

218.602, 218.611; Subpart AA: 218.620, 218.623 (repealed); Subpart CC; Subpart DD; Subpart PP: 218.920, 218.926; Subpart QQ: 218.940, 218.946; Subpart RR: 218.960, 218.966; Subpart TT: 218.980, 218.986; Subpart UU: 218.991. These sections were adopted on January 6, 1994, Amended at 18 Ill. Reg. 1945, effective January 24, 1994.

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3. Section 52.741 is amended by revising paragraph (a)(2) to read as follows:

§ 52.741 Control Strategy: Ozone control measures for Cook, DuPage, Kane, Lake, McHenry or Will County.

(a) * * *

(2) Applicability.

(i) Effective October 11, 1994, Illinois Administrative Code Title 35: Environmental Protection, Subtitle B: Air pollution, Chapter I: Pollution Control Board, Subchapter c: Emissions Standards and Limitations for Stationary Sources, Part 218: Organic Material Emission Standards and Limitations for the Chicago Area replaces the requirements of 40 CFR 52.741 Control strategy: Ozone control measures for Cook, DuPage, Kane, Lake, McHenry and Will County as the federally enforceable control measures in these counties except as noted in paragraphs (a)(2)(i) (A) through (C) of this section.

(A) Until March 26, 1996, Illinois' major non-CTG sources in the Chicago area, subject to paragraph u, v, w, or x because of the applicability criteria in these paragraphs, continue to be subject to paragraphs u, v, w, x, and in addition they remain subject to the recordkeeping requirements in paragraph y and any related parts of section 52.741 necessary to implement these paragraphs, e.g., those paragraphs containing test methods, definitions, etc.

(B) In accordance with Section 218.101(b), all FIP requirements remain in effect and are enforceable after October 11, 1994, for the period prior to October 11, 1994 (and the major non-CTG FIP requirements specified in paragraph (a)(2)(i)(A) remain in effect and are enforceable after March 26, 1996 for the period prior to March 26, 1996.

(C) Any source that received a stay, as indicated in Section 218.103(a)(2), remains subject to the stay if still in effect, or (if the stay is no longer in effect) the federally promulgated rule applicable to such source.

(ii) Effective March 26, 1996, Illinois Administrative Code Title 35: Environmental Protection, Subtitle B: Air pollution, Chapter I: Pollution Control Board, Subchapter c: Emissions

Standards and Limitations for Stationary Sources, Part 218: Organic Material Emission Standards and Limitations for the Chicago Area replaces the requirements of 40 CFR 52.741 Control strategy: Ozone control measures for Cook, DuPage, Kane, Lake, McHenry and Will County as the federally enforceable control measures in these counties except as noted in paragraphs (a)(2)(i) (A) and (B) of this section.

(A) In accordance with Section 218.101(b), all major non-CTG FIP requirements specified in paragraph (a)(2)(i)(A) remain in effect and are enforceable after March 26, 1996 for the period prior to March 26, 1996.

(B) Any source that received a stay, as indicated in Section 218.103(a)(2), remains subject to the stay if still in effect, or (if the stay is no longer in effect) the federally promulgated rule applicable to such source.

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40 CFR Part 52

[IL99-2-7003, IN46-2-7004, MI33-2-7005, WI47-2-7006; FRL-5402-8]

Approval of a Section 182(f) Exemption; Illinois, Indiana, Michigan, and Wisconsin

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: As requested by the States of Illinois, Indiana, Michigan, and Wisconsin in a July 13, 1994 submittal pursuant to section 182(f)(3) of the Clean Air Act (CAA or the Act), the EPA is granting exemptions from the Reasonably Available Control Technology (RACT) and New Source Review (NSR) requirements for major stationary sources of Oxides of Nitrogen (NO_x) and from vehicle Inspection/Maintenance (I/M) and general conformity requirements for NO_x for ozone nonattainment areas within the Lake Michigan Ozone Study (LMOS) modeling domain, which includes portions of the States of Illinois, Indiana, Michigan, and Wisconsin. The EPA is also granting exemptions from transportation conformity requirements for NO_x for ozone nonattainment areas classified as marginal or transitional within the LMOS modeling domain. The EPA is approving the exemptions based on a demonstration that additional NO_x reductions would not contribute to attainment of the National Ambient Air Quality Standard (NAAQS)

for ozone within the LMOS modeling domain. The EPA is not taking final action at this time on the granting of exemptions from the transportation conformity requirements of the CAA for ozone nonattainment areas classified as moderate or above in the LMOS modeling domain. The continued approval of these exemptions is contingent on the results of the final ozone attainment demonstrations and plans. These plans are expected to be submitted by mid-1997 and to incorporate the results of the Ozone Transport Assessment Group process. The attainment plans will supersede the initial modeling information which is the basis for the waiver EPA is granting in this document. To the extent the attainment plans include NO_x controls on certain major stationary sources in the LMOS ozone nonattainment areas, EPA will remove the NO_x waiver for those sources. To the extent the final plans achieve attainment of the ozone standard without additional NO_x reductions from certain sources, the NO_x emissions control exemption would continue for those sources. EPA's rulemaking action to reconsider the initial NO_x waiver may occur simultaneously with rulemaking action on the attainment plans.

DATES: This final rule will be effective February 26, 1996.

ADDRESSES: Copies of the exemption request, public comments and EPA's responses are available for inspection at the following address: United States Environmental Protection Agency, Region 5, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604.

FOR FURTHER INFORMATION CONTACT: Edward Doty, Regulation Development Section (AR-18J), Regulation Development Branch, Air and Radiation Division, United States Environmental Protection Agency, Region 5, 77 West Jackson Boulevard, Chicago, Illinois 60604, Telephone Number (312) 886-6057.

SUPPLEMENTARY INFORMATION:

I. Background Information

On July 13, 1994, the States of Illinois, Indiana, Michigan, and Wisconsin submitted a petition to the EPA requesting that the ozone nonattainment areas within the LMOS modeling domain be exempted from requirements to implement NO_x controls pursuant to section 182(f) of the Act. The exemption request is based on modeling demonstrating that additional NO_x emission controls within the nonattainment areas will not contribute

to attainment of the ozone NAAQS within the LMOS modeling domain.

On March 6, 1995, EPA published a rulemaking proposing approval of the NO_x exemption petition and specifically identifying the Counties or areas covered by the exemption. During the 30 day public comment period, EPA received a number of comments favoring or objecting to the proposed approval. In addition to these comments, the EPA also received adverse comments objecting to any NO_x control waiver within the United States, with the commenters requesting that these comments be addressed in all EPA rulemakings dealing with such emission control waivers.

II. Public Comments

The following discussion summarizes the comments received regarding the States' petition and/or EPA's proposed rulemaking and presents EPA's responses to these comments.

Comment: A number of comments supporting the proposed rulemaking were received from organizations representing various industrial groups, local planning organizations, and the States themselves. One commenter, who generally supported the proposed rulemaking, noted that the EPA proposed to reverse its decision on the petition if subsequent modeling results supported such a reversal. The commenter raised a concern that the EPA should only reverse its decision to approve the petition if well documented modeling results are available clearly indicating the need for such a reversal.

Response: The favorable comments support the logic used in the proposed rulemaking.

With regard to the concern over the quality of the modeling results needed to reverse this decision, it should be noted that such modeling results will be well documented and are expected to be based on validated modeling. The States involved in the LMOS are conducting a number of additional modeling analyses (subsequent to the preparation of the NO_x waiver request) to assess the impacts of emission controls on peak ozone concentrations and on ozone concentrations transported out of the modeling domain (long range ozone transport has become a significant issue in the development of ozone demonstrations of attainment in the eastern United States). Additional modeling analyses are required to support the States' demonstrations of attainment, which have not been completed. These modeling analyses are well documented and are now based on a modeling system which has been accepted by the EPA as being validated

for the LMOS modeling domain. Any conclusion showing the need for NO_x controls will be well supported by the modeling.

