ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52
[PA034–4014, PA035–4015; FRL–5465–1]

Approval and Promulgation of Air Quality Implementation Plans; Pennsylvania; Redesignation Request and Maintenance Plan for the Pittsburgh Ozone Nonattainment Area

AGENCY: Environmental Protection Agency.

ACTION: Final rule.

SUMMARY: Environmental Protection Agency (EPA) is disapproving a redesignation request for the Pittsburgh ozone nonattainment area and a State Implementation Plan (SIP) revision submitted by the Commonwealth of Pennsylvania. This SIP revision consists of a maintenance plan for the Pittsburgh ozone nonattainment area. The effect of this action is to disapprove the redesignation request and its associated maintenance plan because the area violated the National Ambient Air Quality Standard for ozone (ozone NAAQS) and additionally is not otherwise eligible for redesignation. This action is being taken under sections 107 and 110 of the Clean Air Act.

EFFECTIVE DATE: This final rule is effective on May 31, 1996.

ADDRESSES: Copies of the documents relevant to this action are available for public inspection during normal business hours at the Air, Radiation, and Toxics Division, Environmental Protection Agency, Region III, 841 Chestnut Building, Philadelphia, Pennsylvania 19107 and the Pennsylvania Department of Environmental Protection, Bureau of Air Quality, P.O. Box 8468, 400 Market Street, Harrisburg, Pennsylvania 17105.

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SUPPLEMENTARY INFORMATION: On February 7, 1996 (61 FR 4598), EPA published a notice of proposed rulemaking (NPR) for the Commonwealth of Pennsylvania that proposed disapproval of the redesignation request and maintenance plan for the Pittsburgh-Beaver Valley ozone nonattainment area (the Pittsburgh area). The formal redesignation request was submitted by the Commonwealth of Pennsylvania on November 12, 1993. At the same time, the Commonwealth submitted a maintenance plan for the Pittsburgh area as a SIP revision. The Commonwealth subsequently amended the maintenance plan on January 13, 1994 and, again, on May 12, 1995. During the 1995 ozone season, the Pittsburgh area violated the ozone NAAQS, making the area ineligible for redesignation. Therefore, EPA proposed to disapprove the redesignation request and its associated maintenance plan.

Other specific details of the Commonwealth’s redesignation request and maintenance plan for the Pittsburgh area, and the rationale for EPA’s proposed action are explained in the NPR and will not be restated here. Both positive and adverse public comments were received on the NPR. EPA received three comment letters in favor of the proposed disapproval of the Pittsburgh...
area redesignation request and maintenance plan. Two comment letters were opposed to the disapproval. The following is a summary of the adverse comments received on the NPR, and EPA's response to those comments.

Comment 1: Two commenters maintained that transport of ozone and NOx is the primary cause of the violations in the Pittsburgh area. The letters contained the following comments:
(1) "Southwestern Pennsylvania's ozone is primarily due to transported ozone and NOx from upwind states."
(2) "Despite the potential health and economic harm to residents of southwestern Pennsylvania, EPA has failed to properly control interstate transport of ozone and NOx into Pennsylvania."
(3) "EPA has failed to consider the effects of transport in determining whether southwestern Pennsylvania has violated the NAAQS for ozone and whether its maintenance plan is adequate."
(4) "Transport of ozone from outside Pennsylvania into the Pittsburgh-Beaver Valley area was not considered."
(5) "Disapproval of southwestern Pennsylvania's attainment application could worsen, rather than improve, the region's air quality." The commenter asserted that, because the ozone in the Pittsburgh area is due primarily to transport, additional emission controls will not prevent exceedances, and may have little or no effect on the area's ozone levels. Also, "extraordinary measures" would be needed to prevent exceedances.

One commenter contends that ozone readings at monitoring points near the West Virginia/Ohio/Pennsylvania border demonstrate a strong correlation between the amount of ozone transported across the border and the readings in the Pittsburgh-Beaver Valley area. The commenter claimed that the imposition of additional emission controls in the Pittsburgh area would further exacerbate the substantial economic incentive in the neighboring states of Ohio and West Virginia, which are not included in the Ozone Transport Region (OTR) and include areas that have been granted redesignation to attainment and/or NOx exemptions under section 182(f) of the Act.

