Design Values for Primary and Secondary Ambient Air Quality Standards for Ozone

The air quality design value at a monitoring site is defined as that concentration that when reduced to the level of the standard ensures that the site meets the standard. For a concentration-based standard, the air quality design value is simply the standard-related test statistic. Thus, for the primary and secondary standards, the 3-year average annual fourth-highest daily maximum 8-hour average O₃ concentration is also the air quality design value for the site.

[73 FR 16511, Mar. 27, 2008]

APPENDIX Q TO PART 50—REFERENCE METHOD FOR THE DETERMINATION OF LEAD IN PARTICULATE MATTER AS PM₁₀ COLLECTED FROM AMBIENT AIR

This Federal Reference Method (FRM) draws heavily from the specific analytical protocols used by the U.S. EPA.

1. Applicability and Principle

1.1 This method provides for the measurement of the lead (Pb) concentration in particulate matter that is 10 micrometers or less (PM₁₀) in ambient air. PM₁₀ is collected on an acceptable (see section 6.1.2) 46.2 mm diameter polytetrafluoroethylene (PTFE) filter for 24 hours using active sampling at local conditions with a low-volume air sampler. The low-volume sampler has an average flow rate of 16.7 liters per minute (Lpm) and total sampled volume of 24 cubic meters (m³) of air. The analysis of Pb in PM₁₀ is performed on each individual 24-hour sample. Gravimetric mass analysis of PM_{10c} filters is not required for Pb analysis. For the purpose of this method, PM₁₀ is defined as particulate matter having an aerodynamic diameter in the nominal range of 10 micrometers (10 μm) or less.

1.2 For this reference method, PM₁₀ shall be collected with the PM_{10c} federal reference method (FRM) sampler as described in Appendix O to Part 50 using the same sample period, measurement procedures, and requirements specified in Appendix L of Part 50. The PM_{10c} sampler is also being used for measurement of PM_{10-2.5} mass by difference and as such, the PM_{10c} sampler must also meet all of the performance requirements specified for PM_{2.5} in Appendix L. The concentration of Pb in the atmosphere is determined in the total volume of air sampled and expressed in micrograms per cubic meter (μg/m³) at local temperature and pressure conditions.

1.3 The FRM will serve as the basis for approving Federal Equivalent Methods (FEMs) as specified in 40 CFR Part 53 (Reference and

Equivalent Methods). This FRM specifically applies to the analysis of Pb in PM₁₀ filters collected with the PM_{10c} sampler. If these filters are analyzed for elements other than Pb, then refer to the guidance provided in the EPA Inorganic Compendium Method IO-3.3 (Reference 1 of section 8) for multi-element analysis.

1.4 The PM_{10c} air sampler draws ambient air at a constant volumetric flow rate into a specially shaped inlet and through an inertial particle size separator, where the suspended particulate matter in the PM₁₀ size range is separated for collection on a PTFE filter over the specified sampling period. The Pb content of the PM₁₀ sample is analyzed by energy-dispersive X-ray fluorescence spectrometry (EDXRF). Energy-dispersive X-ray fluorescence spectrometry provides a means for identification of an element by measurement of its characteristic X-ray emission energy. The method allows for quantification of the element by measuring the intensity of X-rays emitted at the characteristic photon energy and then relating this intensity to the elemental concentration. The number or intensity of X-rays produced at a given energy provides a measure of the amount of the element present by comparisons with calibration standards. The X-rays are detected and the spectral signals are acquired and processed with a personal computer. EDXRF is commonly used as a non-destructive method for quantifying trace elements in PM. A detailed explanation of quantitative X-ray spectrometry is described in references 2, 3 and 4.

1.5 Quality assurance (QA) procedures for the collection of monitoring data are contained in Part 58, Appendix A.

2. *PM₁₀ Pb Measurement Range and Detection Limit.* The values given below in section 2.1 and 2.2 are typical of the method capabilities. Absolute values will vary for individual situations depending on the instrument, detector age, and operating conditions used. Data are typically reported in ng/m³ for ambient air samples; however, for this reference method, data will be reported in μg/m³ at local temperature and pressure conditions.

2.1 *EDXRF Pb Measurement Range.* The typical ambient air measurement range is 0.001 to 30 μg Pb/m³, assuming an upper range calibration standard of about 60 μg Pb per square centimeter (cm²), a filter deposit area of 11.86 cm², and an air volume of 24 m³. The top range of the EDXRF instrument is much greater than what is stated here. The top measurement range of quantification is defined by the level of the high concentration calibration standard used and can be increased to expand the measurement range as needed.

2.2 *Detection Limit (DL).* A typical estimate of the one-sigma detection limit (DL) is about 2 ng Pb/cm² or 0.001 μg Pb/m³, assuming a filter size of 46.2 mm (filter deposit

Pt. 58, App. G

40 CFR Ch. I (7-1-11 Edition)

31. Technical Assistance Document For Sampling and Analysis of Ozone Precursors. Atmospheric Research and Exposure Assessment Laboratory, U.S. Environmental Protection Agency, Research Triangle Park, NC 27711. EPA 600/8-91-215. October 1991.

32. Quality Assurance Handbook for Air Pollution Measurement Systems: Volume IV. Meteorological Measurements. Atmospheric Research and Exposure Assessment Laboratory, U.S. Environmental Protection Agency, Research Triangle Park, NC 27711. EPA 600/4-90-0003. August 1989.

33. On-Site Meteorological Program Guidance for Regulatory Modeling Applications. Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, NC 27711. EPA 450/4-87-013. June 1987F.

[71 FR 61323, Oct. 17, 2006, as amended at 75 FR 6535, Feb. 9, 2010]

APPENDIX F TO PART 58 [RESERVED]

APPENDIX G TO PART 58—UNIFORM AIR QUALITY INDEX (AQI) AND DAILY REPORTING

GENERAL REQUIREMENTS

1. What is the AQI?
2. Why report the AQI?
3. Must I report the AQI?
4. What goes into my AQI report?
5. Is my AQI report for my MSA only?
6. How do I get my AQI report to the public?
7. How often must I report the AQI?
8. May I make exceptions to these reporting requirements?

CALCULATION

9. How Does the AQI Relate to Air Pollution Levels?
10. What Monitors Should I Use To Get the Pollutant Concentrations for Calculating the AQI?
11. Do I have to forecast the AQI?
12. How Do I Calculate the AQI?

BACKGROUND AND REFERENCE MATERIALS

13. What Additional Information Should I Know?

GENERAL REQUIREMENTS

1. What Is the AQI?

The AQI is a tool that simplifies reporting air quality to the general public. The AQI incorporates into a single index concentrations of 5 criteria pollutants: ozone (O₃), particulate matter (PM), carbon monoxide (CO), sulfur dioxide (SO₂), and nitrogen dioxide (NO₂). The scale of the index is divided into general categories that are associated with health messages.

2. Why Report the AQI?

The AQI offers various advantages:

- a. It is simple to create and understand.
- b. It conveys the health implications of air quality.
- c. It promotes uniform use throughout the country.

3. Must I Report the AQI?

You must report the AQI daily if yours is a metropolitan statistical area (MSA) with a population over 350,000.