It should be noted that the modeling used to support the NO_x waiver petition was not based initially on validated modeling. The modeling system and its base year inputs were modified to a validated form subsequent to the submittal of the petition. Nonetheless, the "signals" of the modeling results regarding Volatile Organic Compound (VOC) controls versus NO_x controls have not changed with the validation of the modeling system. The modeling results continue to show that NO_x emission controls in the ozone nonattainment areas will not contribute to reduction of peak ozone levels within the LMOS modeling domain, and may actually increase peak ozone levels near the major urban areas.

Comment: A commenter, who supports the proposed NO_x exemption, considers the exemption, through section 182(f), to also increase the major source threshold relating to federal operating permit programs from 25 tons/year (tpy) to 100 tpy (this comment is assumed to apply to the ozone nonattainment areas classified as severe).

Response: The commenter is correct. Based on guidance contained in 40 CFR Part 70.2 (subparagraph (3)(1) under the "major source" definition), the major source threshold for federal operating programs would be revised to 100 tpy, potential to emit, in the areas covered by the NO_x waiver. In addition, for new source considerations, it should be noted that the waived areas should be considered to be covered by Prevention of Significant Deterioration requirements, with a control source size threshold of 250 tpy, potential to emit, for NO_x rather than by nonattainment area new source requirements.

Comment: A commenter notes that, in addition to modeling data supporting approval of the petition, monitoring data were collected during the 1991 LMOS field study which also support the approval of the NO_x waiver. The combination of modeling data and monitoring data meet the requirements for a section 182(f) exemption specified in EPA's guidance documents titled: "State Implementation Plan; Nitrogen Oxides Implementation of Title I of the Clean Air Act Amendments of 1990" (57 FR 55628, November 25, 1992); and the "Guideline for Determining Applicability of Nitrogen Oxide Requirement under Section 182(f)" (December 1993).

Response: Although the commenter did not specifically reference the data

from which this conclusion was drawn, EPA acknowledges that data, such as concentrations of non-methane hydrocarbons and NO_x and derived/monitored ozone production potentials of air parcels, collected for the urban source areas during the 1991 field study support the approval of the NO_x waiver. It is noted, however, that the primary basis for the approval of the NO_x waiver is the modeling results submitted in support of the waiver. The 1991 field data by themselves may not be an adequate support for the waiver since these data are limited in nature and do not present a complete picture of the impacts of NO_x controls on LMOS modeling domain peak ozone concentrations.

Comment: Commenters argue that NO_x exemptions are provided for in two separate parts of the Act, in sections 182(b)(1) and 182(f). Because the NO_x exemption tests in sections 182(b)(1) and 182(f)(1) include language indicating that action on such requests should take place "when [EPA] approves a plan or plan revision," these commenters conclude that all NO_x exemption determinations by the EPA, including exemption actions taken under the petition process established by section 182(f)(3), must occur during consideration of an approvable attainment or maintenance plan, unless the area has been redesignated as attainment. The commenters also argue that even if the petition procedures of section 182(f)(3) may be used to relieve areas of certain NO_x requirements, exemptions from the NO_x conformity requirements must follow the process provided in section 182(b)(1), since this is the only provision explicitly referenced by section 176(c), the Act's conformity provisions.

Response: Section 182(f) contains very few details regarding the administrative procedures for acting on NO_x exemption requests. The absence of specific guidelines by Congress leaves the EPA with discretion to establish reasonable procedures consistent with the requirements of the Administrative Procedure Act (APA).

The EPA disagrees with the commenters regarding the process for considering NO_x exemption requests under section 182(f), and instead believes that sections 182(f)(1) and 182(f)(3) provide independent procedures by which the EPA may act on NO_x exemption requests. The language in section 182(f)(1), which indicates that the EPA should act on NO_x exemptions in conjunction with action on a plan or a plan revision, does not appear in section 182(f)(3). While section 182(f)(3) references section

182(f)(1), the EPA believes that this reference encompasses only the substantive tests in paragraph (1) [and by extension, paragraph (2)], not the procedural requirement that the EPA act on exemptions only when acting on State Implementation Plans (SIPs). Additionally, section 182(f)(3) provides that "person[s]" [which section 302(e) of the Act defines to include States] may petition for NO_x exemptions "at any time," and requires the EPA to make its determination within six months of the petition's submission. These key differences lead EPA to believe that Congress intended the exemption petition process of paragraph (3) to be distinct and more expeditious than the longer plan revision process intended under paragraph (1).

With respect to major stationary sources, section 182(f) requires States to adopt NO_x RACT and NSR rules, unless exempted. These rules were generally due to be submitted to the EPA by November 15, 1992. Thus, in order to avoid the CAA sanctions, areas seeking a NO_x exemption would have needed to submit this exemption request for EPA review and rulemaking action several months before November 15, 1992. In contrast, the CAA specifies that the attainment demonstrations were not due until November 1993 or 1994 (and EPA may take 12 to 18 months to approve or disapprove the demonstrations). For marginal ozone nonattainment areas (subject to NO_x NSR), no attainment demonstrations are called for in the CAA. For areas seeking redesignation to attainment of the ozone NAAQS, the CAA does not specify a deadline for submittal of maintenance demonstrations (in reality, EPA would generally consider redesignation requests without accompanying maintenance plans to be unacceptable). Clearly, the CAA envisions the submittal of and EPA action on NO_x exemption requests, in some cases, prior to submittal of attainment or maintenance demonstrations.

With respect to the comment that section 182(b)(1) is the appropriate authority for granting interim-period transportation conformity NO_x exemptions, EPA agrees with the commenters and has published an interim final rule that changes the transportation conformity rule's reference to section 182(b)(1) as the correct authority under the Act for waiving the NO_x build/no-build and less-than-1990 emissions tests for certain areas. See 60 FR 44762 (A related proposed rule, 60 FR 44790, published on the same day, invited public comment on how the Agency plans to implement section 182(b)(1)

transportation conformity NO_x exemptions. That proposal has been subsequently finalized. See 60 FR 57179). However, EPA also notes that section 182(b)(1), by its terms, only applies to moderate and above ozone nonattainment areas. Consequently, EPA believes that the interim-reductions requirements of section 176(c)(3)(A)(iii), and hence the authority provided in section 182(b)(1) to grant relief from those interim-reduction requirements, apply only with respect to those areas that are subject to section 182(b)(1). EPA intends to continue to apply the transportation conformity rule's build/no-build and less-than-1990 emissions tests for purposes of implementing the requirements of section 176(c)(1), and EPA intends to continue to provide relief from those requirements under section 182(f). In addition, because general federal actions are not subject to section 176(c)(3)(A)(iii), which explicitly references section 182(b)(1), EPA will also continue to offer relief under section 182(f)(3) from the applicable NO_x requirements of the general conformity rule.

In order to demonstrate conformity, transportation-related federal actions that are taken in ozone nonattainment areas not subject to section 182(b)(1) and, hence, not subject to section 176(c)(3)(A)(iii) must still be consistent with the criteria specified under section 176(c)(1). Specifically, these actions must not, with respect to any standard, cause or contribute to new violations, increase the frequency or severity of existing violations, or delay attainment. In addition, such actions must comply with the relevant requirements and milestones contained in the applicable state implementation plan, such as reasonable further progress schedules, assumptions specified in the attainment or maintenance demonstrations, numerical emission limits, or prohibitions. EPA believes that the build/no-build and less-than-1990 emissions tests provide an appropriate basis for such areas to demonstrate compliance with the above criteria.

