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[4910-13]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Parts 36 and 91

[Docket No. FAA-2003-16526; Notice No. 03-12]

RIN 2120-AH99

Stage 4 Aircraft Noise Standards

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of Proposed Rulemaking (NPRM).

SUMMARY: The FAA is proposing a new noise standard for subsonic jet airplanes and subsonic transport category large airplanes. This noise standard would ensure that the latest available noise reduction technology is incorporated into new aircraft designs. This noise standard, Stage 4, would apply to any person submitting an application for a new airplane type design on and after January 1, 2006. The standard could be chosen voluntarily prior to that date. This noise standard is intended to provide uniform noise certification standards for Stage 4 airplanes certificated in the United States and those airplanes that meet the new International Civil Aviation Organization Annex 16 Chapter 4 noise standard.

DATE: Send your comments on or before [Insert date 90 days after date of publication in the Federal Register].

ADDRESSES: You may send comments [identified by Docket Number FAA-2003-16526] using any of the following methods:

- DOT Docket web site: Go to http://dms.dot.gov and follow the instructions for sending your comments electronically.

- Government-wide rulemaking web site: Go to http://www.regulations.gov and follow the instructions for sending your comments electronically.
- Mail: Docket Management Facility; US Department of Transportation, 400 Seventh Street, S.W., Nassif Building, Room PL-401, Washington, DC 20590-001.
- Fax: 1-202-493-2251.
- Hand Delivery: Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street, S.W., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For more information on the rulemaking process, see the SUPPLEMENTARY INFORMATION section of this document.

Privacy: We will post all comments we receive, without change, to http://dms.dot.gov, including any personal information you provide. For more information, see the Privacy Act discussion in the SUPPLEMENTARY INFORMATION section of this document.

Docket: To read background documents or comments received, go to http://dms.dot.gov at any time or to Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street, S.W., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: Laurette Fisher, Office of Environment and Energy (AEE-100), Federal Aviation Administration, 800 Independence Avenue, SW., Washington, DC 20591; telephone (202) 267-3561; facsimile (202) 267-5594.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites interested persons to participate in this rulemaking by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. We ask that you send us two copies of written comments.

We will file in the docket all comments we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. The docket is available for public inspection before and after the comment closing date. If you wish to review the docket in person, go to the address in the ADDRESSES section of this preamble between 9:00 a.m. and 5:00 p.m., Monday through Friday, except Federal holidays. You may also review the docket using the Internet at the web address in the ADDRESSES section.

Privacy Act: Using the search function of our docket web site, anyone can find and read the comments received into any of our dockets, including the name of the individual sending the comment (or signing the comment on behalf of an association, business, labor union, etc.). You may review DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000 (65 FR 19477-78) or you may visit http://dms.dot.gov.

Before acting on this proposal, we will consider all comments we receive on or before the closing date for comments. We will consider comments filed late if it is possible to do so without incurring expense or delay. We may change this proposal in light of the comments we receive.

If you want the FAA to acknowledge receipt of your comments on this proposal, include with your comments a pre-addressed, stamped postcard on which the docket number appears. We will stamp the date on the postcard and mail it to you.

Availability of Rulemaking Documents

You can get an electronic copy using the Internet by:

(1) Searching the Department of Transportation's electronic Docket Management System (DMS) web page (http://dms.dot.gov/search);

(2) Visiting the Office of Rulemaking's web page at http://www.faa.gov/avr/arm/index.cfm; or

(3) Accessing the Government Printing Office's web page at http://www.access.gpo.gov/su_docs/aces/aces140.html.

You can also get a copy by submitting a request to the Federal Aviation Administration, Office of Rulemaking, ARM-1, 800 Independence Avenue S.W, Washington, DC 20591, or by calling (202) 267-9680. Make sure to identify the docket number, notice number, or amendment number of this rulemaking.