4. What Goes Into My AQI Report?

i. Your AQI report must contain the following:

- a. The reporting area(s) (the MSA or subdivision of the MSA).
- b. The reporting period (the day for which the AQI is reported).
- c. The critical pollutant (the pollutant with the highest index value).
- d. The AQI (the highest index value).
- e. The category descriptor and index value associated with the AQI and, if you choose to report in a color format, the associated color. Use only the following descriptors and colors for the six AQI categories:

TABLE 1—AQI CATEGORIES

For this AQI	Use this descriptor	And this color ¹
0 to 50	“Good”	Green.
51 to 100	“Moderate”	Yellow.
101 to 150	“Unhealthy for Sensitive Groups”.	Orange.
151 to 200	“Unhealthy”	Red.
201 to 300	“Very Unhealthy”	Purple.
301 and above	“Hazardous”	Maroon. ¹

¹ Specific colors can be found in the most recent reporting guidance (Guideline for Public Reporting of Daily Air Quality—Air Quality Index (AQI)).

f. The pollutant specific sensitive groups for any reported index value greater than 100. Use the following sensitive groups for each pollutant:

When this pollutant has an index value above 100	Report these sensitive groups * * *
Ozone	Children and people with asthma are the groups most at risk.
PM _{2.5}	People with respiratory or heart disease, the elderly and children are the groups most at risk.
PM ₁₀	People with respiratory disease are the group most at risk.

Environmental Protection Agency

Pt. 58, App. G

When this
pollutant
has an
index
value
above 100

Report these sensitive groups . . .

CO People with heart disease are the group most at risk.

SO₂ People with asthma are the group most at risk.

NO₂ Children and people with respiratory disease are the groups most at risk.

ii. When appropriate, your AQI report may also contain the following:

- a. Appropriate health and cautionary statements.
- b. The name and index value for other pollutants, particularly those with an index value greater than 100.
- c. The index values for sub-areas of your MSA.
- d. Causes for unusual AQI values.
- e. Actual pollutant concentrations.

5. Is My AQI Report for My MSA Only?

Generally, your AQI report applies to your MSA only. However, if a significant air quality problem exists (AQI greater than 100) in areas significantly impacted by your MSA but not in it (for example, O₃ concentrations are often highest downwind and outside an urban area), you should identify these areas and report the AQI for these areas as well.

6. How Do I Get My AQI Report to the Public?

You must furnish the daily report to the appropriate news media (radio, television, and newspapers). You must make the daily report publicly available at one or more places of public access, or by any other means, including a recorded phone message, a public Internet site, or facsimile transmission. When the AQI value is greater than 100, it is particularly critical that the reporting to the various news media be as extensive as possible. At a minimum, it should include notification to the media with the largest market coverages for the area in question.

7. How Often Must I Report the AQI?

You must report the AQI at least 5 days per week. Exceptions to this requirement are in section 8 of this appendix.

8. May I Make Exceptions to These Reporting Requirements?

- i. If the index value for a particular pollutant remains below 50 for a season or year, then you may exclude the pollutant from your calculation of the AQI in section 12.
- ii. If all index values remain below 50 for a year, then you may report the AQI at your discretion. In subsequent years, if pollutant

levels rise to where the AQI would be above 50, then the AQI must be reported as required in sections 3, 4, 6, and 7 of this appendix.

CALCULATION

9. How Does the AQI Relate to Air Pollution Levels?

For each pollutant, the AQI transforms ambient concentrations to a scale from 0 to 500. The AQI is keyed as appropriate to the national ambient air quality standards (NAAQS) for each pollutant. In most cases, the index value of 100 is associated with the numerical level of the short-term (*i.e.*, averaging time of 24-hours or less) standard for each pollutant. The index value of 50 is associated with one of the following: the numerical level of the annual standard for a pollutant, if there is one; one-half the level of the short-term standard for the pollutant; or the level at which it is appropriate to begin to provide guidance on cautionary language. Higher categories of the index are based on increasingly serious health effects that affect increasing proportions of the population. An index value is calculated each day for each pollutant (as described in section 12 of this appendix), unless that pollutant is specifically excluded (*see* section 8 of this appendix). The pollutant with the highest index value for the day is the "critical" pollutant, and must be included in the daily AQI report. As a result, the AQI for any given day is equal to the index value of the critical pollutant for that day. For the purposes of reporting the AQI, the indexes for PM₁₀ and PM_{2.5} are to be considered separately.

10. What Monitors Should I Use To Get the Pollutant Concentrations for Calculating the AQI?

You must use concentration data from population-oriented State/Local Air Monitoring Station (SLAMS) or parts of the SLAMS required by 40 CFR 58.10 for each pollutant except PM. For PM, calculate and report the AQI on days for which you have measured air quality data (*e.g.*, from continuous PM_{2.5} monitors required in Appendix D to this part). You may use PM measurements from monitors that are not reference or equivalent methods (for example, continuous PM₁₀ or PM_{2.5} monitors). Detailed guidance for relating non-approved measurements to approved methods by statistical linear regression is referenced in section 13 below.

11. Do I Have to Forecast the AQI?

You should forecast the AQI to provide timely air quality information to the public, but this is not required. If you choose to forecast the AQI, then you may consider both long-term and short-term forecasts.

Pt. 58, App. G

40 CFR Ch. I (7-1-11 Edition)

You can forecast the AQI at least 24-hours in advance using the most accurate and reasonable procedures considering meteorology, topography, availability of data, and forecasting expertise. The document "Guideline for Developing an Ozone Forecasting Program" (the Forecasting Guidance) will help you start a forecasting program. You can also issue short-term forecasts by predicting 8-hour ozone values from 1-hour ozone values using methods suggested in the Reporting Guidance, "Guideline for Public Reporting of Daily Air Quality."

12. How Do I Calculate the AQI?

- i. The AQI is the highest value calculated for each pollutant as follows:
 - a. Identify the highest concentration among all of the monitors within each reporting area and truncate the pollutant concentration to one more than the significant digits used to express the level of the NAAQS for that pollutant. This is equivalent to the rounding conventions used in the NAAQS.
 - b. Using Table 2, find the two breakpoints that contain the concentration.
 - c. Using Equation 1, calculate the index.
 - d. Round the index to the nearest integer.

TABLE 2—BREAKPOINTS FOR THE AQI

These breakpoints							Equal these AQI's	
O ₃ (ppm) 8-hour	O ₃ (ppm) 1-hour ¹	PM _{2.5} (µg/m ³)	PM ₁₀ (µg/m ³)	CO (ppm)	SO ₂ (ppm) 1-hour	NO ₂ (ppm) 1-hour	AQI	Category
0.000–0.059	0.125–0.164	0.0–15.4	0–54	0.0–4.4	0–0.035	0–0.053	0–50	Good.
0.060–0.075		15.5–40.4	55–154	4.5–9.4	0.036–0.075	0.054–0.100	51–100	Moderate.
0.076–0.095		40.5–65.4	155–254	9.5–12.4	0.076–0.185	0.101–0.360	101–150	Unhealthy for Sensitive Groups.
0.096–0.115	0.165–0.204	³ 65.5–150.4	255–354	12.5–15.4	⁴ 0.186–0.304	0.361–0.64	151–200	Unhealthy.
0.116–0.374	0.205–0.404	³ 150.5–250.4	355–424	15.5–30.4	⁴ 0.305–0.604	0.65–1.24	201–300	Very Unhealthy.
(²)	0.405–0.504	³ 250.5–350.4	425–504	30.5–40.4	⁴ 0.605–0.804	1.25–1.64	301–400	Hazardous.
(²)	0.505–0.604	³ 350.5–500.4	505–604	40.5–50.4	⁴ 0.805–1.004	1.65–2.04	401–500	

¹ Areas are generally required to report the AQI based on 8-hour ozone values. However, there are a small number of areas where an AQI based on 1-hour ozone values would be more precautionary. In these cases, in addition to calculating the 8-hour ozone index value, the 1-hour ozone index value may be calculated, and the maximum of the two values reported.

² 8-hour O₃ values do not define higher AQI values (≥301). AQI values of 301 or greater are calculated with 1-hour O₃ concentrations.

³ If a different SHL for PM_{2.5} is promulgated, these numbers will change accordingly.