As noted earlier, EPA intends to continue to offer relief under section 182(f) from the interim NO_x requirements of the conformity rules that would apply under section 176(c)(1) for the areas not subject to section 182(b)(1) in the manner described above. EPA believes this approach is consistent both with the way NO_x requirements in ozone nonattainment areas are treated under the Act generally, and under section 182(f) in particular. The basic approach of the Act is that NO_x reductions should apply when beneficial to an area's

attainment goals, and should not apply when unhelpful or counterproductive. Section 182(f) reflects this approach but also includes specific substantive tests which provide a basis for EPA to determine when NO_x requirements should not apply. There is no substantive difference between the technical analysis required to make an assessment of NO_x impacts on attainment in a particular area whether undertaken with respect to mobile source or stationary source NO_x emissions. Moreover, where EPA has determined that NO_x reductions will not benefit attainment or would be counterproductive in an area, the EPA believes it would be unreasonable to insist on NO_x reductions for purposes of meeting reasonable further progress or other milestone requirements. Thus, even as to the conformity requirements of section 176(c)(1), EPA believes it is reasonable and appropriate, first, to offer relief from the applicable NO_x requirements of the general and transportation conformity rules in areas where such reductions would not be beneficial and, second, to rely in doing so based on the exemption tests provided in section 182(f).

For moderate and above ozone nonattainment areas which are relying on modeling data in petitioning for a transportation conformity NO_x exemption, the proposed change affects the process for applying for such waivers. Unlike section 182(f)(3), section 182(b)(1) requires that EPA approve a NO_x waiver (i.e., determine that additional reductions of NO_x would not contribute to attainment) as part of a SIP revision. Thus, under section 182(b)(1), petitions for transportation conformity NO_x waivers for areas subject to that section must be submitted as formal SIP revisions by the Governor (or designee) following a public hearing. As explained previously, EPA will continue to process and approve, under section 182(f)(3), conformity NO_x waivers for areas not subject to section 182(b)(1) without public hearings or submission by the Governor. Finally, as noted earlier, the NO_x provisions of the general conformity rule would not be affected by this proposal. A NO_x waiver under section 182(f) removes the NO_x general conformity requirements entirely and would continue to do so. The Clean Air Act's provision for transportation conformity NO_x waivers stems from section 176(c)(3)(A)(iii), which addresses only transportation conformity, and not general conformity. Therefore, the statutory authority for general conformity NO_x waivers is not

required to be section 182(b) for any areas and may continue to be section 182(f) for all areas.

It should be noted that EPA is taking no final action on a NO_x exemption for transportation conformity for ozone nonattainment areas classified as moderate and above in the petition covered by this rulemaking. The States of Illinois, Indiana, Michigan, and Wisconsin may seek a transportation conformity NO_x exemption for such areas through formal SIP revisions pursuant to section 182(b)(1) of the Act (Illinois and Wisconsin have submitted such SIP revisions, which are currently being reviewed by the EPA).

Comment: Commenters argue that waiver of NO_x control requirements is unlawful if such a waiver would impede attainment and maintenance of the ozone standard in downwind areas.

Response: As a result of these comments, the EPA reevaluated its position on this issue and has revised the previously issued guidance. See Memorandum, "Section 182(f) Nitrogen Oxides (NO_x) Exemptions—Revised Process and Criteria" dated February 8, 1995, for John Seitz's signature. As described in this memorandum, EPA intends to use its authority under section 110(a)(2)(D) to require a State to reduce NO_x emissions from stationary and/or mobile sources where there is evidence, such as photochemical grid modeling, showing that the NO_x emissions could contribute significantly to nonattainment in, or interfere with maintenance by, any other State or in another nonattainment area within the same State. This action would be independent of any action taken by EPA on a NO_x exemption request under section 182(f). That is, EPA action to grant or deny a NO_x exemption request under section 182(f) for any area would not shield that area from EPA action to require NO_x emission reductions, if necessary, under section 110(a)(2)(D).

Significant new modeling analyses are being conducted by the Lake Michigan Air Directors Consortium (LADCO) (the technical and functional directors of the Lake Michigan Ozone Study and the Lake Michigan Ozone Control Program, including representatives of the four LMOS States and the EPA), EPA and other agencies as part of the Ozone Transport Assessment Group (OTAG) process. The OTAG process is a consultative process among the eastern States and EPA. The OTAG process, which ends at the close of 1996, assesses national and regional emission control strategies using improved modeling techniques. The goal of the OTAG process is for EPA and the affected States to reach consensus on

the additional regional and national emission reductions that are needed for attainment of the ozone standard. Based on the results of the OTAG process, States are expected to submit by mid-1997 attainment plans which show attainment of the ozone standard through local, regional, and national controls.

The OTAG plans to complete additional modeling between now and September 1996 using emissions data and strategies currently being developed among OTAG workgroups. These new analyses will improve the information available on NO_x and VOC impacts on ozone concentrations both in the LMOS area and over the eastern half of the United States. These analyses will for example, provide more accurate boundary conditions for the LMOS area analyses; this provides greater accuracy in both the attainment plan and in the decision regarding NO_x reductions contribution to attainment.

In light of the modeling completed thus far and considering the importance of the OTAG process and attainment plan modeling efforts, EPA is granting this waiver on a contingent basis. As the OTAG modeling results and control recommendations are completed in 1996, this information will be incorporated into the attainment plans being developed by the LADCO States. When these attainment plans are submitted to EPA in mid-1997, these new modeling analyses will be reviewed to determine if the NO_x waiver should be continued, altered, or removed.

The attainment plans will supersede the initial modeling results which are the basis for the waiver which EPA is granting in this rule. To the extent the attainment plans include NO_x controls on certain major stationary sources in the LMOS ozone nonattainment areas, EPA will remove the NO_x waiver for those sources. To the extent the plans achieve attainment without additional NO_x reductions from certain sources, the NO_x reductions would be considered excess reductions and, thus, the exemption would continue for those sources. EPA's rulemaking action to reconsider the initial NO_x waiver may occur simultaneously with rulemaking action on the attainment plans.

Comment: Comments were received regarding the scope of exemption of areas from the NO_x requirements of the conformity rules. The commenters argue that such exemptions waive only the requirements of section 182(b)(1) to contribute to specific annual reductions; not the requirement that conformity SIPs contain information showing the maximum amount of motor vehicle NO_x emissions allowed under the

transportation conformity rules and, similarly, the maximum allowable amounts of any such NO_x emissions under the general conformity rules. The commenters admit that, in prior guidance, EPA has acknowledged the need to amend a drafting error in the existing transportation conformity rules to ensure consistency with motor vehicle emissions budgets for NO_x, but want EPA, in actions on NO_x exemptions, to explicitly affirm this obligation and to also avoid granting waivers until a budget controlling future NO_x increases is in place.

Response: As explained previously, EPA's transportation conformity rule originally provided for a NO_x waiver if an area received a section 182(f) exemption. The EPA published amendments to the transportation conformity rule in a final rule on November 14, 1995 (60 FR 57179) which addresses the issue of conformity to NO_x budgets in SIPs when a NO_x waiver for transportation conformity has been approved. The final rule is based on an August 29, 1995 (60 FR 44790) proposed rule and comments which were received regarding that proposal. The final rule requires consistency with NO_x motor vehicle emissions budgets in control strategy SIPs regardless of whether a NO_x waiver has been granted. The NO_x build/no-build tests and less-than-1990 tests, however, no longer apply to ozone nonattainment areas receiving a NO_x waiver. Furthermore, some flexibility is possible for areas that have been issued a NO_x waiver based on air quality modeling data. This flexibility is described in the notice of final rulemaking (60 FR 57183). The NO_x emission budget provisions of the revised rules will be effective 90 days after the date of the final rule (November 14, 1995).

Comment: Commenters argue that the Act does not authorize any waiver of the NO_x reduction requirements until conclusive evidence exists that such reductions are counterproductive.