Background

Brief history of U.S. noise regulations:

In 1969, the FAA promulgated the first aircraft noise regulations in Title 14, Code of Federal Regulations (14 CFR) part 36, "Noise Standards: Aircraft Type Certification." The new part 36 became effective on December 1, 1969, and set a limit on noise emissions of large aircraft of new design by establishing Stage 2 certification standards. In 1972, the Congress passed the Noise Control Act, which amended the Federal Aviation Act of 1958, giving the FAA

authority to set limits for aircraft noise emissions. This authority was implemented by a 1973 amendment to part 36 that gave a noise stage designation to all newly produced airplanes.

In 1977, the FAA amended part 36 to provide for three stages of aircraft noise levels, each with specified limits. This regulation required applicants for new type certificates applied for on or after November 5, 1975, to comply with "Stage 3" noise limits, which were stricter than the noise limits then being applied. Airplanes in operation at the time that did not meet the Stage 3 noise limits were designated "Stage 2" airplanes.

In 1976, the FAA amended the aircraft operating rules of 14 CFR part 91 by adding a new Subpart E entitled "Operating Noise Limits." The regulation established a phased compliance program for U.S. domestic operators that required them to achieve compliance with Stage 2 or Stage 3 certification standards for all four-engine jet airplanes by January 1, 1985.

In 1980, Congress enacted the Aviation Safety and Noise Abatement Act of 1979 (ASNA). The ASNA required the FAA to promulgate regulations that extended the application of the January 1, 1985, cut-off date for four-engine jet Stage 1 airplanes to apply to both the U.S. and foreign operators. The FAA amended part 91 in 1980 to apply the 1985 operation deadline to all operators. Subpart E was recodified as Subpart I of part 91 in August 1989.

Recognizing the need to both expand airport capacity and provide relief from aviation noise, Congress passed the Airport Noise and Capacity Act of 1990 (ANCA) on November 5, 1990 (now codified at 49 USC 47521-47533). The regulations implementing the part of ANCA known as the Stage 3 transition rule were effective on September 25, 1991, and are codified at part 91, Subpart I, Operating Noise Limits. The regulations provided two options to meet the schedule for the transition to 100 percent Stage 3 operations in the contiguous United States by

December 31, 1999. One option allowed an operator to meet the compliance schedule by phasing out Stage 2 airplanes. Under this option, an operator could operate no more than 75 percent of its Stage 2 base level after December 31, 1994, 50 percent after December 31, 1996, and 25 percent after December 31, 1998. The second option allowed an operator to meet the compliance schedule by attaining a fleet composition of not less than 55 percent Stage 3 airplanes after December 31, 1994, 65 percent after December 31, 1996, and 75 percent after December 31, 1998. New entrant operators (those that did not conduct operations on or before November 5, 1990) had to operate a fleet composed of at least 25 percent Stage 3 airplanes after December 31, 1994, 50 percent after December 31, 1996, and 75 percent after December 31, 1998. All operators were required to operate 100 percent Stage 3 fleets after December 31, 1999. In October 1991, Public Law 102-143 added a separate Stage 2 restriction for operations in Hawaii.

The FAA is now proposing to establish a new quieter noise standard to be known as Stage 4. This new noise standard would apply to any person filing an application for a new airplane type design on and after January 1, 2006. However, the adoption of a new noise standard for new aircraft designs is not intended to signal the start of any rulemaking or other proceeding aimed at phasing out the production or operation of current aircraft models. Currently, the FAA has no operational restrictions on Stage 3 airplanes, and the FAA has no plan to impose such restrictions.

Moreover, in the event that there is a decision at some future date to begin a transition from one noise standard to another, history has shown that phasing out the production of noisier airplanes, and eventually phasing out their operation, is a long process. As an example, the FAA

established the Stage 3 noise standard in 1975, but it was not until the end of 1999 that the contiguous United States had an all Stage 3 fleet in operation. Stage 2 airplanes were last produced in 1988, but their operation was permitted for another 12 years. From the time the Stage 3 noise standard was adopted in 1975 until the contiguous United States had an all Stage 3 operational fleet, approximately 25 years had elapsed. As noted above, however, the FAA has no current plan to begin a phaseout of Stage 3 airplanes.