⁴ 1-hr SO₂ values do not define higher AQI values (≥200). AQI values of 200 or greater are calculated with 24-hour SO₂ concentrations.

ii. If the concentration is equal to a breakpoint, then the index is equal to the corresponding index value in Table 2. However, Equation 1 can still be used. The results will be equal. If the concentration is between two breakpoints, then calculate the index of that pollutant with Equation 1. You must also

note that in some areas, the AQI based on 1-hour O₃ will be more precautionary than using 8-hour values (see footnote 1 to Table 2). In these cases, you may use 1-hour values as well as 8-hour values to calculate index values and then use the maximum index value as the AQI for O₃.

$$I_p = \frac{I_{Hi} - I_{Lo}}{BP_{Hi} - BP_{Lo}} (C_p - BP_{Lo}) + I_{Lo} \quad (\text{Equation 1})$$

Where:

- I_p = the index value for pollutant_p
- C_p = the truncated concentration of pollutant_p
- BP_{Hi} = the breakpoint that is greater than or equal to C_p
- BP_{Lo} = the breakpoint that is less than or equal to C_p
- I_{Hi} = the AQI value corresponding to BP_{Hi}
- I_{Lo} = the AQI value corresponding to BP_{Lo}.

iii. If the concentration is larger than the highest breakpoint in Table 2 then you may use the last two breakpoints in Table 2 when you apply Equation 1.

Example

iv. Using Table 2 and Equation 1, calculate the index value for each of the pollutants measured and select the one that produces the highest index value for the AQI. For example, if you observe a PM₁₀ value of 210 µg/

Environmental Protection Agency

Pt. 59

m³, a 1-hour O₃ value of 0.156 ppm, and an 8-hour O₃ value of 0.130 ppm, then do this:

a. Find the breakpoints for PM₁₀ at 210 µg/m³ as 155 µg/m³ and 254 µg/m³, corresponding to index values 101 and 150;

b. Find the breakpoints for 1-hour O₃ at 0.156 ppm as 0.125 ppm and 0.164 ppm, corresponding to index values 101 and 150;

c. Find the breakpoints for 8-hour O₃ at 0.130 ppm as 0.116 ppm and 0.374 ppm, corresponding to index values 201 and 300;

d. Apply Equation 1 for 210 µg/m³, PM₁₀:

$$\frac{150 - 101}{254 - 155} (210 - 155) + 101 = 128$$

e. Apply Equation 1 for 0.156 ppm, 1-hour O₃:

$$\frac{150 - 101}{0.164 - 0.125} (0.156 - 0.125) + 101 = 140$$

f. Apply Equation 1 for 0.130 ppm, 8-hour O₃:

$$\frac{300 - 201}{0.374 - 0.116} (0.130 - 0.116) + 201 = 206$$

g. Find the maximum, 206. This is the AQI. The minimal AQI report would read:

v. Today, the AQI for my city is 206 which is Very Unhealthy, due to ozone. Children and people with asthma are the groups most at risk.

13. What Additional Information Should I Know?

The EPA has developed a computer program to calculate the AQI for you. The program prompts for inputs, and it displays all the pertinent information for the AQI (the index value, color, category, sensitive group, health effects, and cautionary language). The EPA has also prepared a brochure on the AQI that explains the index in detail (The Air Quality Index), Reporting Guidance (Guideline for Public Reporting of Daily Air Quality) that provides associated health effects and cautionary statements, and Forecasting Guidance (Guideline for Developing an Ozone Forecasting Program) that explains the steps necessary to start an air pollution forecasting program. You can download the program and the guidance documents at www.airnow.gov. Reference for relating non-approved PM measurements to approved methods (Eberly, S., T. Fitz-Simons, T. Hanley, L. Weinstock., T. Tamanini, G. Denniston, B. Lambeth, E. Michel, S. Bortnick. Data Quality Objectives (DQOs) For Relating Federal Reference Method (FRM) and Continuous PM_{2.5} Measurements to Report an Air Quality Index (AQI). U.S. Environmental Protection Agen-

cy, research Triangle Park, NC. EPA-454/B-02-002, November 2002) can be found on the Ambient Monitoring Technology Information Center (AMTIC) Web site, <http://www.epa.gov/ttnamti/>.

[64 FR 42547, Aug. 4, 1999, as amended at 73 FR 16513, Mar. 27, 2008; 75 FR 6537, Feb. 9, 2010; 75 FR 35602, June 22, 2010]

PART 59—NATIONAL VOLATILE ORGANIC COMPOUND EMISSION STANDARDS FOR CONSUMER AND COMMERCIAL PRODUCTS

Sec.

Subpart A—General

59.1 Final determinations under Section 183(e)(3)(C) of the CAA.

Subpart B—National Volatile Organic Compound Emission Standards for Automobile Refinish Coatings

- 59.100 Applicability and designation of regulated entity.
- 59.101 Definitions.
- 59.102 Standards.
- 59.103 Container labeling requirements.
- 59.104 Compliance provisions.
- 59.105 Reporting requirements.
- 59.106 Variance.
- 59.107 Addresses of EPA Regional offices.

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List of Subjects

40 CFR Part 50

Environmental protection, Air pollution control, Carbon monoxide, Lead, Nitrogen dioxide, Ozone, Particulate matter, Sulfur oxides.

40 CFR Part 58

Environmental protection, Air pollution control, Reporting and recordkeeping requirements.

Dated: March 12, 2008.

Stephen L. Johnson,
Administrator.

■ For the reasons stated in the preamble, title 40, chapter I of the code of Federal regulations is to be amended as follows:

PART 50—NATIONAL PRIMARY AND SECONDARY AMBIENT AIR QUALITY STANDARDS

■ 1. The authority citation for part 50 continues to read as follows:

Authority: 42 U.S.C. 7401, *et seq.*

■ 2. Section 50.15 is added to read as follows:

§ 50.15 National primary and secondary ambient air quality standards for ozone.

(a) The level of the national 8-hour primary and secondary ambient air quality standards for ozone (O₃) is 0.075 parts per million (ppm), daily maximum 8-hour average, measured by a reference method based on Appendix D to this part and designated in accordance with part 53 of this chapter or an equivalent method designated in accordance with part 53 of this chapter.

(b) The 8-hour primary and secondary O₃ ambient air quality standards are met at an ambient air quality monitoring site when the 3-year average of the annual fourth-highest daily maximum 8-hour average O₃ concentration is less than or equal to 0.075 ppm, as determined in accordance with Appendix P to this part.

■ 3. Appendix P is added to read as follows:

Appendix P to Part 50—Interpretation of the Primary and Secondary National Ambient Air Quality Standards for Ozone

1. General

(a) This appendix explains the data handling conventions and computations necessary for determining whether the national 8-hour primary and secondary ambient air quality standards for ozone (O₃) specified in § 50.15 are met at an ambient O₃ air quality monitoring site. Ozone is measured in the ambient air by a reference method based on Appendix D of this part, as applicable, and designated in accordance with part 53 of this chapter, or by an equivalent method designated in accordance with part 53 of this chapter. Data reporting, data handling, and computation procedures to be used in making comparisons between reported O₃ concentrations and the levels of the O₃ standards are specified in the following sections. Whether to exclude, retain, or make adjustments to the data affected by exceptional events, including stratospheric O₃ intrusion and other natural events, is determined by the requirements under §§ 50.1, 50.14 and 51.930.

(b) The terms used in this appendix are defined as follows:

8-hour average is the rolling average of eight hourly O₃ concentrations as explained in section 2 of this appendix.

Annual fourth-highest daily maximum refers to the fourth highest value measured at a monitoring site during a particular year.

Daily maximum 8-hour average concentration refers to the maximum calculated 8-hour average for a particular day as explained in section 2 of this appendix.

Design values are the metrics (i.e., statistics) that are compared to the NAAQS levels to determine compliance, calculated as shown in section 3 of this appendix.

