

US EPA ARCHIVE DOCUMENT

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 50

[FRL ]

RIN xxx

Review of National Ambient Air Quality Standards  
for Particulate Matter

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Notice of review.

**SUMMARY:** This document describes EPA's plans and schedule for the next periodic review of the air quality criteria and national ambient air quality standards (NAAQS) for particulate matter (PM). This review will take into account newly emerging research on the effects of airborne particles on human health and the environment. This new information will be integrated with that developed during the most recent review of the PM criteria and standards completed in July 1997. The schedule for this review is consistent with the requirements of the Clean Air Act (Act) for periodic review of the criteria and standards, including review by the Clean Air Scientific Advisory Committee (CASAC), and the Presidential Memorandum for the Administrator of the EPA published on July 18, 1997 (62 FR 38421) on the implementation of revised NAAQS for ozone and PM, which called for completion of this PM review by July 2002.

**FOR FURTHER INFORMATION CONTACT:** Dr. Lester Grant, National Center for Environmental Assessment (MD-52), with regard to the air quality criteria document, or Dr. Karen Martin,

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**SUPPLEMENTARY INFORMATION:**

**Background**

On July 18, 1997 the EPA published a final rule revising the NAAQS for PM (62 FR 38652). On the same day, EPA also published a final rule revising the NAAQS for ozone (62 FR 38856). A Presidential Memorandum (62 FR 38421, July 18, 1997) was also published outlining the Administration's goals for implementing the revised PM and ozone NAAQS. The Memorandum directed the Agency to provide to CASAC within 90 days and to publish a notice outlining its schedule for the next periodic review of PM and to complete the next review, including review by CASAC, within 5 years after issuance of the revised standards. Such a schedule would ensure that EPA's review of the emerging scientific information, which forms the criteria upon which the standards are based, and of the standards themselves will have been completed prior to any areas being designated as "nonattainment" under the recently established standards for fine particles (i.e.,

PM<sub>2.5</sub> standards<sup>1</sup>) and prior to the imposition of any new controls related to the revised standards. To facilitate timely scientific research within this review period, EPA is initiating certain activities immediately, as noted below in the discussion of the PM research program.

#### **Review Plans and Schedule**

The EPA's plans to review the criteria and standards for PM are outlined in the table below, together with target dates for key milestones. As with all NAAQS reviews, the purpose is to update the criteria and to determine whether it is appropriate to revise the standards in light of new scientific and technical information. Although the EPA concluded in its recent final rule on the PM standards (62 FR 38652, July 18, 1997) that the current scientific knowledge provides a strong basis for the revised PM standards, including the establishment of PM<sub>2.5</sub> standards, there remain scientific uncertainties associated with the health effects of PM and with the means of reducing such effects. Recognizing the importance of developing a better understanding of the effects of fine particles on human health, including their causes and mechanisms, as well as the species and sources of PM<sub>2.5</sub>, the EPA will continue to sponsor research to address these uncertainties.

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<sup>1</sup>PM<sub>2.5</sub> refers to particles with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers.

The Presidential Memorandum also directed EPA and other relevant Federal agencies to develop and implement a greatly expanded, coordinated research plan. These PM research plans are outlined in the following section.

As with other NAAQS reviews, a rigorous assessment of relevant scientific information will be presented in a Criteria Document (CD) prepared by EPA's National Center for Environmental Assessment. The development of the CD will involve substantial external peer review through public workshops involving the scientific community at large and through iterative reviews of successive drafts by CASAC and the public. The final CD will reflect input received through these reviews and will serve to evaluate and integrate this scientific information to ensure that the review of the standards is based on sound science. The schedule for this review will allow for consideration of relevant new peer-reviewed scientific studies published or accepted for publication from mid-1996 (when the last CD was completed) through mid-2000.