Development of ICAO Chapter 4 noise standard:

Much of the background for the development of a Stage 4 noise standard has taken place in the international arena and the work of International Civil Aviation Organization (ICAO).

The environmental activities of the ICAO are largely undertaken through the Committee on Aviation Environmental Protection (CAEP), which was established by the ICAO in 1983, and which superseded the Committee on Aircraft Noise and the Committee on Aircraft Engine Emissions. The CAEP assists the ICAO in formulating new policies and adopting new standards on aircraft noise and aircraft engine emissions. The United States is an active member in the CAEP activities. There is at least one U.S. representative participating on each of the five working groups under CAEP.

In 1998, the CAEP Working Group for Noise (WG1) was tasked to develop options to further reduce airplane noise levels. The Working Group met several times over the two years to accomplish the task. Representatives of Working Group 2 for Airports and Operations, and the Forecast Economic Analysis Support Group, participated in the WG1 meetings to acquaint themselves with noise stringency options and to help WG1 define noise data requirements.

The working group considered several new, more stringent noise certification options for analysis. They include a "traditional" option with specified reductions at each noise certification measurement point (flyover, lateral, and approach), and three "cumulative" options that combine the three traditional measurement points allowing a total cumulative reduction without specifying reductions at any one measurement point. The three cumulative options were 8, 11, and 14 decibel reductions from Chapter 3/Stage 3 levels respectively.

In reaching a recommendation for a new ICAO noise standard for subsonic jet and large transport airplanes, the CAEP considered estimates of comprehensive costs and benefits associated with the various noise stringency and phaseout options. The technical working group charged by the CAEP to conduct the costs and benefits analysis made several key assumptions. These assumptions together with the issues arising from some of these are set out below:

New Production Assumption. It was assumed that airlines would require all new production aircraft to meet the new standard once it has been announced regardless of the application date. Within the ICAO working group, they used the term Non-Production for this assumption. The CAEP deliberations identified such possible commercial reasons as more stringent local noise restrictions, especially at some European airports, and the potential for future regional phaseout of noncompliant airplanes.

Recertification. The technical working group defines recertification as the certification of an in-service aircraft to comply with a more stringent noise certification standard. Recertification potentially includes options such as re-analysis of existing noise certification and performance databases, weight and/or flap limitations, and engine or airframe modifications. The cost or penalty incurred to recertify aircraft to the proposed new stringency levels is based on the

relationships between noise reduction, the capital investment required, and operating costs. Under the recertification case analyzed by CAEP, noncompliant aircraft are either replaced or modified to comply with the new noise standard. An estimate was made of the cost to modify the airframe and/or engine to comply with the new noise standard. Aircraft affected by a phaseout scheme were screened to identify candidates eligible for recertification. These aircraft were assumed to be recertified (modified) to remain in service until they reach their presumed retirement age.

Price of Improved Technology. Building upon the new-production assumption described above, increasing levels of noise certification stringency impose increasing development costs on manufacturers of airplanes and engines. As the level of stringency increases, more design compromises may be necessary to reduce certification noise levels at the expense of airplane weight, engine size and operating costs. New airplane types entering the fleet would be burdened by this cost in their development.

Impact on Asset Values. For the phaseout scenarios, the CAEP analysis assumed that the airlines operating in areas without phaseout requirements would benefit from availability of relatively lower-priced aircraft removed from the fleets of airlines operating in noise-restricted areas.

A CAEP Steering Group met in September 2000 to review the results of the analysis prepared by WG1 to further reduce airplane noise levels and to formulate specific recommendations on the new standard and on transition options that were to be forwarded to the full CAEP.

The FAA stresses that this economic information is presented as background material for how ICAO made its decision on the Chapter 4 standard. It does not affect the domestic regulatory impact of this proposed rule. That impact is analyzed later in this document.