O₃ monitoring season refers to the span of time within a calendar year when individual States are required to measure ambient O₃ concentrations as listed in part 58 Appendix D to this chapter.

Year refers to calendar year.

2. Primary and Secondary Ambient Air Quality Standards for Ozone

2.1 Data Reporting and Handling Conventions

Computing 8-hour averages. Hourly average concentrations shall be reported in parts per million (ppm) to the third decimal place, with additional digits to the right of the third decimal place truncated. Running 8-hour averages shall be computed from the hourly O₃ concentration data for each hour of the year and shall be stored in the first, or start, hour of the 8-hour period. An 8-hour average shall be considered valid if at least 75% of the hourly averages for the 8-hour period are available. In the event that only 6 or 7 hourly averages are available, the 8-hour average shall be computed on the basis of the hours available using 6 or 7 as the divisor. 8-hour periods with three or more missing hours shall be considered valid also, if, after substituting one-half the minimum detectable limit for the missing hourly concentrations, the 8-hour average concentration is greater

than the level of the standard. The computed 8-hour average O₃ concentrations shall be reported to three decimal places (the digits to the right of the third decimal place are truncated, consistent with the data handling procedures for the reported data).

Daily maximum 8-hour average concentrations. (a) There are 24 possible running 8-hour average O₃ concentrations for each calendar day during the O₃ monitoring season. The daily maximum 8-hour concentration for a given calendar day is the highest of the 24 possible 8-hour average concentrations computed for that day. This process is repeated, yielding a daily maximum 8-hour average O₃ concentration for each calendar day with ambient O₃ monitoring data. Because the 8-hour averages are recorded in the start hour, the daily maximum 8-hour concentrations from two consecutive days may have some hourly concentrations in common. Generally, overlapping daily maximum 8-hour averages are not likely, except in those non-urban monitoring locations with less pronounced diurnal variation in hourly concentrations.

(b) An O₃ monitoring day shall be counted as a valid day if valid 8-hour averages are available for at least 75% of possible hours in the day (i.e., at least 18 of the 24 averages). In the event that less than 75% of the 8-hour averages are available, a day shall also be

counted as a valid day if the daily maximum 8-hour average concentration for that day is greater than the level of the standard.

2.2 Primary and Secondary Standard-related Summary Statistic

The standard-related summary statistic is the annual fourth-highest daily maximum 8-hour O₃ concentration, expressed in parts per million, averaged over three years. The 3-year average shall be computed using the three most recent, consecutive calendar years of monitoring data meeting the data completeness requirements described in this appendix. The computed 3-year average of the annual fourth-highest daily maximum 8-hour average O₃ concentrations shall be reported to three decimal places (the digits to the right of the third decimal place are truncated, consistent with the data handling procedures for the reported data).

2.3 Comparisons with the Primary and Secondary Ozone Standards

(a) The primary and secondary O₃ ambient air quality standards are met at an ambient air quality monitoring site when the 3-year average of the annual fourth-highest daily maximum 8-hour average O₃ concentration is less than or equal to 0.075 ppm.

(b) This comparison shall be based on three consecutive, complete calendar years of air quality monitoring data. This requirement is

met for the 3-year period at a monitoring site if daily maximum 8-hour average concentrations are available for at least 90% of the days within the O₃ monitoring season, on average, for the 3-year period, with a minimum data completeness requirement in any one year of at least 75% of the days within the O₃ monitoring season. When computing whether the minimum data completeness requirements have been met, meteorological or ambient data may be sufficient to demonstrate that meteorological conditions on missing days were not conducive to concentrations above the level of the standard. Missing days assumed less than the level of the standard are counted for the purpose of meeting the data completeness requirement, subject to the approval of the appropriate Regional Administrator.

(c) Years with concentrations greater than the level of the standard shall be included even if they have less than complete data. Thus, in computing the 3-year average fourth maximum concentration, calendar years with less than 75% data completeness shall be included in the computation if the 3-year average fourth-highest 8-hour concentration is greater than the level of the standard.

(d) Comparisons with the primary and secondary O₃ standards are demonstrated by examples 1 and 2 in paragraphs (d)(1) and (d)(2) respectively as follows:

EXAMPLE 1.—AMBIENT MONITORING SITE ATTAINING THE PRIMARY AND SECONDARY O₃ STANDARDS

Year	Percent valid days (within the required monitoring season)	1st Highest daily max 8-hour Conc. (ppm)	2nd Highest daily max 8-hour Conc. (ppm)	3rd Highest daily max 8-hour Conc. (ppm)	4th Highest daily max 8-hour Conc. (ppm)	5th Highest daily max 8-hour Conc. (ppm)
2004	100	0.092	0.090	0.085	0.079	0.078
2005	96	0.084	0.083	0.075	0.072	0.070
2006	98	0.080	0.079	0.077	0.076	0.060
Average	98	.....	.....	.....	0.075	.....

(1) As shown in Example 1, this monitoring site meets the primary and secondary O₃ standards because the 3-year average of the annual fourth-highest daily maximum 8-hour average O₃ concentrations (i.e., 0.075666 * * * ppm, truncated to 0.075

ppm) is less than or equal to 0.075 ppm. The data completeness requirement is also met because the average percent of days within the required monitoring season with valid ambient monitoring data is greater than 90%, and no single year has less than 75% data

completeness. In Example 1, the individual 8-hour averages used to determine the annual fourth maximum have also been truncated to the third decimal place.

EXAMPLE 2.—AMBIENT MONITORING SITE FAILING TO MEET THE PRIMARY AND SECONDARY O₃ STANDARDS

Year	Percent valid days (within the required monitoring season)	1st Highest daily max 8-hour Conc. (ppm)	2nd Highest daily max 8-hour Conc. (ppm)	3rd Highest daily max 8-hour Conc. (ppm)	4th Highest daily max 8-hour Conc. (ppm)	5th Highest daily max 8-hour Conc. (ppm)
2004	96	0.105	0.103	0.103	0.103	0.102
2005	74	0.104	0.103	0.092	0.091	0.088
2006	98	0.103	0.101	0.101	0.095	0.094
Average	89	.....	.....	.....	0.096	.....

As shown in Example 2, the primary and secondary O₃ standards are not met for this monitoring site because the 3-year average of the fourth-highest daily maximum 8-hour average O₃ concentrations (i.e., 0.096333

* * * ppm, truncated to 0.096 ppm) is greater than 0.075 ppm, even though the data capture is less than 75% and the average data capture for the 3 years is less than 90% within the required monitoring season. In

Example 2, the individual 8-hour averages used to determine the annual fourth maximum have also been truncated to the third decimal place.

3. Design Values for Primary and Secondary Ambient Air Quality Standards for Ozone

The air quality design value at a monitoring site is defined as that concentration that when reduced to the level of the standard ensures that the site meets the standard. For a concentration-based standard, the air quality design value is simply the standard-related test statistic. Thus, for the primary and secondary standards, the 3-year average annual fourth-highest daily maximum 8-hour average O₃ concentration is also the air quality design value for the site.

PART 58—AMBIENT AIR QUALITY SURVEILLANCE

■ 4. The authority citation of part 58 continues to read as follows:

Authority: 42 U.S.C. 7403, 7410, 7601(a), 7611, and 7619.

■ 5. Appendix G to Part 58 is amended as follows:

- a. By revising section 9.
- b. By revising section 10.
- c. By revising section 12.
- d. By revising section 13.