EPA's Response: While Pennsylvania has made great strides in improving the air quality in the Pittsburgh area, ozone remains a problem. EPA believes that the Pittsburgh area generates substantial emissions of VOC and NOx, which contribute significantly to the nonattainment problem there. This was demonstrated in 1995, when exceedances were recorded in Pittsburgh, and ozone concentrations at the border and in all other western and central Pennsylvania areas were below the standard.

On November 15, 1990, amendments to the 1977 Clean Air Act were enacted. Pub. L. 101-549, 104 Stat. 2399, codified at 42 U.S.C. 7401-7671q. The Pittsburgh-Beaver Valley area was designated nonattainment for ozone prior to enactment of the amended Act. The area retained its designation of nonattainment under the amended Act, and was classified as moderate on November 6, 1991 (56 FR 56694). Despite being classified as moderate since 1991, the Pittsburgh area has not fully adopted and implemented all statutory requirements for moderate ozone nonattainment areas, including automobile inspection and maintenance (I/M) and reasonably available control technology (RACT) for all of its major sources of VOC and NOx. Therefore, emissions in the Pittsburgh area have not been reduced to the extent required by the Clean Air Act for moderate nonattainment areas.

Disapproval of the redesignation request will not worsen the area's air quality. In fact, the opposite is true. If the redesignation request was approved, and the area was not required to address its air quality problem by reducing its emissions of ozone precursors (VOC and NOx), the area would continue to violate the ozone NAAQS whenever meteorological conditions were favorable for ozone formation. However, if the redesignation request is disapproved, the area adopts and implements all control measures required for moderate ozone nonattainment areas, precursor emissions will be reduced and, therefore, ozone concentrations in the area will be reduced.

Pennsylvania has made no demonstration that the ozone problem in the Pittsburgh area is caused by transport from upwind sources. An adequate technical demonstration, including emissions data and a modeling analysis, must be provided to support any claim of transport-dominated nonattainment.

Although ozone levels recorded at monitors near the West Virginia/Ohio/Pennsylvania border seem to correlate with the levels recorded further east in the nonattainment area, this data is not sufficient to demonstrate that the Pittsburgh area's ozone problem is due to transport. During the summer of 1995, on the days when monitors in the Pittsburgh area ("downwind" monitors in Allegheny and Westmoreland Counties) recorded exceedances of the ozone standard, ozone levels at the monitors on the western border of the Pittsburgh area (the "upwind" monitors in Beaver and Washington Counties, Pennsylvania) recorded increased levels of ozone. However, these "upwind" monitors did not record any exceedances of the ozone standard. In other words, "downwind" monitors in the Pittsburgh area always recorded higher ozone levels than the monitors at the western border. This demonstrates the Pittsburgh area is causing its own exceedances by generating ozone in the area.

Furthermore, EPA intends to use its authority under sections 110(a)(2)(A) and (D) of the Clean Air Act, where appropriate, to require any state to reduce its emissions where there is evidence, such as photochemical grid modeling, showing that the area's emissions contribute significantly to nonattainment in, or interfere with maintenance by, any other state. EPA is working with the states and other organizations, through the Ozone Transport Assessment Group (OTAG), to design and complete studies that consider upwind sources and quantify their impacts. As the studies progress, EPA will continue to work with the states and other organizations to develop mutually acceptable attainment strategies. Under the Clean Air Act, each state is ultimately responsible for ensuring that emissions originating in the state do not contribute significantly to nonattainment in, or interfere with maintenance by, any other state.

Moreover, Governor Ridge has publicly stated that Pittsburgh has an ozone problem. The Governor has initiated a stakeholders process, a cooperative effort between industry and government, to resolve Pennsylvania's air quality problems. EPA officials are actively involved in this process to help Pennsylvania determine the most appropriate strategies. Under the Clean Air Act, each state is ultimately responsible for ensuring that emissions originating in the state do not contribute significantly to nonattainment in, or interfere with maintenance by, any other state.

Finally, even if the violations in Pittsburgh could be attributed to transport, EPA would not have the authority to redesignate Pittsburgh to attainment. Section 107(d)(1)(A)(ii) defines an attainment area as an area "that meets" the national ambient air quality standard and section 107(d)(3)(E) prohibits EPA from redesigning an area to attainment unless EPA determines that the area is attaining the standard. As an area that is experiencing violations of the ozone standard is not attaining the standard, EPA is not authorized to by the Clean Air Act to redesignate such an area to attainment.
Comment #2: “EPA has established an unreasonable methodology for determining a region's compliance with the National Ambient Air Quality Standard (NAAQS) for ozone, and has failed to comply with statutory requirements to review and revise the standard.” The commenter also criticized EPA's method of determining an area's design value and EPA's methods used to locate monitors.