In January 2001, the CAEP approved an approach to noise mitigation that includes the reduction of noise at its source (the aircraft), improved land use planning around airports, and a wider use of aircraft operating procedures and restrictions that abate noise. To reduce noise at its source, the CAEP adopted a standard that is ten decibels lower, on a cumulative margin basis, than the current standard of Chapter 3 in ICAO Annex 16. This adopted standard was derived from one of the WG1's recommendations. The United States participated with other countries in the CAEP effort to develop this quieter, more stringent aircraft noise standard.

On June 27, 2001, at its 163rd session, the ICAO unanimously approved the adoption of the new Chapter 4 noise standard in Annex 16. The new noise standard will apply to any application for new type designs submitted on or after January 1, 2006, for countries that use Annex 16 as its noise certification basis.

The text of Annex 16 describing the maximum noise levels for the new Chapter 4 noise limit is as follows:

- The maximum permitted noise levels are defined in Chapter 3 of Annex 16; and may not be exceeded at any of the measurement points; and
- The sum of the differences at all three measurement points between the maximum noise levels and the maximum permitted noise levels (the Stage 4 limit) specified in Chapter 3 of Annex 16 may not be less than 10 EPNdB; and

- The sum of the differences at any two measurement points between the maximum noise levels and the corresponding maximum permitted noise levels specified in Chapter 3 of Annex 16 may not be less than 2 EPNdB.

In accepting Chapter 4 standards, the FAA interprets the Chapter 4 requirements of Annex 16 as follows:

(1) None of an airplane's maximum noise levels (flyover, lateral, and approach) may be greater than the maximum permitted noise levels for Chapter 3 airplanes, as defined in Annex 16; and

(2) To determine Stage 4 compliance, an airplane's maximum flyover, lateral and approach noise levels are each subtracted from the maximum permitted noise levels. The differences obtained are the noise limit margins, to be used as follows:

(a) When the three margins are added together, the total must be 10 EPNdB or greater; and

(b) When any two of the margins are added together, the sum must be 2 EPNdB or greater.

Overview of the Proposed Rule:

The FAA is proposing to amend parts 36 and 91 to add a new noise standard for Stage 4 subsonic jet airplanes and subsonic transport category large airplanes. The proposed amendment would include the following changes. The FAA would be adding "Stage 4 noise level", "Stage 4 airplane", and "Chapter 4 noise level" definitions to parts 36 and 91. In the acoustical change section of part 36, the requirements for Stage 4 airplanes would be added. Part 36 would also have a new section on Chapter 4 equivalency to Stage 4 that would require operators to have a Chapter 4

equivalency statement on board each Stage 4 airplane. Changes to Appendices A and B to part 36 would include an acceptable equivalent alternative for noise measurement and evaluation for Stage 4 airplanes. In part 91, the operating rules would be amended to allow the operation of Stage 4 airplanes where Stage 3 airplanes are now required. No operating limitations are being proposed.

Section-by-Section Discussion of the Proposal

The FAA is proposing to establish a new Stage 4 noise standard in part 36 for subsonic jet airplanes and subsonic transport category large airplanes. This new noise standard would ensure that the latest available noise reduction technology would be incorporated into new aircraft designs. The new Stage 4 noise standard has been written to mirror the ICAO Annex 16 Chapter 4 noise standard. The following is a section-by-section discussion of the proposed changes to part 36 and its appendices, and the associated operating rules in part 91.

Stage 4 noise certification:

Section 36.1

The FAA is proposing to add the following three terms to § 36.1(f): "Stage 4 noise level," "Stage 4 airplane," and "Chapter 4 noise level", to be designated as paragraphs (f)(9), (f)(10), and (f)(11) respectively. These new terms, used in the proposed noise standard, would be added to the list of definitions currently listed in § 36.1(f) to include Stage 4 airplanes in the applicability section of part 36.

Section 36.6

The FAA is proposing to add new paragraphs (c) and (d) to § 36.6 to incorporate by reference ICAO Annex 16, Volume 1, Aircraft Noise, Third Edition, July 1993, Amendment 7.