Response: EPA does not agree with this comment since it ignores the Congressional intent as evidenced by the plain language of section 182(f), the structure of the Title I ozone subpart as a whole, and relevant legislative history. By contrast, in developing and implementing its NO_x exemption policies, EPA has sought an approach that reasonably accords with that intent. Section 182(f), in addition to imposing control requirements on major stationary sources of NO_x similar to those that apply for sources of VOC, also provides for an exemption (or limitation) from application of these requirements if, under one of several

tests, EPA determines that in certain areas NO_x reductions would generally not be beneficial towards attainment of the ozone standard. In section 182(f)(1), Congress explicitly conditioned action on NO_x exemptions on the results of an ozone precursor study required under section 185B of the Act. Because of the possibility that reducing NO_x in an area may either not contribute to ozone attainment or may cause the ozone problem to worsen, Congress included attenuating language, not just in section 182(f), but throughout Title I of the Act, to avoid requiring NO_x reductions where such would not be beneficial or would be counterproductive. In describing these various ozone provisions, including section 182(f), the House Conference Committee Report states in the pertinent part: “[T]he Committee included a separate NO_x/VOC study provision in section [185B] to serve as the basis for the various findings contemplated in the NO_x provisions. The Committee does not intend NO_x reduction for reduction’s sake, but rather as a measure scaled to the value of NO_x reductions for achieving attainment in the particular ozone nonattainment area.” H.R. Rep. No. 490, 101st Cong., 2d Sess. 257–258 (1990).

As noted in response to an earlier comment, the command in section 182(f)(1) that EPA “shall consider” the 185B report taken together with the timeframe the Act provides for completion of the report and for acting on NO_x exemption petitions clearly demonstrate that Congress believed the information in the completed section 185B report would provide a sufficient basis for EPA to act on NO_x exemption requests, even absent the additional information that would be included in affected areas’ attainment or maintenance demonstrations.

While there is no specific requirement in the Act that EPA actions granting NO_x exemption requests must await “conclusive evidence,” as the commenters argue, there is also nothing in the Act to prevent EPA from revisiting an approved NO_x exemption if warranted by additional, current information.

In addition, the EPA believes, as described in EPA’s December 1993 guidance, that section 182(f)(1) of the Act provides that the new NO_x requirements shall not apply (or may be limited to the extent necessary to avoid excess reductions) if the Administrator determines that any one of the following tests is met:

(1) in any area, the net air quality benefits are greater in the absence of

NO_x reductions from the sources concerned;

(2) in nonattainment areas not within an ozone transport region, additional NO_x reductions would not contribute to ozone attainment in the area; or

(3) in nonattainment areas within an ozone transport region, additional NO_x reductions would not produce net ozone air quality benefits in the transport region. Based on the plain language of section 182(f), EPA believes that each test provides an independent basis for a full or limited NO_x exemption.

Only the first test listed above is based on a showing that NO_x reductions are “counter productive.” If one of the tests is met (even if another test is failed or not applied), the section 182(f) NO_x requirements would not apply or, under the excess reductions provision, a portion of these requirements would not apply.

Comment: Commenters argue that, while NO_x controls may be less beneficial than VOC-only controls in reducing ozone concentrations in some areas of the Lake Michigan region on some days, the States have not demonstrated that VOC-only controls will sufficiently reduce ozone concentrations for the majority of episodes, particularly in areas farther downwind.

Response: Several modeling and data analyses were performed by the States and LADCO to examine the relative benefits of VOC versus NO_x emission controls. The modeling analyses included emissions sensitivity tests for several different basecase scenarios, including: (1) an original base period emissions inventory; (2) increased VOC emissions in the base period inventory (higher VOC/NO_x ratios); (3) increased base period VOC/NO_x ratios through either increased VOC emissions or decreased NO_x emissions; and (4) differences in photochemistry photolysis rates as applied in the Urban Airshed Model—Version IV (UAM-IV) (the photochemical dispersion model generally accepted and supported by the EPA) and in UAM-V (the photochemical dispersion model approved by the EPA for use in the LMOS).

Despite differences in the absolute and relative amounts of VOC and NO_x emissions in the sensitivity analyses, the analyses found that the modeled domain-wide peak ozone concentration, the areal coverage of modeled ozone concentrations exceeding 120 parts per billion (ppb), and the number of hours with modeled ozone concentrations exceeding 120 ppb decreased in response to VOC emission reductions and increased in response to NO_x

emission reductions (up to more than 60 percent controls for some episode analysis days) for all modeled episodes.

VOC and NO_x emission reductions were found to produce different impacts spatially. In and downwind of major urban areas, within the ozone nonattainment areas, VOC reductions were effective in lowering peak ozone concentrations, while NO_x emission reductions resulted in increased peak ozone concentrations. Farther downwind, within attainment areas, VOC emissions reductions became less effective for reducing ozone concentrations, while NO_x emission reductions were effective in lowering ozone concentrations. It must be noted, however, that the magnitude of ozone decreases farther downwind due to NO_x emission reductions was less than the magnitude of ozone increases in the ozone nonattainment areas as a result of the same NO_x emission reductions.

Analyses of ambient data by LMOS contractors provided results which corroborated the modeling results. These analyses identified areas of VOC- and NO_x-limited conditions (VOC-limited conditions would imply a greater sensitivity of ozone concentrations to changes in VOC emissions. The reverse would be true for NO_x-limited conditions.) and tracked the ozone and ozone precursor concentrations in the urban plumes as they moved downwind. The analyses indicated VOC-limited conditions in the Chicago/Northwest Indiana and Milwaukee areas and NO_x-limited conditions further downwind. These results imply that VOC controls in the Chicago/Northwest Indiana and Milwaukee areas would be more effective at reducing peak ozone concentrations within the severe ozone nonattainment areas.

The consistency between the modeling results and the ambient data analysis results for all episodes with joint data supports the view that the UAM-V modeling system developed in the LMOS may be used to investigate the relative merits of VOC versus NO_x emission controls. The UAM-V results for all modeled episodes point to the benefits of VOC controls versus NO_x controls in reducing the modeled domain peak ozone concentrations.

Comment: Commenters argue that the UAM-V modeling system is experimental and untested and has not yet undergone extensive peer review by independent experts, unlike the Regional Oxidant Model (ROM) supported by the EPA. The EPA should review the ROM results for the episodes modeled in the LMOS to show

consistency between the ROM results and those for UAM-V.

Response: Even though the UAM-V modeling system is relatively new, it has undergone external review. LADCO supported an external review of the computer code used in the modeling system and an external evaluation of model performance in the Lake Michigan region. Modeling results show that the system, as it is currently being used for control strategy analyses, produces ozone concentrations which meet EPA-established criteria for adequate model performance.

Direct comparisons of ROM and UAM-V results must be conducted with caution and may produce conflicting results even though both modeling systems are performing adequately. The UAM-V modeling system is theoretically more complete and incorporates improved scientific principles and more area-specific input data. ROM, on the other hand, is a simpler modeling system with lower spatial resolution, more uncertain emission estimates, and no special treatment of meteorological phenomena, such as lake-breeze effects (critical factors in the Lake Michigan area), and individual source plumes for large sources. These differences in model formulation and data input resolution as well as differences in output resolution may preclude direct comparisons of the two models. It should be noted, that such a comparison may be attempted in the near future because UAM-V may be applied to a larger domain to assess the impacts of long range transport of ozone and ozone precursors.

Comment: Commenters state that the EPA must rely on the recent National Academy of Sciences (NAS) report in its review of NO_x waivers. The commenters pointed out that the NAS report found that to reduce transported ozone, NO_x reductions are needed.

Response: The NAS report and EPA's companion report both support the conclusion that, as a general matter for ozone nonattainment areas across the country, NO_x reductions in addition to VOC reductions will be needed to achieve attainment. This general conclusion, however, must be assessed in the context of the more detailed analysis provided in those same reports. For example, the NAS report notes that NO_x reductions can have either a beneficial or detrimental effect on ozone concentrations, depending on the locations and emission rates of VOC and NO_x sources in a region. The effect of NO_x reductions depends on the local VOC/NO_x ratio and a variety of other factors. In its report issued pursuant to section 185B of the Act, EPA stated that

“[a]pplication of gridded photochemical models on a case by case basis is required to determine the efficacy of NO_x controls, because the ozone response to precursor reductions is area specific.”

The analyses performed in the Lake Michigan region demonstrate a local disbenefit from NO_x control in the urban nonattainment areas. Those same analyses suggest there would be ozone benefits experienced farther downwind from NO_x control in the urban nonattainment areas. LADCO acknowledges that NO_x controls in the LMOS modeling domain may be needed ultimately to reduce ozone transport in the eastern United States. Nonetheless, the modeling results show that, due to the ozone reduction disbenefits associated with NO_x reductions for the ozone nonattainment areas in the LMOS domain, these areas meet the test under section 182(f)(1)(A) of the Act required to support a waiver from the NO_x requirements of section 182(f).