EPA's Response: The ozone NAAQS is a health-based standard that couples exposure time and concentration. EPA has determined that the level of the NAAQS is a one-hour average ozone concentration of 0.12 parts per million (ppm). This standard is designed to protect public health. Attainment of the ozone NAAQS is determined using three consecutive years of data to account for year-to-year variations in meteorological conditions as well as year-to-year variations in VOC and NOx emissions. Concentrations of ozone above the NAAQS level cause respiratory problems such as shortness of breath, coughing, congestion, and lung tissue damage and can result in loss of work, and increased hospitalizations. Those most at risk are children, outdoor workers, people with respiratory problems, such as asthma, and people who spend a lot of time outside.

Under section 109(d)(1) of the Act, EPA is required to perform a review of the ozone NAAQS every five years. The last review was completed in 1993 (58 FR 13008). That review resulted in retaining the existing standard: 0.12 ppm, 1 hour average, average annual expected exceedances ≤1 (i.e. for a three-year period, the average number of expected exceedances at each monitoring site must be less than or equal to one per year). (See 40 CFR 50.) However, in the February 3, 1994 Federal Register (59 FR 5164), EPA announced that, due to new studies published in the scientific literature on ozone's health and environmental effects, another review of the ozone NAAQS would be conducted as rapidly as possible. EPA is planning to complete its review and propose its findings as soon as possible. EPA is planning to complete its review and propose its findings as soon as possible. EPA is planning to complete its review and propose its findings as soon as possible. EPA is planning to complete its review and propose its findings as soon as possible. EPA is planning to complete its review and propose its findings as soon as possible. EPA is planning to complete its review and propose its findings as soon as possible. EPA is planning to complete its review and propose its findings as soon as possible. EPA is planning to complete its review and propose its findings as soon as possible. EPA is planning to complete its review and propose its findings as soon as possible. EPA is planning to complete its review and propose its findings as soon as possible. EPA is planning to complete its review and propose its findings as soon as possible. EPA is planning to complete its review and propose its findings as soon as possible. EPA is planning to complete its review and propose its findings as soon as possible. EPA is planning to complete its review and propose its findings as soon as possible. EPA is planning to complete its review and propose its findings as soon as possible.

As shown in the tables below, the area was not without exceedances from 1989 to 1994. From 1987 to 1995, the number of exceedances varied from year to year with no discernable pattern. This variation is due to year-to-year variations in emissions and meteorological conditions.
Because the area has not adequately reduced its VOC and NOX emissions, it is subject to ozone exceedances whenever meteorological conditions are conducive to ozone formation. One of the goals of the Clean Air Act is to minimize the health risks that people encounter. Since meteorological conditions cannot be controlled, the way to reduce health risks due to ozone in the Pittsburgh area is to reduce the anthropogenic emissions of VOC and NOX, both of which are considered pollutants. Furthermore, many VOCs are listed as hazardous air pollutants under section 112 of the Clean Air Act, and nitrogen dioxide (NO2) is individually regulated by EPA because of its health and welfare effects. As a result, the reduction of VOC and NOX emissions will reduce the health risks that are associated with exposure to VOC and NOX, as well as reducing the health risks due to elevated ozone levels.

Ozone is a regional pollutant. It is not formed in the same place as its VOC and NOX precursors are generated. The VOC and NOX that react to form ozone are usually generated from different sources and are transported through the air (by the wind) to a common location, and then react in the presence of sunlight. Because of this transport, emissions from the entire area contribute to ozone exceedances, even if the exceedances are recorded only at a few monitors. Therefore, all ozone monitors in an ozone nonattainment area must be free of violations for the area to be considered meeting the ozone NAAQS.

Comment #4: "EPA should have redesignated the Pittsburgh area prior to the summer of 1995." The commenter wrote that, since the request was submitted in 1993, EPA had ample opportunity and justification to approve it, and that for 4 consecutive three-year periods, 1989-1994, the NAAQS was achieved. Another commenter stated that, because of the debate over vehicle inspection and maintenance (I/M), EPA refused to redesignate the area.