This change would add the ICAO document that includes requirements for noise measurement and evaluation and the maximum noise level to the list of acceptable alternative.

Section 36.7

The FAA is proposing to amend § 36.7 to allow for the addition of the Stage 4 designation. Section 36.7(e) would be amended to include airplanes that were not originally certificated as Stage 4, but become Stage 4 after a change in type design. A new paragraph (f) to § 36.7 would describe the acoustical change approval process for airplanes originally certificated to Stage 4.

Section 36.103

The FAA is proposing to amend § 36.103(b) to establish the cutoff date for new Stage 3 certification, and add a new paragraph (c) to establish the date after which all new certification must be to Stage 4. Paragraph (c) would also designate the type certification requirements of part 36 necessary to comply with Stage 4.

Section 36.105

The FAA is proposing to add new § 36.105 entitled "Chapter 4 equivalency". The purpose of this section is to codify findings of equivalency for airplanes certificated under part 36 as Stage 4 and those certificated under ICAO Chapter 4. In addition, all airplanes certificated as Stage 4 would be required to have a specified equivalency statement included in the airplane flight manual (AFM). These two items are intended to facilitate the operation of Stage 4 airplanes in locations where Chapter 4 is the recognized standard by establishing equivalency of compliance at certification. The FAA intends these provisions to help eliminate the number of questions that have arisen with Stage 3 and Chapter 3 airplanes.

Appendix A to Part 36

This appendix prescribes the conditions under which airplane noise certification tests must be conducted and describes the measurement procedures that must be used in the measurement of airplane noise during certification testing. The FAA is proposing to add a new paragraph to Appendix A, § A36.1.4, that specifies an acceptable alternative for noise measurement and evaluation for Stage 4 airplanes. This alternative for Stage 4 noise measurement and evaluation is Appendix 2 to ICAO Annex 16, Environmental Protection, Volume I, Aircraft Noise, Third Edition, July 1993, Amendment 7 that was effective March 21, 2002.

In 2002, the FAA amended its noise certification standards for subsonic jet airplanes and subsonic transport category large airplanes (67 FR 45194, July 8, 2002). The changes were based on the joint effort of the FAA, the European Joint Aviation Authorities (JAA), and Aviation Rulemaking Advisory Committee to harmonize the U.S. noise certification regulations and the European Joint Aviation Requirements for subsonic jet airplanes and subsonic transport category large airplanes. These changes provided a nearly uniform noise certification standard for airplanes certified in the United States and in the JAA countries. There were two exceptions in conducting noise tests that remain unharmonized.

The FAA anticipates that when CAEP meets again in 2004, these two exceptions will have been resolved and will not affect this rulemaking. The exception for sound pressure level, part 36, Appendix A, § A36.9.3.2.1, has been resolved at the working group level as of October 2002. The exception for wind velocity, part 36, Appendix A, § A36.2.2.2(e), is currently being

discussed in this working group. This proposed rule presumes that these two exceptions will no longer be at issue by the time the FAA publishes a final rule on Stage 4 certification.

Appendix B to Part 36

Part 36, appendix B, contains the maximum noise levels for transport category and jet airplanes, and the noise certification reference procedures and conditions. To comply with appendix B, an applicant must show that noise levels were measured and evaluated using the procedures of appendix A of this part, or an approved equivalent procedure. The FAA is proposing to amend §B36.1 to include an acceptable alternative for Stage 4 noise measurement and evaluation. The proposed alternative is Annex 16 Appendix 2. Section B36.5 would also be revised to include the maximum noise levels for Stage 4 airplanes.

Stage 4 operation:

Section 91.851

Section 91.851 contains definitions that apply to §§ 91.851 through 91.877, the Stage 3 operating rules for airplanes over 75,000 pounds. The FAA is proposing to add these new terms to § 91.851: "Stage 4 noise level," "Stage 4 airplane," and "Chapter 4 noise level." The addition of these terms in the definition section coincides with their incorporation into the following operating rules.