Appendix G to Part 58—Uniform Air Quality Index (AQI) and Daily Reporting

* * * * *

9. How Does the AQI Relate to Air Pollution Levels?

For each pollutant, the AQI transforms ambient concentrations to a scale from 0 to 500. The AQI is keyed as appropriate to the national ambient air quality standards (NAAQS) for each pollutant. In most cases, the index value of 100 is associated with the numerical level of the short-term standard (i.e., averaging time of 24-hours or less) for each pollutant. A different approach is taken for NO₂, for which no short-term standard has been established. The index value of 50 is associated with the numerical level of the annual standard for a pollutant, if there is one, at one-half the level of the short-term standard for the pollutant, or at the level at which it is appropriate to begin to provide guidance on cautionary language. Higher categories of the index are based on increasingly serious health effects and increasing proportions of the population that are likely to be affected. The index is related to other air pollution concentrations through linear interpolation based on these levels. The AQI is equal to the highest of the numbers corresponding to each pollutant. For the purposes of reporting the AQI, the sub-indices for PM₁₀ and PM_{2.5} are to be considered separately. The pollutant responsible for the highest index value (the reported AQI) is called the "critical" pollutant.

10. What Monitors Should I Use To Get the Pollutant Concentrations for Calculating the AQI?

You must use concentration data from population-oriented State/Local Air Monitoring Station (SLAMS) or parts of the SLAMS required by 40 CFR 58.10 for each pollutant except PM. For PM, calculate and report the AQI on days for which you have measured air quality data (e.g., from continuous PM_{2.5} monitors required in Appendix D to this part). You may use PM measurements from monitors that are not reference or equivalent methods (for example, continuous PM₁₀ or PM_{2.5} monitors). Detailed guidance for relating non-approved measurements to approved methods by statistical linear regression is referenced in section 13 below.

* * * * *

12. How Do I Calculate the AQI?

- i. The AQI is the highest value calculated for each pollutant as follows:
 - a. Identify the highest concentration among all of the monitors within each reporting area and truncate the pollutant concentration to one more than the significant digits used to express the level of the NAAQS for that pollutant. This is equivalent to the rounding conventions used in the NAAQS.
 - b. Using Table 2, find the two breakpoints that contain the concentration.
 - c. Using Equation 1, calculate the index.
 - d. Round the index to the nearest integer.

TABLE 2.—BREAKPOINTS FOR THE AQI

These breakpoints							Equal these AQI's	
O ₃ (ppm) 8-hour	O ₃ (ppm) 1-hour ¹	PM _{2.5} (µg/m ³)	PM ₁₀ (µg/m ³)	CO (ppm)	SO ₂ (ppm)	NO ₂ (ppm)	AQI	Category
0.000–0.059	.....	0.0–15.4	0–54	0.0–4.4	0.000–0.034	(³)	0–50	Good.
0.060–0.075	.....	15.5–40.4	55–154	4.5–9.4	0.035–0.144	(³)	51–100	Moderate.
0.076–0.095	0.125–0.164	40.5–65.4	155–254	9.5–12.4	0.145–0.224	(³)	101–150	Unhealthy for Sensitive Groups.
0.096–0.115	0.165–0.204	⁴ 65.5–150.4	255–354	12.5–15.4	0.225–0.304	(³)	151–200	Unhealthy.
0.116–0.374	0.205–0.404	⁴ 150.5–250.4	355–424	15.5–30.4	0.305–0.604	0.65–1.24	201–300	Very Unhealthy.
(²)	0.405–0.504	⁴ 250.5–350.4	425–504	30.5–40.4	0.605–0.804	1.25–1.64	301–400	
(²)	0.505–0.604	⁴ 350.5–500.4	505–604	40.5–50.4	0.805–1.004	1.65–2.04	401–500	Hazardous.

¹ Areas are generally required to report the AQI based on 8-hour ozone values. However, there are a small number of areas where an AQI based on 1-hour ozone values would be more precautionary. In these cases, in addition to calculating the 8-hour ozone index value, the 1-hour ozone index value may be calculated, and the maximum of the two values reported.

² 8-hour O₃ values do not define higher AQI values (≥ 301). AQI values of 301 or greater are calculated with 1-hour O₃ concentrations.

³ NO₂ has no short-term NAAQS, and can generate an AQI only above the value of 200.

⁴ If a different SHL for PM_{2.5} is promulgated, these numbers will change accordingly.

ii. If the concentration is equal to a breakpoint, then the index is equal to the corresponding index value in Table 2. However, Equation 1 can still be used. The results will be equal. If the concentration is

between two breakpoints, then calculate the index of that pollutant with Equation 1. You must also note that in some areas, the AQI based on 1-hour O₃ will be more precautionary than using 8-hour values (see

footnote 1 to Table 2). In these cases, you may use 1-hour values as well as 8-hour values to calculate index values and then use the maximum index value as the AQI for O₃.

$$I_p = \frac{I_{Hi} - I_{Lo}}{BP_{Hi} - BP_{Lo}} (C_p - BP_{Lo}) + I_{Lo} \quad (\text{Equation 1})$$

Where:

I_p = the index value for pollutant_p

C_p = the truncated concentration of pollutant_p

BP_{Hi} = the breakpoint that is greater than or equal to C_p
 BP_{Lo} = the breakpoint that is less than or equal to C_p
 I_{Hi} = the AQI value corresponding to BP_{Hi}
 I_{Lo} = the AQI value corresponding to BP_{Lo} .

iii. If the concentration is larger than the highest breakpoint in Table 2 then you may use the last two breakpoints in Table 2 when you apply Equation 1.

Example

iv. Using Table 2 and Equation 1, calculate the index value for each of the pollutants measured and select the one that produces the highest index value for the AQI. For example, if you observe a PM_{10} value of $210 \mu\text{g}/\text{m}^3$, a 1-hour O_3 value of 0.156 ppm, and an 8-hour O_3 value of 0.130 ppm, then do this:

a. Find the breakpoints for PM_{10} at $210 \mu\text{g}/\text{m}^3$ as $155 \mu\text{g}/\text{m}^3$ and $254 \mu\text{g}/\text{m}^3$, corresponding to index values 101 and 150;

b. Find the breakpoints for 1-hour O_3 at 0.156 ppm as 0.125 ppm and 0.164 ppm, corresponding to index values 101 and 150;
 c. Find the breakpoints for 8-hour O_3 at 0.130 ppm as 0.116 ppm and 0.374 ppm, corresponding to index values 201 and 300;
 d. Apply Equation 1 for $210 \mu\text{g}/\text{m}^3$, PM_{10} :

$$\frac{150 - 101}{254 - 155} (210 - 155) + 101 = 128$$

e. Apply Equation 1 for 0.156 ppm, 1-hour O_3 :

$$\frac{150 - 101}{0.164 - 0.125} (0.156 - 0.125) + 101 = 140$$

f. Apply Equation 1 for 0.130 ppm, 8-hour O_3 :

$$\frac{300 - 201}{0.374 - 0.116} (0.130 - 0.116) + 201 = 206$$

g. Find the maximum, 206. This is the AQI. The minimal AQI report would read:

v. Today, the AQI for my city is 206 which is Very Unhealthy, due to ozone. Children and people with asthma are the groups most at risk.

13. What Additional Information Should I Know?

The EPA has developed a computer program to calculate the AQI for you. The program prompts for inputs, and it displays all the pertinent information for the AQI (the index value, color, category, sensitive group, health effects, and cautionary language). The

EPA has also prepared a brochure on the AQI that explains the index in detail (The Air Quality Index), Reporting Guidance (Guideline for Public Reporting of Daily Air Quality) that provides associated health effects and cautionary statements, and Forecasting Guidance (Guideline for Developing an Ozone Forecasting Program) that explains the steps necessary to start an air pollution forecasting program. You can download the program and the guidance documents at www.airnow.gov. Reference for relating non-approved PM measurements to approved methods (Eberly, S., T. Fitz-Simons, T. Hanley, L. Weinstock., T.