Comment: Commenters believe that NO_x emission reductions will not only reduce transported ozone, but will also improve visibility, especially in downwind Class I areas.

Response: The NO_x control waiver request was submitted in conjunction with the preparation of a four-State ozone control plan. To this end, the focus is on the local ozone problem in the Lake Michigan region. Other air pollution problems will be dealt with as part of separate regulatory activities.

Comment: Commenters argue that the burden of proof is on the States and LADCO to demonstrate that NO_x reductions will not be beneficial over the entire Lake Michigan region. It was the explicit intent of Congress that NO_x reductions are to be presumed to be beneficial unless demonstrated otherwise.

Response: Modeling and data analyses addressed in the States' NO_x waiver request demonstrate the positive benefits of VOC control in the major urban areas and downwind in the areas of highest ozone concentrations. These analyses also show the negative effects of NO_x control in these same ozone nonattainment areas, and suggest positive benefits from NO_x control farther downwind in attainment areas. In other words, the benefits resulting from NO_x control are modelled to occur in areas that experience, based on modeling and monitoring data, ozone concentrations well below the ozone standard even prior to the implementation of emission controls. Consequently, as required under section 182(f), the States have demonstrated the disbenefits of implementing NO_x

emission controls in terms of greater domain-wide peak ozone concentrations throughout the LMOS modeling domain. Since these States are relying on the section 182(f)(1)(4) “contribute to attainment” test, they do not also need to demonstrate NO_x reduction benefits over the entire Lake Michigan region as the commenters claim.

As noted above, the EPA believes, as described in EPA's December 1993 guidance, that section 182(f)(1) of the Act provides that the new NO_x requirements shall not apply if the Administrator determines that any one of the following tests is met:

- (1) in any area, the net air quality benefits are greater in the absence of NO_x reductions from the sources concerned;
- (2) in nonattainment areas not within an ozone transport region, additional NO_x reductions would not contribute to ozone attainment in the area; or
- (3) in nonattainment areas within an ozone transport region, additional NO_x reductions would not produce net ozone air quality benefits in the transport region. Based on the plain language of section 182(f) and the modeling results supplied with the LMOS States' NO_x waiver request, the EPA believes these States have met the requirements of test (2) above since the States have demonstrated that across-the-board NO_x controls in the LMOS ozone nonattainment areas will interfere with the attainment of the ozone standard in these nonattainment areas. Based on the scheme provided by Congress under the Act, it is not necessary for the States to also demonstrate the lack of ozone benefits from NO_x controls everywhere within the entire Lake Michigan region.

As a separate matter and as noted above, the States, LADCO, and the EPA are conducting additional studies on the impact of ozone precursor (including NO_x) emission reductions in areas outside of the LMOS ozone nonattainment areas on downwind ozone concentrations. These studies, in part, will consider the LMOS nonattainment areas as downwind areas to assess the impact of upwind emissions controls on ozone and ozone precursor transport into these areas.

Comment: Commenters argue that LADCO's statistical comparisons provide an incomplete evaluation of model performance and do not assess the model's ability to accurately predict the impact of VOC versus NO_x control.

Response: LADCO, through a September 1994 model evaluation report, has documented a thorough evaluation of the modeling system performance. The model evaluation, which is based on an ideal model

evaluation process proposed by a number of technical experts¹, includes the following elements:

- (1) Evaluations of the scientific formulation of the model;
- (2) Assessment of the fidelity of the computer codes to scientific formulation, governing equations, and numerical solution procedures;
- (3) evaluation of the predictive performance of the individual process modules and preprocessor modules;
- (4) evaluation of the full model's predictive performance;
- (5) application of sensitivity tests to assure conformance of the model with known or expected behavior;
- (6) application of comparative modeling; and
- (7) implementation of quality control/assurance activities.

The September 1994 model evaluation report addressed all of these elements for the modeling system used in the LMOS. In addition, the report also discussed several analyses which were performed specifically to assess the reliability of the model's response to VOC and NO_x emission reductions (see response to comment above concerning the response of the model to VOC-only controls).

The model evaluation conducted for the LMOS modeling system examined performance over as wide a range of emission densities as possible (both spatial and temporal ranges were considered), considered topographic and land use uncertainties, and evaluated the impacts of variations in meteorology. Demonstration of acceptable model performance over this range of conditions reflects correct representation of the governing chemical and physical processes. It is, therefore, reasonable to assume that the model will respond realistically irrespective of emission strengths of VOC versus NO_x.

Comment: Commenters argue that LADCO has failed to conduct additional analyses of model performance which provide a better test of VOC-NO_x sensitivity [e.g., analyses of afternoon concentrations of total reactive nitrogen (NO_y)]. An examination of ambient NO_x concentrations over Lake Michigan clearly show NO_x-limited conditions (i.e., NO_x control should be beneficial for reducing ozone concentrations) and, further, that the modeled NO_x concentrations are overestimated, which would cause the model to incorrectly identify VOC control as being

preferential to NO_x control. NO_x concentrations, as predicted by the model to occur over Lake Michigan (i.e., 90 parts per billion), are unlikely to occur anywhere other than in urban centers.

Response: The September 1994 model evaluation report submitted by LADCO does include the type of analysis suggested by the commenters. This analysis of predicted and measured NO₂ concentrations (NO_y concentrations were not measured making evaluation of modeled results for NO_y impossible. NO_x is assumed to be primarily NO₂ at the peak ozone times and locations.) at the time and location of maximum ozone concentration for each day shows no discernible bias in the model predictions.

The September 1994 model evaluation report also includes a general assessment of model performance for NO₂. Rather than focusing on just one or two days, as was done by the commenters, the evaluation considered all of the modeled high ozone days. The results for all high ozone days demonstrate that model performance overall for NO₂ is good.

The magnitude of the predicted NO_x concentrations over Lake Michigan, as cited by the commenters, is not correct. The model predicted NO₂ concentrations over Lake Michigan on the order of 50 parts per billion or less. NO_x measurements by the LMOS aircraft over Lake Michigan were on the order of 30–50 parts per billion, in good agreement with the model's predicted concentrations (NO_x over Lake Michigan is primarily NO₂).

Comment: Commenters argue that VOC emissions are likely underestimated in the emission inventory used for the LMOS modeling, which would cause a bias in the model towards favoring VOC control. Also, LADCO's finding that its VOC inventory may be low by only 30 percent conflicts with studies elsewhere which suggest a high degree of underestimation.

Response: Several methods were used by LADCO to evaluate the LMOS emissions inventory, including comparisons of ambient to emissions-based nonmethane organic compound to NO_x (NMOC:NO_x) ratios; comparisons of ambient to emissions-based carbon monoxide to NO_x ratios; receptor modeling; and comparisons of ambient to model-based NMOC:NO_x ratios. These analyses for an initial emissions inventory suggested a significant underestimation of VOC emissions, overestimation of NO_x emissions, or some combination of these two. Consequently, LADCO conducted an extensive re-evaluation of the emissions

inventory and made several modifications. The resulting, final emissions inventory was found to compare more closely to the ambient NMOC:NO_x ratios (the ambient NMOC:NO_x ratios are only about 1.0–1.5 times greater than the emissions inventory-based NMOC:NO_x ratios).

To assess the effect of the emissions uncertainty on the model's response to VOC and NO_x reductions, sensitivity tests were performed with a higher VOC:NO_x ratio. The results of this modeling were qualitatively the same (NO_x disbenefits were demonstrated for attainment of the ozone standard) as those found for the unadjusted emissions inventory. Consequently, any possible underestimation of VOC emissions does not affect the conclusions drawn concerning VOC versus NO_x controls.