EPA’s Response: Under section 107(d)(3)(E) of the Act, the following five criteria must be met for an ozone nonattainment area to be redesignated to attainment:

1. The area must meet the ozone NAAQS.
2. The area must meet applicable requirements of section 110 and Part D of the Act.
3. The area must have a fully approved SIP under section 110(k) of the Act.
4. The area must show that its experienced improvement in air quality is due to permanent and enforceable measures.
5. The area must have a fully approved maintenance plan under section 175A of the Act, including contingency measures.

In order for EPA to redesignate an area, all five of these criteria must be met. It is true, that from 1992 to 1994, the Pittsburgh area met the first criterion. The area did have ambient air quality data that met the ozone NAAQS. However, the area did not meet the remaining four criteria.

According to criteria 2 and 3, all applicable Part D requirements, including new source review (NSR), NOx and VOC reasonably available control technology (RACT), and I/M, must be submitted to EPA and approved into the SIP before a redesignation request can be approved. As the area lacks SIP-approved RACT rules for major sources of NOx and VOC, SIP-approved I/M, and SIP-approved NSR, EPA could not approve its redesignation request.

The violations that were recorded in 1995 indicate that criterion 4 was not met. The permanent and enforceable emissions reductions achieved in the area were evidently not adequate to maintain the improved air quality that was experienced between 1989 and 1994, which was due, in part, to the meteorological conditions experienced during that period.

Criterion 5 was established to ensure that any area that is redesignated to attainment will be able to maintain compliance with the NAAQS for at least a ten-year maintenance period following the redesignation. The Pittsburgh area does not meet criterion 5 because its maintenance plan is unapprovable. The maintenance plan does not project maintenance of the NAAQS for the required 10 years beyond EPA approval of the redesignation request. The submitted maintenance plan projects emissions only up to 2004. When the maintenance plan was last amended in 1995, it should have projected emissions out to at least 2006, to allow time for EPA to process the requests. In addition, the maintenance plan contains inadequate contingency measures. Contingency measures are needed to correct violations that might occur during the maintenance period, in order to ensure that public health is protected. The only contingency measure provided in the maintenance plans is improved rule effectiveness. No source categories have been chosen, and no rule effectiveness matrix or protocol has been completed.

Comment #5: “The exceedances during the summer of 1995 were the result of unusual meteorological conditions.”

EPA’s Response: Ozone formation is a very complex process, which involves meteorological conditions as well as the concentration of VOCs and NOX in the air. As stated above, attainment of the ozone NAAQS is determined using three consecutive years of data to account for variations in meteorological conditions as well as variations in VOC and NOX emissions. Since we cannot control the weather, we must control levels of ozone in the breathable air by controlling the concentration of NOx and VOC in the air. Our goal is to ensure that everyone is breathing healthy air, regardless of the weather.

Comment #6: "EPA is not treating Pennsylvania in the same manner as other similarly situated states."

According to the commenter, EPA is not treating four other states with pending redesignation requests (Ohio, Kentucky, Michigan and Georgia) for areas that experienced violations in 1995 in the same way as Pittsburgh. The commenter also claims that EPA treated Pittsburgh differently by not approving its November 1993 redesignation request, whereas EPA did approve redesignation requests for other ozone nonattainment areas.

EPA’s Response: EPA is aware of three other ozone nonattainment areas that have pending redesignation requests and that experienced violations of the NAAQS in 1995. These areas include two moderate ozone nonattainment areas: Muskegon, Michigan and the Cincinnati area (a multi-state area that covers parts of Ohio and northern Kentucky); and one marginal area: Birmingham, Alabama.

EPA is not aware of any area in Georgia in this situation. EPA acknowledges that it has not yet


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proposed disapproval of those redesignation requests.

These areas differ from Pittsburgh, however. In the case of the two other moderate areas, EPA's 18-month period for acting on the redesignation requests has not yet expired and EPA is not yet legally obligated to take action on those requests. In contrast, in the case of Pittsburgh, EPA's statutory 18-month period for taking action expired in May of 1995. See CAA § 107(d)(3)(D). Thus, the time period for EPA to act on the Pittsburgh redesignation has expired, but has not done so in the case of Muskegon and Cincinnati. Birmingham is a marginal area that has a less serious ozone air quality problem than Pittsburgh, a moderate area. Although EPA has not yet acted on Birmingham's redesignation request, that fact does not justify further inaction on Pittsburgh's request in light of the expiration of the 18-month statutory time period for acting on Pittsburgh's November 12, 1993 request.