Tamanini, G. Denniston, B. Lambeth, E. Michel, S. Bortnick. Data Quality Objectives (DQOs) For Relating Federal Reference Method (FRM) and Continuous $PM_{2.5}$ Measurements to Report an Air Quality Index (AQI). U.S. Environmental Protection Agency, research Triangle Park, NC. EPA-454/B-02-002, November 2002) can be found on the Ambient Monitoring Technology Information Center (AMTIC) Web site, <http://www.epa.gov/ttnamti1/>.

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91ST CONGRESS }
2d Session }

SENATE

{ REPORT
No. 91-1196

NATIONAL AIR QUALITY STANDARDS
ACT OF 1970

REPORT

OF THE

COMMITTEE ON PUBLIC WORKS
UNITED STATES SENATE

TOGETHER WITH

INDIVIDUAL VIEWS

TO ACCOMPANY

S. 4358



SEPTEMBER 17, 1970.—Ordered to be printed

U.S. GOVERNMENT PRINTING OFFICE

WASHINGTON : 1970

(387)

activities authorized. Careful evaluation is required to avoid duplicating to avoid dupli-

such areas ought to be subdivided to effectively implement air quality standards.

REGIONS

SECTION 109. AIR QUALITY CRITERIA AND CONTROL TECHNIQUES

of the procedure will provide for early promulgation of air quality standards on the basis of physical, and urban and concentration

This proposed legislation would require acceleration of the issuance of air quality criteria and information on control techniques as an integral part of the system for adoption of ambient air quality standards and implementation plans.

health of persons of every State. The fact that various different emission sources in all parts

Pollution agents which would be subject to the provisions of this section would be those which are emitted from widely distributed air pollution sources and generally present in the ambient air in all areas of the Nation.

the Secretary to in interstate and period is considered of air quality control designation. It is necessary to designate state areas or any problems associated industry.

Air quality criteria for five pollution agents have already been issued (sulfur oxides, particulates, carbon monoxide, hydrocarbons, and photochemical oxidants). Other contaminants of broad national impact include fluorides, nitrogen oxides, polynuclear organic matter, lead, and odors. Others may be added to this group as knowledge increases. The bill would require that air quality criteria for these and other pollutants be issued within 13 months from enactment. If the Secretary subsequently should find that there are other pollution agents for which the ambient air quality standards procedure is appropriate, he could list those agents in the Federal Register, and repeat the criteria process.

to reduce no delay in air quality standards promulgation of agents for which state not included Secretary during this air quality control region not included in air would be subdivided regions. This step, accomplished as part of additional air quality criteria at the time

Reports on control techniques, as under existing law, would be issued simultaneously with the publication of criteria. The Committee recognizes that the States will continue to need this information to develop meaningful programs for implementation of ambient air quality standards on a regional basis.

or subdivision of at factors bearing such as meteorological conditions will take. In other words, as determined by the Federal air quality control regions in that States, in order as to whether

The Committee believes that criteria and control technology documents should be periodically reviewed and re-issued to ensure currency. In addition, control techniques information should be periodically modified to reflect information developed under sections 104 and 113.

The Secretary would also be required to issue information on control techniques for air pollution agents for which emission standards are to be established under Section 114 and Section 115 and for which new source standards of performance are to be established under Section 113. It is expected that the Secretary would provide documentation, as appropriate, on the control techniques, methods, processes, or systems available for the purpose of complying with such emission standards or standards of performance.

The Committee does not intend that the recommended control techniques documents should lock in existing technology. As was pointed out by Dr. Aaron Teller, "the inhibition of innovation is the most dangerous consequence of this language. Air pollution control requires a new and unique technology."

The Committee intends that the information provided pursuant to this section should serve as guidance to States, not as limitations on control technology innovation.

SECTION 110. NATIONAL AIR QUALITY STANDARDS AND GOALS

This section would provide for publication and promulgation of national ambient air quality standards at a level which will protect the health of persons. In setting such air quality standards the Secretary

should consider and incorporate not only the results of research summarized in air quality criteria documents, but also the need for margins of safety. Margins of safety are essential to any health-related environmental standards if a reasonable degree of protection is to be provided against hazards which research has not yet identified.

Following the publication of any proposed national ambient air quality standard, the Secretary would provide up to 90 days for the receipt and evaluation of comments. Since the issuance of air quality criteria would precede the promulgation of such national standards, and since expert advisory committees would continue to be consulted in the preparation of air quality criteria, 90 days is considered sufficient time for the presentation and evaluation of additional information and opinions that may have a bearing on the national ambient air quality standards.

Although the option of adopting ambient air quality standards more stringent than the national health minimum for any air quality control region is preserved for the States, the Secretary would be required to set a national minimum standard of air quality which will protect the health of persons regardless of where such persons reside. This mechanism is recommended by the committee to expedite the establishment and implementation of ambient air quality standards.

In requiring that national ambient air quality standards be established at a level necessary to protect the health of persons, the Committee recognizes that such standards will not necessarily provide for the quality of air required to protect those individuals who are otherwise dependent on a controlled internal environment such as patients in intensive care units or newborn infants in nurseries. However, the Committee emphasizes that included among those persons whose health should be protected by the ambient standard are particularly sensitive citizens such as bronchial asthmatics and emphysematics who in the normal course of daily activity are exposed to the ambient environment. In establishing an ambient standard necessary to protect the health of these persons, reference should be made to a representative sample of persons comprising the sensitive group rather than to a single person in such a group.

Ambient air quality is sufficient to protect the health of such persons whenever there is an absence of adverse effect on the health of a statistically related sample of persons in sensitive groups from exposure to the ambient air. An ambient air quality standard, therefore, should be the maximum permissible ambient air level of an air pollution agent or class of such agents (related to a period of time) which will protect the health of any group of the population.

For purposes of this description, a statistically related sample is the number of persons necessary to test in order to detect a deviation in the health of any person within such sensitive group which is attributable to the condition of the ambient air.

Within 30 days after enactment the Secretary would be required to publish proposed national air quality standards for those pollutants covered by existing air quality criteria (sulfur oxides, particulate matter, carbon monoxide, hydrocarbons, and photochemical oxidants). Since these criteria have been available for some time, it is realistic to expect that proposed national standards for these five pollution agents would be published within the 30-day period. Proposed national air quality standards for pollutants for which criteria would be issued

subsequent to enactment of such criteria. National air quality standards for sulfur oxides, lead, polyn

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subsequent to enactment would be published simultaneously with the issuance of such criteria. These pollutants would include nitrogen oxides, lead, polynuclear organics, odors, and fluorides.

National air quality standards are authorized because the Committee has recognized that protection of health is a national priority, but the Committee also recognizes that man's natural and man-made environment must be preserved and protected. Therefore, the bill provides for the setting of national ambient air quality goals at levels necessary to protect public health and welfare from any known or anticipated adverse effects of air pollution—including effects on soils, water, vegetation, man-made materials, animals, wildlife, visibility climate, and economic values. To implement this provision the sections of existing law relating to the issuance of air quality criteria have been modified to require that air quality criteria documents include, to the extent practicable, information on any known or anticipated adverse effects of air pollution, including such effects on all the environmental and economic values listed above. Those criteria which have been issued as well as those planned for January of 1971 must be revised to include this information. Until such revisions are made, the Secretary should publish interim guidelines to assist the States in developing plans for the implementation of goals.

The Committee is aware that there are many gaps in the available scientific knowledge of the welfare and other environmental effects of air pollution agents. As indicated in the discussion of section 107, the Committee expects that the Department will intensify research on environmental and other economic effects of air pollution. A great deal of basic research will be needed to determine the long-term air quality goals which are required to protect the public health and welfare from any potential effects of air pollution. In the meantime, the Secretary will be expected to establish such national goals on the basis of the best information available to him.