With regard to the results of other emissions studies, it should first be noted that a certain degree of variability of emissions ratios (NMOC:NO_x) exists depending of the locations of the studies and the sources sampled. Application of the results of these studies to the LMOS source areas is not straight forward and must be viewed to have a high degree of uncertainty. The LMOS results leading to the adjustment of emissions and the favorable comparison of modeled and monitored results lends some credibility to the emissions used in the LMOS.

Secondly, the LMOS States and LADCO, based on the studies of mobile source emissions conducted previously in other areas, recognized the potential for the underestimation of mobile source VOC emissions. This recognition was part of the basis for the comparison of monitored and modeled emissions and the modeling sensitivity studies considering alternate NMOC:NO_x ratios. As indicated above, increased NMOC:NO_x ratios lead to the same conclusions regarding the impacts of VOC versus NO_x emissions controls.

Comment: A commenter notes that the problems with the LMOS modeling are not "routine" model errors. The LMOS model results, as presented in a February 1994 report by Alpine Geophysics, showed large errors in comparison with measurements for certain pollutant species and these errors suggest a bias in favor of VOC control and against NO_x control. The finding that the model systematically overestimates NO_y also suggests that the model is biased in favor of VOC control.

Response: The commenter has chosen to rely on outdated results from a preliminary February 1994 model evaluation report. Since then, as documented, for example, in the

¹ "A Conceptual Framework for Evaluating the Performance of Grid-Based Photochemical Air Quality Simulation Models", Roth, Reynolds, Tesche, and Dennis (1991).

September 1994 model evaluation report submitted to the EPA by LADCO, significant improvements have been made in the modeling system and in its inputs. (See also the discussions in response to other comments regarding the model's performance.) The improved modeling system and its results make moot the concerns of the commenter.

Comment: A commenter is concerned about the quality of the multi-species evaluation contained in the September 1994 model evaluation report. The commenter notes that an interim report indicated that the model performed poorly in modeling the concentrations of paraffins, frequently erring by a factor of two or more. Such an error implies that the model may be biased in favor of VOC controls. The commenter further notes that the September 1994 model evaluation report fails to include a significant discussion of multi-species evaluations, particularly a discussion of modeled versus measured paraffin concentrations.

Response: The September 1994 report does discuss the fact that multi-species analyses were performed for the updated modeling system and updated input data. As noted above, the updated model performed acceptably for the prediction of species such as ozone, NO₂, NO_x, and VOC:NO_x. The report did fail to discuss most other species addressed in the model. LADCO has acknowledged this failure, and has offered to supply any data requested by the EPA. LADCO, however, has indicated, in its own responses to the comments on the proposed approval of the NO_x waiver, that the multi-species performance of the model has significantly improved from past versions of the modeling system and input data. It is not clear how the performance of the model regarding prediction of paraffin concentrations has changed.

Comment: A commenter notes that the emissions inventory used in the modeling underestimates emissions of both anthropogenic and biogenic VOC emissions. A particular deficiency is the lack of any biogenic isoprene emissions in the Chicago area. In addition, the failure to evaluate model performance for isoprene is especially important. Models that recommend VOC-based control strategies should be required to demonstrate that they have not underestimated ambient concentrations of isoprene.

Response: As noted in a response to a comment above, the current version of the emissions inventory used in the modeling reasonably agrees with the ambient data. Although the current

LMOS emissions inventory does not contain biogenic isoprene emissions, calculations made by LADCO, as discussed in LADCO's response to this comment, indicate that this does not result in a significant change in the VOC inventory (addition of biogenic isoprene emissions would only increase the regional VOC inventory by 1 percent or less). Ambient VOC measurements also reflect negligible isoprene concentrations in the Chicago, Gary, and Milwaukee urban areas. The lack of an evaluation of isoprene concentrations should not detract from the overall assessment of model performance.

LADCO has noted that the EPA-recommended emission factors for biogenic isoprene are under review nationally. LADCO has committed to revise the emissions inventory if these emission factors are changed significantly, particularly if they are significantly increased.

LADCO has noted that the UAM-V modeling system has been thoroughly evaluated. In fact this evaluation significantly exceeds the requirements of the EPA and exceeds the evaluations employed for UAM in most other ozone nonattainment areas in the United States.

Comment: A commenter notes that the September 1994 model evaluation report fails to include modeled versus measured NO₂ concentrations from locations that represent maximum measured ozone concentrations. It is also noted that two-thirds of the modeled-measured data pairs that were documented in the model evaluation report lie outside of the factor-of-two range implying poor agreement between modeled and measured concentrations.

Response: LADCO notes that the modeled versus measured NO₂ data were included in the final model evaluation report (October 1994). These data show that there is no discernible bias in the model predictions. Furthermore, only a few data pairs reflect an overprediction by more than a factor of two. Most of the data pairs lie either within the factor-of-two range, or reflect underprediction by more than a factor-of-two (underprediction of NO₂ would favor NO_x control over VOC control in reducing ozone concentrations). Despite the possible underprediction of some NO₂ concentrations, the model continues to show that NO_x control provides disbenefits for attainment of the ozone standard in the LMOS domain.

Comment: It is noted that Table 7 in the September 1994 model evaluation report contains NO_x data which differ from those in a February 1994 model evaluation report. It is also noted that

the September 1994 model evaluation report also fails to include data for a critical site (the Mid-Lake Boat) on July 18, 1991.

Response: The NO_x values contained in the February 1994 report did not reflect the final quality-assured data for the boat-based monitors used in the 1991 LMOS field study. The final data were addressed in the September 1994 model evaluation report. Nevertheless, no firm conclusions should be based on the NO_x data from the boats because these data were found to be suspect.

Table 7 in the September 1994 report did not include the Mid-Lake Boat data for July 18, 1991 because the Boat stopped collecting data on this day after 1600 Central Daylight Time (CDT). The modeling domain-wide peak observed and modeled concentrations, as noted in Table 7, occurred after 1600 CDT. In any case, the peak ozone concentration at the Mid-Lake Boat on this day was 158 parts per billion (1400 CDT). The magnitude of the NO_x concentration for this hour was still fairly high (13 parts per billion), indicating that the air mass may still have been VOC-limited, which favors VOC control of upwind sources over NO_x control for the reduction of ozone levels.

Comment: The February 1994 model evaluation report contains evidence that the mixing algorithm in UAM-V has serious problems. In particular, the model is overestimating ambient NO_x concentrations by a factor of three or more during the mid-July 1991 episode.

Response: The September 1994 model evaluation report shows that the model performance statistics for NO₂ (as noted above, NO_x over Lake Michigan is primarily NO₂ with little NO) during the mid-July episode are reasonable. The spatial concentration plots for NO₂ show that the predicted values are highest in the Chicago downtown area and decrease downwind over Lake Michigan. The latest baseline model input data set (Basecase C) produces significantly lower peak NO₂ concentrations than did the earlier baseline model input data set considered by the commenter. The new input data lead to results similar to concentrations measured in aircraft over Lake Michigan during the 1991 field study.

Comment: A commenter claims that the September 1994 model evaluation report erroneously claims that 1991 field study NO_y measurements were not available and that most local afternoon NO_y is expected to be NO₂.

Response: Contrary to the commenter's claims, NO_y data were not collected during the 1991 field program. The only nitrogen species for which

ambient data were collected were NO, NO₂, NO_x, and peroxyacetyl nitrate (PAN) (collected at only a few sites). LADCO responds and EPA agrees that, while NO_y reflects many nitrogen compounds, NO₂ is a reasonable surrogate for these analyses.

Comment: Commenters note that LADCO has requested and received EPA approval to assume a future modeling domain boundary peak ozone concentration of 60 parts per billion. An analysis of this assumption leads the commenters to conclude that NO_x transported into the modeling domain would have to be reduced by approximately 66 percent from current emission levels. Given the policy established in the approval of the NO_x exemption petition, the commenters question the feasibility of this boundary condition assumption.