Section 91.853

This section requires that after December 31, 1999, all airplanes over 75,000 pounds must be Stage 3. The FAA is proposing to add the phrase "or Stage 4" after the phrase "Stage 3" to include Stage 4 airplanes as acceptable to operate to or from any airport in the contiguous United States.

Section 91.855

This section prescribes the requirements for the operation of airplanes over 75,000 pounds in the contiguous United States on and since September 25, 1991. The FAA is proposing to add the phrase "or Stage 4" after the phrase "Stage 3" to include Stage 4 airplanes as acceptable to operate to or from any airport in the contiguous United States.

Section 91.859

This section allows an operator that is otherwise prohibited from operating to or from an airport in the contiguous United States, to apply for a special flight authorization for the purpose of obtaining modifications to meet Stage 3 noise levels. The FAA is proposing to add the phrase "or Stage 4" in the title and the text to include airplane modifications to meet Stage 4.

Paperwork Reduction Act

The Paperwork Reduction Act of 1995 (44 U.S.C. 3507(d)) requires that the FAA consider the impact of paperwork and other information collection burdens imposed on the Public. We have determined that there is no new information collection associated with this proposed rule.

Economic Evaluation

Proposed changes to Federal regulations must undergo several economic analyses. First, Executive Order 12866 directs each Federal agency proposing or adopting a regulation to proceed only upon a reasoned determination that the benefits of the intended regulation justify its costs. Second, the Regulatory Flexibility Act of 1980 requires agencies to analyze the economic impact of regulatory changes on small entities. Third, the Trade Agreements Act (19 U.S.C. §§ 2531-2533) prohibits agencies from setting standards that create unnecessary obstacles to the

foreign commerce of the United States. In developing U.S. standards, this Trade Act requires agencies to consider international standards and, where appropriate, that they be the basis of U.S. standards. Fourth, the Unfunded Mandates Reform Act of 1995 (Public Law 104-4) requires agencies to prepare a written assessment of the costs, benefits, and other effects of proposed or final rules that include a Federal mandate likely to result in the expenditure by State, local, or tribal governments, in the aggregate, or by the private sector, of $100 million or more annually (adjusted for inflation).

However, for regulations with an expected minimal impact, the above-specified analyses are not required. The Department of Transportation Order DOT 2100.5 prescribes policies and procedures for simplification, analysis, and review of regulations. If it is determined that the expected impact is so minimal that the proposal does not warrant a full evaluation, a statement to that effect and the basis for it is included in the proposed regulation.

This proposed rule would establish a new Stage 4 noise standard for subsonic jet airplanes and subsonic transport category large airplanes. The proposed noise standard would apply to new type designs for which application is made on or after January 1, 2006.

The proposed noise standard would provide noise certification standards for Stage 4 airplanes certificated in the United States that would be consistent with those for airplanes certificated under the International Civil Aviation Organization Annex 16 Chapter 4 noise standards, and would ensure that the best available, economically reasonable, and technologically practicable noise reduction technologies would be incorporated into the aircraft design.

The proposed rule was developed by assessing the feasibility and availability of the best noise abatement technologies for jet and propeller-driven large airplanes. The stringency

alternatives were judged against the database of current and project airplanes that incorporate these technologies. The proposed rule is a representation of current industry practice and of projected technologies. All but four currently produced aircraft types meet the proposed Stage 4 standards. The FAA found that under current industry practice three of the four currently produced airplane types have configurations that do not meet the proposed Stage 4 noise standard. However, these airplanes have one or more configurations that meet Stage 4. The remaining airplane type for which no Stage 4 configuration exists, was type certified in 1981 and can still operate under this rule.

In 2006, when the proposed rule would become effective, all new type design subsonic jet airplanes and subsonic transport category large airplanes will be able to meet the Stage 4 noise standard by using the current available noise reduction technologies. Therefore, the proposed rule would have minimal, if any, cost. However, in order to meet the proposed Stage 4 standard, weight and engine constraints could be imposed on certain aircraft configurations. The FAA specifically requests comments from entities that could be negatively affected as a result of any weight and engine constraint and requests that all comments be accompanied by clear documentation.