The bill would not require the attainment of the air quality goals within a specified time period. Nevertheless, it is the Committee's view that progress in this direction should be made as rapidly as possible. In areas where air pollution levels are already relatively low, the attainment and maintenance of these goals should not require an extended time period. In areas where current air pollution levels are already equal to, or better than, the air quality goals, the Secretary should not approve any implementation plan which does not provide, to the maximum extent practicable, for the continued maintenance of such ambient air quality. Once such national goals are established, deterioration of air quality should not be permitted except under circumstances where there is no available alternative. Given the various alternative means of preventing and controlling air pollution—including the use of the best available control technology, industrial processes, and operating practices—and care in the selection of sites for new sources, land use planning and traffic controls—deterioration need not occur.

SECTION 111. IMPLEMENTATION PLANS

The establishment alone of ambient air quality standards has little effect on air quality. Standards are only the reference point for the analysis of the factors contributing to air pollution and the imposition

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CLEAN AIR ACT AMENDMENTS OF 1977 (CAA77)

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95TH CONGRESS — COMMITTEE REPORTS: House Interstate and Foreign Commerce Committee Report 95-294,
Reporting H.R. 6161, May 12, 1977

95 Cong. House Report 294; CAA77 Leg. Hist. 26

95TH CONGRESS 1st Session
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REPORT NO. 95-924

CLEAN AIR ACT AMENDMENTS OF 1977

REPORT
BY THE
COMMITTEE ON INTERSTATE AND
FOREIGN COMMERCE
[To accompany H.R. 6161]

together with
ADDITIONAL, SEPARATE, AND
SUPPLEMENTAL VIEWS

And Including Cost Estimate of the Congressional Budget Office

MAY 12, 1977.—Committed to the Committee of the Whole House on
the State of the Union and ordered to be printed

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[*III]

CONTENTS

	Page
Statement of purposes and summary of legislation	1
Legislative background	30
Cost of legislation	30
CBO estimate	31
Inflationary impact statement	32
Program oversight	34
Committee proposal	34
Title I — Amendments relating primarily to stationary sources:	
Section 101 — Unregulated pollutants	3
Section 102 — Basis of administration standards	3
Section 102A — Economic impact statement	3
Section 103 — Delayed compliance orders	4
Section 104 — Assessment of civil penalties	5
Section 105 — Noncompliance penalty	5
Section 106 — Compliance date extensions for coal conversion	6
Section 107 — Stratosphere and ozone protection	6

The Office of Management and Budget in the Ford administration required that EPA charge each attendee the user fee. Since State and local agencies usually send several people to each course, the cost could be prohibitive, especially when added to the out-of-State travel expenses usually associated with the courses. Many States have been unable to send staff members for the training courses since the user fee was imposed and all indications are that basic air pollution control training will not be available for many of the people involved in implementing key requirements of the Federal Clean Air Act. (1972 Hearings, pp. 816, 820, 822-3, 831.)

The Environmental Protection Agency has opposed OMB efforts to curtail State program grants and free training for State and local personnel.

Continued delegation of pollution control programs to the States is a very high priority for EPA. Major advances in this area have already been made, but without additional financial support, we cannot expect further assumption of air and water programs by the States. The additional funding we have requested for State and local grants is a small price to pay to assure continued progress toward pollution control goals. The alternative is for EPA to assume the responsibilities which we are now asking the States to undertake. The latter course, aside from its implications for a burgeoning [*179] Federal bureaucracy, is very unattractive to me because I believe that only through State and local operation of programs can we achieve an acceptance of controls necessary to reduce pollution by those most affected. (H. 1181)

Committee proposal

<CAA § 103> Section 109 of the bill would amend section 103 of the act. The amendment would change the discretionary authority for EPA to conduct and assist training to a nondiscretionary duty. Furthermore, it would require EPA to provide such training to personnel of State and local air pollution control agencies free of charge. The Administrator's authority to charge reasonable fees is retained for persons other than employees of such public agencies. By these provisions, the committee intends to provide continuing support of State and local efforts to assume maximum responsibility for the adoption, implementation and enforcement of air pollution control measures and to reduce the necessity for direct Federal administration of such measures.

<CAA § 103> This section also provides a separate authorization of \$7.5 million for each of the 3 fiscal years beginning after the date of enactment of the Clean Air Act Amendments of 1977.

SECTION 110 — REVIEW OF STANDARDS

Background

For nearly 10 years the scientific basis for settling ambient air quality standards has been reviewed, evaluated, subjected to outside criticism, and reevaluated.

The first air quality criteria document was issued in March 1967, pursuant to the 1965 Amendments to the Clean Air Act. Criteria documents are required to "reflect the latest scientific knowledge useful in indicating the kinds and extent of all identifiable effects on health and welfare which may be expected from the presence of an air pollutant agent * * * " Sec. 108.

The March 1967 document, entitled "Air Quality Criteria for Sulfur Oxides," was published by the National Air Pollution Control Administration of the Department of Health, Education, and Welfare. No sooner had it appeared than Congress adopted the Air Quality Act of 1967. That act required that

Criteria issued prior to enactment of this section [November 21, 1967] shall be reevaluated in accordance with the consultation procedure * * * and, if necessary, modified and reissued.

Over a 2-year period, the 1967 criteria document was reviewed, modified, and reissued. The process that led to that revision is described in the 1969 "Sulfur Oxides Criteria Document."

In accordance with the [1967] act, a National Air Quality Criteria Advisory Committee was established, having a membership [*180] broadly representative of industry, universities, conservation interests, and all levels of government. The committee * * * provided major assistance in reevaluating the original criteria document.

With the help of a Subcommittee on Sulfur Oxides, expert consultants were retained to rewrite and edit portions of the document with other segments being revised by staff members of NAPCA. After the initial revisions, there followed a sequence of review by the subcommittee, and by the full committee, as well as by individual reviewers especially selected

for their competence and expertise in the many fields of science and technology related to the problems of atmospheric pollution by sulfur oxides. * * *

As also required by the Air Quality Act of 1967, appropriate Federal departments and agencies * * * were consulted prior to issuing this criteria document. A Federal consultation committee, comprising members designated by the heads of seventeen departments and agencies, reviewed the document and met with staff personnel of the National Air Pollution Control Administration to discuss their comments. n1

n1 USDHEW, "Air Quality Criteria for Sulfur Oxides," (January 1969), pp. iii-iv.

At the same time as publication of the revised criteria document on sulfur oxides, a particulate matter document was also published. n2 The particulate matter document was prepared and reviewed under the same procedures as the sulfur oxides document.

n2 USDHEW, "Air Quality Criteria for Particulate Matter," (January 1969).

In March 1970, additional criteria documents were published by the Department of Health, Education, and Welfare for carbon monoxide, hydrocarbons, and photochemical oxidants. In January 1971, the newly created Environmental Protection Agency published a criteria document for nitrogen oxides. Each of these was prepared and reviewed in accordance with the same procedures.

In April 1971, the Administrator of the Agency promulgated national ambient air quality standards for each of these pollutants, as required by the Clean Air Act Amendments of 1970 (Public Law 91-604). The standards were promulgated after notice and receipt and consideration of numerous comments from the public. Only one judicial challenge to the national ambient air quality standards was filed. That suit, n3 challenging the national secondary ambient air quality standards for sulfur oxides, was ultimately remanded to the Agency. In response to the remand, the Agency voluntarily revoked the secondary standard based on annual concentrations and the associated 24-hour guide.

n3 See *Kennecott Copper Corp. v. EPA*, 462 F.2d 846 (D.C. Cir. 1972).

Review of the national ambient air quality standards has been an ongoing process and has been undertaken by a number of groups. The American Medical Association, for example, has conducted conferences on air pollution research, has reviewed the standards, and in June 1973 adopted a resolution supporting the standards.