Response: It is true that the EPA has approved the assumption of a future modeling domain boundary ozone concentration not exceeding 60 parts per billion. It should be noted, however, that this is a temporary assumption to be used only in the initial phase of ozone modeling needed to develop the areas' final ozone demonstrations of attainment. Regional modeling over a larger domain will be conducted to better assess the level of ozone transport in the Eastern United States. This regional modeling will also assess the impacts of possible national emission control efforts to generally lower ozone precursor emissions throughout this area. The final phase of local ozone modeling will use ozone boundary conditions based on the regional modeling.

It should also be noted that the EPA, under section 110(a)(2)(D) of the Act, may require additional NO_x emission controls in the areas exempted from specific NO_x control requirements under section 182(f) of the Act. The NO_x emission reduction requirements under section 110(a)(2)(D) may exceed those under section 182(f) if the regional modeling supports the need for such emission reductions. The boundary ozone concentration that will ultimately be used in the final demonstrations of attainment will be backed by adequate ozone precursor emission reductions.

Comment: Commenters argue that the NO_x exemption petition ignores the LMOS States' contribution to their own boundary conditions. Insufficient analyses have been presented that consider the benefits in lowered boundary ozone levels that could be achieved during episodes when locally generated ozone and ozone precursors are transported out of and back into the modeling domain. Exceedances

observed on June 18, 1994 are of note in this regard. On this day, it appears that the Chicago/Gary "plume" actually moved north-northeast only to later reimpose itself on the metropolitan area. The benefits for NO_x control are not presented for this meteorological phenomenon.

Response: Modeling for LMOS considered all high ozone episodes in 1991. Modeling for these episodes will form the basis for the ultimate ozone demonstrations of attainment to be completed in 1997 under current EPA policy. The NO_x exemption petition is based on modeling for all of these high ozone episodes, and, as such, meets the modeling requirements in the December 1993 EPA guidance. It should be noted that the episodes considered cover a significant range of meteorological phenomena, including ozone transport and recirculation within the LMOS domain. A more complete picture of ozone transport out of and back into the modeling domain will not be available until after the completion of the regional modeling discussed in the response to the previous comment.

Comment: A commenter argues that incorporating the Michigan Counties of Saginaw, Bay, Genessee, Shiawassee, Midland, Ingham, Jackson, Lenawee, and Calhoun is an attempt to factitiously expand the domain of LADCO's NO_x disbenefit analysis. It is also noted that the EPA has included the fictional Michigan County of Hillside. The commenter argues that, if EPA had intended to exempt Hillsdale County rather than "Hillside County," the EPA should publish a correction notice amending the proposed rulemaking notice.

Response: When LADCO conducted the modeling analysis of NO_x control impacts, NO_x controls were modeled using the LMOS intermediate modeling domain (Grid B). The Counties noted by the commenter are located outside of Grid B. Therefore, LADCO did not determine as part of this modeling effort the potential ozone impacts of NO_x emission reductions for these Counties. It can be noted, however, that the EPA has received and reviewed base period modeling for the larger domain (Grid A) which did include the Counties in question. Base period (1991) modeling of high ozone episodes in the LMOS domain has been determined by the EPA to be validated based on comparison of monitored and modeled ozone concentrations. Modeling results in Grid A in the Counties in question and in their downwind environs shows that the ozone standard is not violated in these areas. This is confirmed by monitoring data collected in 1991

during the LMOS field study. Based on this observation, it can be concluded that additional NO_x emission controls in these Counties would not contribute to attainment of the ozone standard. Therefore, under the "contribute to attainment" test of section 182(f), the NO_x waiver should be approved for these Counties. It should also be noted that emission reductions in the "additional" Counties are not likely to significantly impact peak ozone concentrations in the LMOS modeling domain. (Emission reductions in these Counties, however, may be shown in future regional modeling to lower ozone transport into other ozone nonattainment areas. If such is the case, the State of Michigan may wish to or be requested to consider additional emission controls for these Counties.) A definitive conclusion can not be made here since the ozone and precursors generated by the these Counties are transported out of the modeling domain for most modeled episodes.

The EPA did err in the proposed rulemaking in listing "Hillside County" instead of Hillsdale County. This error is corrected here. This error is not sufficient, in the view of the EPA, to warrant a revised proposed rulemaking. The listing of the covered Counties and the location of Hillsdale County should have led a reviewer (as indeed it did the commenter) of the proposed rulemaking to conclude that the listing of "Hillside County" was a typographical error and that the EPA had intended to list Hillsdale County.

III. Final Action

The comments received were generally found to warrant no changes from the proposed action on this NO_x exemption request with the following exceptions: (1) EPA is not taking final action to approve the NO_x exemption for transportation conformity requirements of the Act for the ozone nonattainment areas in the LMOS domain classified as moderate and above; (2) EPA is correcting the listing of "Hillside County", Michigan to Hillsdale County, Michigan; and (3) in light of the modeling completed thus far and considering the importance of the OTAG process and attainment plan modeling efforts, EPA grants this NO_x waiver on a contingent basis. As the OTAG modeling results and control recommendations are completed in 1996, this information will be incorporated into attainment plans being developed by the LADCO States. When these attainment plans are submitted to EPA in mid-1997, these new modeling analyses will be reviewed

to determine if the NO_x waiver should be continued, altered, or removed.

The final attainment plans will supersede the initial modeling results which are the basis of the NO_x waiver that EPA is granting in this notice. To the extent the attainment plans include NO_x controls on certain major stationary sources in the LMOS ozone nonattainment areas, EPA will remove the NO_x waiver for those sources. To the extent the plans achieve attainment without additional NO_x reductions from certain sources, the NO_x exemption would continue for those sources. EPA's rulemaking action to reconsider the initial NO_x waiver may occur simultaneously with rulemaking action on the attainment plans. EPA reserves the right to require NO_x emission controls in general or on a source-specific basis under section 110(a)(2)(D) of the Act if future ozone modeling demonstrates that such controls are needed to achieve the ozone standard in downwind areas.

This action will become effective on February 26, 1996.

IV. Miscellaneous

A. Applicability to Future SIP Decisions

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

B. Executive Order 12866

This action has been classified as a Table 3 action by the Regional Administrator under the procedures published in the Federal Register on January 19, 1989 (54 FR 2214-2225), as revised by an October 4, 1993 memorandum from Michael Shapiro, Acting Assistant Administrator for Air and Radiation. The Office of Management and Budget has exempted this regulatory action from Executive Order 12866 review.

C. Regulatory Flexibility

Under the Regulatory Flexibility Act, 5 U.S.C. 600 et seq., EPA must prepare a regulatory flexibility analysis assessing the impact of any proposed or final rule on small entities (5 U.S.C. 603 and 604). Alternatively, EPA may certify that the rule will not have a significant impact on a substantial number of small entities. Small entities include small businesses, small not-for-profit

enterprises, and government entities with jurisdiction over populations of less than 50,000.

This approval does not create any new requirements. Therefore, I certify that this action does not have a significant impact on any small entities affected. Moreover, due to the nature of the Federal-State relationship under the Act, preparation of the regulatory flexibility analysis would constitute Federal inquiry into the economic reasonableness of the State action. The Act forbids EPA to base its actions concerning state implementation plans on such grounds. *Union Electric Co. v. U.S.E.P.A.*, 427 U.S. 246, 256-66 (1976).

D. Unfunded Mandates

Under Sections 202, 203, and 205 of the Unfunded Mandates Reform Act of 1995 (Unfunded Mandates Act), signed into law on March 22, 1995, EPA must assess whether various actions undertaken in association with proposed or final regulations include a Federal mandate that may result in estimated costs of \$100 million or more to the private sector, or to State, local, or tribal governments in the aggregate.

EPA's final action will relieve requirements otherwise imposed under the Clean Air Act and, hence does not impose any federal intergovernmental mandate, as defined in section 101 of the Unfunded Mandates Act. This action also will not impose a 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.

E. Petitions for Judicial Review

Under section 307(b)(1) of the Act, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by March 26, 1996. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this rule for the purpose 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) of the Act.

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Oxides of nitrogen, Incorporation by reference, Intergovernmental relations, Ozone.

Dated: January 18, 1996.

Carol M. Browner,
Administrator.