EPA notes that it has not and may not (in light of section 107(d)(1)(A)(i) and 107(d)(3)(E)) approve a redesignation request for an area that is violating the ozone standard. Thus, the three other areas just discussed, like Pittsburgh, are and must remain designated nonattainment areas until they attain the standard and satisfy the other redesignation criteria.

With respect to the comment that EPA treated Pittsburgh differently by not approving its redesignation request while approving others, EPA notes that Pittsburgh, unlike the others EPA approved, does not and did not meet other redesignation criteria of section 107(d)(3)(E). (See Response to Comment 4.) Thus, EPA did not treat Pittsburgh differently from other similarly situated areas by not approving its redesignation request while approving others. The others satisfied the statutory criteria for redesignation; Pittsburgh's did not.

Final Action

Because the Pittsburgh area is not eligible for redesignation, EPA is disapproving Pennsylvania's request for redesignation of the Pittsburgh area and the accompanying maintenance plan, which was originally submitted on November 12, 1993, and amended on January 13, 1994 and May 12, 1995.

When the final disapproval of the maintenance plan is effective, the Pittsburgh area will no longer be able to demonstrate conformity to the submitted maintenance plan pursuant to the transportation conformity requirements in 40 CFR 93.128(i). Since the submitted maintenance plan budget will no longer apply for transportation conformity purposes, the build/no-build and less-than-90 tests will apply pursuant to 40 CFR 93.122. In addition, the Commonwealth submitted a 15% rate-of-progress plan (15% plan) on March 22, 1996. Ninety days after this submittal date, the emissions budget contained in this 15% plan will apply for conformity purposes pursuant to 40 CFR 93.118 and 93.128(a)(1)(i), as well as the build/no-build test under 40 CFR 93.122.

Nothing in this action should be construed as permitting or allowing or establishing a precedent for any future request for revision to any state implementation plan. Each request for revision to the state implementation plan shall be considered separately in light of specific technical, economic, and environmental factors and in relation to relevant statutory and regulatory requirements.

Under Section 202 of the Unfunded Mandates Reform Act of 1995 ("Unfunded Mandates Act"), signed into law on March 22, 1995, EPA must prepare a budgetary impact statement to accompany any proposed or final rule that includes a Federal mandate that may result in estimated costs to State, local, or tribal governments in the aggregate; or to the private sector, of $100 million or more. Under section 205, EPA must select the most cost-effective and least burdensome alternative that achieves objectives of the rule or is consistent with statutory requirements. Section 203 requires EPA to establish a plan for informing and advising any small governments that may be significantly or uniquely impacted by the rule.

EPA has determined that the approval action proposed/promulgated does not include a Federal mandate that may result in estimated costs of $100 million or more to either State, local, or tribal governments in the aggregate, or to the private sector. This Federal action approves pre-existing requirements under State or local law and imposes no new Federal requirements.

Accordingly, no additional costs to State, local, or tribal governments, or to the private sector, result from this action.

As described in the NPR, EPA has determined that the disapproval of the redesignation request will not affect a substantial number of small entities. EPA's denial of the Commonwealth's redesignation request under section 107(d)(3)(E) of the Act does not affect any existing requirements applicable to the transportation area or do it impose new requirements. The area retains its current designation status and will continue to be subject to the same statutory requirements. To the extent that the area must adopt regulations, based on its nonattainment status, EPA will review the effect of those actions on small entities at the time the Commonwealth submits those regulations.

This action has been classified as a Table 3 action for signature by the Regional Administrator under the procedures published in the Federal Register on January 19, 1989 (54 FR 2214-2225), as revised by a July 10, 1995 memorandum from Mary Nichols, Assistant Administrator for Air and Radiation. The Office of Management and Budget (OMB) has exempted this regulatory action from E.O. 12866 review.

Under section 307(b)(1) of the Clean Air Act, petitions for judicial review of this action, pertaining to the disapproval of Pennsylvania's redesignation request and maintenance plan for the Pittsburgh ozone nonattainment area, must be filed in the United States Court of Appeals for the appropriate circuit by July 1, 1996. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this rule for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. This action may not be challenged later in proceedings to enforce its requirements. (See section 307(b)(2).)

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Hydrocarbons, Nitrogen dioxide, Ozone, Reporting and recordkeeping requirements.