[*181] *Resolved*. That the American Medical Association endorse the present levels and time schedules as promulgated by the Clean Air Act — 1970; and be it further *Resolved*, That the American Medical Association encourage Congress to preserve present levels and time schedules as necessary public health measures (H. 318).

Review of the national ambient air quality standards for sulfur oxides was also undertaken in 1973 by the National Institutes of Environmental Health Sciences of the Department of Health, Education, and Welfare at the request of Mr. Roy Ash, Director of the Office of Management and Budget. The NIEHS report concluded, "There is * * * no basis for relaxation of the present standards for sulfur oxides at this time." n4 The NIEHS report did note, however, that the "scientific basis for this judgment is incomplete" and called for further scientific research. n5

n4 Rall report, op. cit., p. 3.

n5 Id.

In 1973, the Library of Congress Congressional Research Service also reviewed the basis for the national ambient standards. That review concluded — again with a call for additional evidence — that relaxation of the standards was not warranted. n6

n6 Congressional Records, S. 6625-6644 (April 4, 1973, daily ed.).

In June 1974, an international symposium on "Recent Advances in the Assessment of Health Effects of Environmental Pollution" was held in Paris. According to Dr. D. S. Barth, Director of the National Environmental Research Center, at Las Vegas, "no new information was presented which would suggest that the U.S. primary air quality standards are in error". n7

n7 Memorandum, Barth, "Conclusions from the International Symposium 'Recent Advances in the Assessment of Health Effects of Environmental Pollution'," July 8, 1974, p. 1.

Later in 1974 the National Academy of Sciences published its report on the review of the national ambient air quality standards. The report stated:

None of the panels was satisfied with the data base available currently for setting the standards. Nevertheless, in general, these panels found that the evidence that has accumulated since the promulgation of the Federal ambient air quality standards by the EPA Administrator on April 30, 1971, supports these standards. In fact, the safety factors provided by the air standards are much smaller than is usual in regulating other environmental pollutants such as radioactivity. * *
* On balance, the panels found no substantial basis for changing the standards. n8

n8 NAS, "Air Quality and Automobile Emission Control," Vol. 1 (September 1974), p. 6 [hereinafter referred to as "1974 NAS Report"].

At the same time the NAS report noted.

All of the panels addressed themselves to the question of whether there are thresholds for the adverse health effects of pollutants, that is, some safe level below which essentially all members of the population are safe. The present standards were driven on the assumption that such thresholds do exist. * * *

[*182] However, in no case is there evidence that the threshold levels have a clear physiological meaning, in the sense that there are genuine adverse health effects at and above some level of pollution, but no effects at all below that level. On the contrary, evidence indicates that the amount of health damage varies with the upward and downward variations in the concentration of the pollutant, with no sharp lower limit. n9

Other deficiencies and limitations of the national ambient air quality standards suggest that greater not lesser control of emissions are likely to be needed. n10

n9 Id., p. 17.

n10 1975 NAS Report, op. cit., p. xxvi; see also supra., at sec. 108.

Committee proposal

Because of the admitted need for greater research, the importance of the national ambient air quality standards, the continuing controversy over the standards, and the committee's desire for continued independent scientific review of the Environmental Protection Agency's exercise of judgment, the committee adopted section 110 of the bill.

This section requires the Administrator, at regular 2-year intervals, to review the criteria and the national ambient air quality standards. The Administrator's review is to include not only those pollutants for which criteria have been published, but also those pollutants for which publication of criteria is appropriate but as to which no criteria have yet been issued. Thus, the committee anticipates that the Administrator would coordinate the review under this section with the studies provided for in sections 101 and 312 of the act.

The Administrator is further required to promulgate new standards and revise existing standards as are appropriate under the terms of section 109(b) of the act. In this regard, see the concerns expressed in the 1973 hearings, page 826, by the director of the Texas Air Control Board.

To assist the Administrator in carrying out these duties and to provide an independent source of review and advice to the Administrator and to the Congress, an independent scientific review committee is required to be established. This committee is intended to assist the Administrator, but it is also intended to have complete independence. This independence will help provide an outside mechanism for evaluating whether any pollutant may reasonably be anticipated to endanger public health or environment, for evaluating the scientific and medical data which might bear on this question, and for reviewing gaps in the available data and recommending additional needs for research.

The independent, scientific review committee's recommendations on these issues will not only aid the Administrator and the Congress, but also the courts in judicial review of any national ambient air quality standard or of the Administrator's failure or refusal to set or revise such a standard with respect to any pollutant. Under section 305 of the [*183] bill, the

independent committee's views are to be included in the record of any such rulemaking proceeding and, therefore, to be considered by the courts in reviewing the Administrator's action or inaction. n11

n11 Section 109 of the bill is not intended, of course, to modify the provision of section 307(b) of the act, requiring any petition for judicial review filed more than 30 days after the promulgation of such a standard to be "based solely on grounds arising after such 30th day." But see sec. 305 of this bill which extends that period to 60 days.

The independent committee is also directed to advise the Administrator with respect to any harmful effects which may result from various strategies to attain and maintain national ambient air quality standards. In light of *Train v. NRDC*, the committee does not intend this provision to be used as a basis for the Administrator to disapprove any State's plan. However, this advice may be of interest and assistance to the States and to Congress in fashioning future legislation.

In order to assure the independence of the scientific review committee, this section specifies that three of its seven members must be a physician, a representative of the NAS, and a representative of a State air pollution control agency. Furthermore, in order to assure the independence and credibility of the scientific review committee, this committee expects that no one with any actual, potential, or appearance of conflict of interest (or closely associated with any such person) would be appointed to the committee. Since the main function of the scientific review committee is to assess the health and environmental effects of ambient air pollution, it is anticipated that all seven members would be selected on the basis of their special expertise in the fields of environmental toxicology, epidemiology and/or clinical medicine, or in the fields of environmental or ecological systems.

It should be noted that this section is intended to be prospective in effect. The committee does not intend by its enactment to invalidate or stay the effect of any existing national ambient air quality standard. Nor would a recommendation by the independent scientific review committee have such an effect.

SECTION 111 — NEW SOURCE STANDARDS OF PERFORMANCE

Background

The 1970 Clean Air Act Amendments authorized the Administrator to prescribe nationally applicable standards of performance for large, new sources of air pollution.

The term "standard of performance" means a standard for emissions of air pollutants which reflects the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction) the Administrator determines has been adequately demonstrated. Section 111(a)(1).

In enacting this provision in 1970, Congress was advised by the Department of Health, Education and Welfare, and understood that "the national emission standard implies the application of * * * [*184] control technology" to such sources. n1 In the Congress view, it was only right that the costs of applying best practicable control technology be considered by the owner of a large new source of pollution as a normal and proper expense of doing business.

n1 1969-70 hearings before the Subcommittee on Public Health and Environment, "Air Pollution Control and Solid Wastes Recycling," Serial No. 91-49 and 91-50, p. 315. [Hereinafter referred to as 1969-70 hearings.]

Purposes

Several purposes were intended to be served by the requirement that these large new sources meet the national emission standard requiring use of the best practicable control technology.

The first purpose is suggested by a question raised by Rep. James F. Hastings in the course of the subcommittee's 1969-70 hearings:

Mr. Hastings * * * I have observed that the States that are the most progressive in trying to meet the standards that are established are the ones who find themselves somewhat at odds with the industries located within the boundaries of their State, understandably so, of course.

Is there any way really that we can approach this problem so that it doesn't become a situation where the State tries to meet the responsibility and finds that in fact it stands in danger of having their industries move from many of their areas to other States that aren't quite as insistent or don't move quite as quickly towards meeting these standards? n2