Part 52, chapter I, title 40 of the Code of Federal Regulations is amended as follows:

PART 52—[AMENDED]

1. The authority citation for part 52 continues to read as follows:

Authority: 42 U.S.C. 7401-7671(q).

Subpart O—Illinois

2. Section 52.726 is amended by adding paragraph (k) to read as follows:

§ 52.726 Control Strategy: Ozone

* * * * *

(k) Approval—EPA is approving the section 182(f) oxides of nitrogen (NO_x) reasonably available control technology (RACT), new source review (NSR), vehicle inspection/maintenance (I/M), and general conformity exemptions for the Illinois portion of the Chicago-Gary-Lake County severe ozone nonattainment area as requested by the States of Illinois, Indiana, Michigan, and Wisconsin in a July 13, 1994 submittal. This approval does not cover the exemption of NO_x transportation conformity requirements of section 176(c) for this area. Approval of these exemptions is contingent on the results of the final ozone attainment demonstration expected to be submitted in mid-1997. The approval will be modified if the final attainment demonstration demonstrates that NO_x emission controls are needed in the nonattainment area to attain the ozone standard in the Lake Michigan Ozone Study modeling domain.

Subpart P—Indiana

2. Section 52.777 is amended by adding paragraph (i) to read as follows:

§ 52.777 Control Strategy: Photochemical oxidants (hydrocarbons).

* * * * *

(i) Approval—EPA is approving the section 182(f) oxides of nitrogen (NO_x) reasonably available control technology (RACT), new source review (NSR), vehicle inspection/maintenance (I/M), and general conformity exemptions for the Indiana portion of the Chicago-Gary-Lake County severe ozone nonattainment area as requested by the States of Illinois, Indiana, Michigan, and Wisconsin in a July 13, 1994 submittal. This approval does not cover the exemption of NO_x transportation conformity requirements of section 176(c) for this area. Approval of these exemptions is contingent on the results

of the final ozone attainment demonstration expected to be submitted in mid-1997. The approval will be modified if the final attainment demonstration demonstrates that NO_x emission controls are needed in the nonattainment area to attain the ozone standard in the Lake Michigan Ozone Study modeling domain.

* * * * *

Subpart X—Michigan

2. Section 52.1174 is amended by adding paragraph (l) to read as follows:

§ 52.1174 Control Strategy: Ozone

* * * * *

(l) Approval—EPA is approving the section 182(f) oxides of nitrogen (NO_x) reasonably available control technology (RACT), new source review (NSR), vehicle inspection/maintenance (I/M), and general conformity exemptions for the Grand Rapids (Kent and Ottawa Counties) and Muskegon (Muskegon County) moderate nonattainment areas as requested by the States of Illinois, Indiana, Michigan, and Wisconsin in a July 13, 1994 submittal. This approval also covers the exemption of NO_x transportation and general conformity requirements of section 176(c) for the Counties of Allegan, Barry, Bay, Berrien, Branch, Calhoun, Cass, Clinton, Eaton, Gratiot, Genesee, Hillsdale, Ingham, Ionia, Jackson, Kalamazoo, Lenawee, Midland, Montcalm, St. Joseph, Saginaw, Shiawassee, and Van Buren.

Subpart YY—Wisconsin

2. Section 52.2585 is amended by adding paragraph (i) to read as follows:

§ 52.2585 Control Strategy: Ozone.

* * * * *

(i) Approval—EPA is approving the section 182(f) oxides of nitrogen (NO_x) reasonably available control technology (RACT), new source review (NSR), vehicle inspection/maintenance (I/M), and general conformity exemptions for the moderate and above ozone nonattainment areas within Wisconsin as requested by the States of Illinois, Indiana, Michigan, and Wisconsin in a July 13, 1994 submittal. This approval also covers the exemption of transportation and general conformity requirements of section 176(c) for the Door and Walworth marginal ozone nonattainment areas. Approval of these exemptions is contingent on the results of the final ozone attainment demonstration expected to be submitted in mid-1997. The approval will be modified if the final attainment demonstration demonstrates that NO_x emission controls are needed in any of

the nonattainment areas to attain the ozone standard in the Lake Michigan Ozone Study modeling domain.

[FR Doc. 96-1413 Filed 1-25-96; 8:45 am]

BILLING CODE 6560-50-P

40 CFR Part 52

[LA-22-1-7184; FRL-5402-7]

Approval and Promulgation of Section 182(f) Exemption to the Nitrogen Oxides (NO_x) Control Requirements for the Baton Rouge Ozone Nonattainment Area; Louisiana

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: As requested by the State of Louisiana in a petition submitted to the EPA pursuant to section 182(f)(3) of the Clean Air Act (CAA), the EPA is granting an exemption from the Reasonably Available Control Technology (RACT) and New Source Review (NSR) requirements for major stationary sources of Oxides of Nitrogen (NO_x), from the vehicle Inspection/Maintenance (I/M) NO_x requirements, and general conformity NO_x requirements for the Baton Rouge, Louisiana serious ozone nonattainment area. The EPA is approving the exemption based on a demonstration that additional NO_x reductions would not contribute to attainment of the National Ambient Air Quality Standard (NAAQS) for ozone in the nonattainment area. The EPA is not taking final action at this time on the granting of an exemption from the transportation conformity requirements of the CAA for the Baton Rouge area. The EPA is reserving the right to reverse the approval of the exemption if subsequent modeling data demonstrate an ozone attainment benefit from NO_x emission controls.

EFFECTIVE DATE: This action is effective as of January 18, 1996.

ADDRESSES: Copies of the exemption request, public comments and EPA's responses are available for inspection at the following address:

United States Environmental Protection Agency, Region 6, Multimedia Planning and Permitting Division, 1445 Ross Avenue, Suite 700, Dallas, Texas 75202-2733.

Louisiana Department of Environmental Quality, H.B. Garlock Building, 7290 Bluebonnet, Baton Rouge, Louisiana 70810.

FOR FURTHER INFORMATION CONTACT:

Ms. Jeanne McDaniels or Mr. Quang Nguyen, Air Planning Section (6PD-L),

Multimedia Planning and Permitting Division, U.S. EPA Region 6, 1445 Ross Avenue, Dallas, Texas 75202-2733, telephone (214) 665-7214.

SUPPLEMENTAL INFORMATION:

I. Background

On November 17, 1994, the State of Louisiana submitted a petition to the EPA requesting that the Baton Rouge serious ozone nonattainment area be exempted from requirements to implement NO_x controls pursuant to section 182(f) of the CAA. The exemption request is based on modeling that demonstrates additional NO_x emission controls within the nonattainment area will not contribute to attainment of the ozone NAAQS within the area. The Baton Rouge ozone nonattainment area consists of the following parishes: East Baton Rouge, West Baton Rouge, Pointe Coupee, Livingston, Iberville, and Ascension. The State also provided supplemental technical reports pertaining to the modeling as part of the Baton Rouge post-1996 rate-of-progress plan submitted to the EPA on November 15, 1994. In addition, the State submitted several follow-up letters to the petition to: (1) revise a number of tables in the November 17, 1994, petition, and (2) broaden the scope of the original request to also include exemptions under section 182(f) for NO_x NSR, general conformity, and I/M NO_x requirements.

On August 18, 1995, the EPA published a rulemaking proposing approval of the NO_x exemption petition for the six-parish ozone nonattainment area (60 FR 43100). During the 30-day public comment period, the EPA received two letters commenting on the proposal. Both expressed opposition to the exemption. In addition to these comments, in August 1994 three environmental groups submitted joint adverse comments on the proposed approvals of NO_x exemptions for the Ohio and Michigan ozone nonattainment areas. The comments addressed the EPA's general policy regarding NO_x exemptions. The commenters requested that these comments be addressed in all EPA rulemakings dealing with section 182(f) exemptions.

II. Public Comments

The following discussion summarizes the comments received regarding the State's petition and/or the EPA's proposed rulemaking and presents the EPA's responses to these comments.

Comment: Commenters argued that NO_x exemptions are provided for in two separate parts of the CAA, in sections