The EPA's Office of Air Quality Planning and Standards will also prepare a Staff Paper (SP) for the Administrator, drawing on information in the CD. The SP will evaluate the policy implications of the key studies and scientific information contained in the CD and identify critical elements that EPA staff believes should be considered in reviewing the standards. The SP is intended to bridge the

gap between the scientific review in the CD and the public health and welfare policy judgments required of the Administrator in reviewing the PM NAAQS. For that purpose, the SP will present technical analyses, including air quality analyses and a quantitative health risk assessment, and other factors relevant to the evaluation of the PM NAAQS, as well as staff conclusions and recommendations of options for the Administrator's consideration. The SP will also be reviewed by CASAC and the public, and the final SP will reflect the input received through these reviews.

#### Major Milestones in PM NAAQS Review

Major Milestones	Target Dates
PM NAAQS Review Plan to CASAC	October 1997
Prepare CD Development Plan	November 1997 to January 1998
CASAC meeting on CD Development Plan	March 1998
Prepare Workshop Drafts of CD Chapters	April to December 1998
Peer Review Workshops	February/March 1999
Prepare External Review Draft CD	March to July 1999
Draft CD to CASAC	July/August 1999
Public Comment Period on Draft CD	August to October 1999
CASAC meeting on Draft CD	October/November 1999
Prepare Revised CD and Draft SP	November 1999 to February 2000
Revised CD and Draft SP to CASAC	March 2000
Public Comment Period on Revised CD and Draft SP	March to May 2000
CASAC meeting on Revised CD and Draft SP	May/June 2000
Prepare Revised SP and Final Revisions to CD	May to August 2000

Major Milestones	Target Dates
Revised SP to CASAC; Complete Final CD	September 2000
Public Comment Period on Revised SP	September to November 2000
CASAC meeting on Revised SP	November/December 2000
Complete Final SP and Develop Proposal Package	December 2000 to April 2001
OMB/Interagency Review of Proposal Package (90 days)	May to July 2001
Publish Proposal in <u>Federal Register</u>	August 2001
Public Comment Period on Proposal (90 days)	September to November 2001
CASAC meeting on Proposal	November 2001
Review Public/CASAC Comments and Develop Promulgation Package	December 2001 to April 2002
OMB/Interagency Review of Promulgation Package (60 days)	May to June 2002
Final Promulgation Package Signed by Administrator	July 2002

### **PM Research Program**

The EPA is broadening its ongoing PM research activities by developing, in partnership with other Federal agencies, a coordinated interagency PM research program. This interagency program will contribute to expanding scientific knowledge of PM health effects, as well as developing improved monitoring methods and cost-effective mitigation strategies. The interagency effort will also promote further coordination with other research organizations including state-, local-, nonprofit-, and industry-sponsored research groups. Beginning this fall, public participation will also be encouraged through workshops and review of program documentation. Workshops

and the availability of relevant documentation will be announced in the Federal Register.

To aid identification of needed research efforts, EPA is revising a document, Research Needs for Particulate Matter, in response to comments received from CASAC on an earlier draft document. This document will identify research needed to improve scientific information supporting future health risk assessment and review of the PM NAAQS. The document will provide a useful framework for coordination among Federal agencies and other research organizations. A complementary document, Particulate Matter Research Program Strategy, which will identify the areas of emphasis for EPA's research program, is also being revised in response to CASAC review. The EPA's research emphasis includes studies to improve understanding of the formation and composition of fine PM, the characteristics or components of PM that are responsible for its health effects, and the mechanisms by which these effects are produced, as well as improved measurements and estimation of population exposures to PM. These EPA research efforts include epidemiology, clinical studies, in vivo and in vitro toxicology, atmospheric sciences including monitoring and

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modeling studies, development of data on emissions of fine particles from stationary and mobile sources, and

identification and evaluation of risk management options. The results from these efforts, as well as related efforts by other Federal agencies and the general scientific community, will advance the scientific and technical bases for future decisions on the PM NAAQS and for the implementation of PM monitoring and control efforts.

**List of Subjects in 40 CFR Part 50**

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

Dated: [on or before October 16, 1997]

*Administrator.*