Initial Regulatory Flexibility Determination

The Regulatory Flexibility Act of 1980 (RFA) establishes "as a principle of regulatory issuance that agencies shall endeavor, consistent with the objective of the rule and of applicable statutes, to fit regulatory and informational requirements to the scale of the business, organizations, and governmental jurisdictions subject to regulation." To achieve that principle, the RFA requires agencies to solicit and consider flexible regulatory proposals and to explain the

rationale for their actions. The Act covers a wide range of small entities, including small businesses, not-for-profit organizations and small governmental jurisdictions.

Agencies must perform a review to determine whether a proposed or final rule will have a significant economic impact on a substantial number of small entities. If the determination is that it will, the agency must prepare a regulatory flexibility analysis as described in the Act.

However, if an agency determines that a proposed or final rule is not expected to have a significant economic impact on a substantial number of small entities, section 605(b) of the 1980 RFA provides that the head of the agency may so certify and a regulatory flexibility analysis is not required. The certification must include a statement providing the factual basis for this determination, and the reasoning should be clear.

In view of the minimal cost impact of the proposed rule, the FAA has determined that this proposed rule would not have a significant economic impact on a substantial number of small entities. Accordingly, the FAA certifies that this proposal would not have a significant economic impact on a substantial number of small entities. The FAA invites industry comments on this determination and requests that all comments be accompanied with clear and detailed supporting data.

International Trade Impact Analysis

The Trade Agreement Act of 1979 prohibits Federal agencies from establishing any standards or engaging in related activities that create unnecessary obstacles to the foreign commerce of the United States. Legitimate domestic objectives, such as safety, are not considered unnecessary obstacles. The statute also requires consideration of international

standards and, where appropriate, that they be the basis for U.S. standards. The FAA has assessed the potential effect of this proposed rule and determined that it would accept ICAO standards as the basis for United States regulation.

Unfunded Mandates Reform Act

The Unfunded Mandates Reform Act of 1995 (the Act) is intended, among other things, to curb the practice of imposing unfunded Federal mandates on State, local, and tribal governments. Title II of the Act requires each Federal agency to prepare a written statement assessing the effects of any Federal mandate in a proposed or final agency rule that may result in an expenditure of $100 million or more (adjusted annually for inflation) in any one year by State, local, and tribal governments, in the aggregate, or by the private sector; such a mandate is deemed to be a "significant regulatory action."

This proposed rule does not contain such a mandate. Therefore, the requirements of Title II of the Unfunded Mandates Reform Act of 1995 do not apply.

Environmental Analysis

In accordance with the provisions of regulations issued by the Council on Environmental Quality (40 CFR Parts 1500-1508), FAA Order 1050.1D identifies certain FAA actions that may be categorically excluded from the preparation of an Environmental Assessment or an Environmental Impact Statement. Pursuant to FAA Order 1050.1D, appendix 4, paragraph 4(j), this rulemaking action qualifies for a categorical exclusion because no significant impacts to the environment are expected to result from its finalization or implementation and no extraordinary circumstances exist as prescribed under paragraph 32 of Order 1050.1D.

Regulations that Significantly Affect Energy Supply, Distribution, or Use

The FAA has analyzed this NPRM under Executive Order 13211, Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use (May 18, 2001). We have determined that it is not a "significant energy action" under the executive order because it is not a "significant regulatory action" under Executive Order 12866, and it is not likely to have a significant adverse effect on the supply, distribution, or use of energy.

List of Subjects in 14 CFR parts 36 and 91

Aircraft, Noise control, Reporting and record keeping requirements.

The Proposed Amendments

In consideration of the foregoing the FAA proposes to amend parts 36 and 91 of Title 14 Code of Federal Regulations, as follows:

PART 36--NOISE STANDARDS: AIRCRAFT TYPE AND AIRWORTHINESS CERTIFICATION

1. The authority citation for part 36 continues to read as follows:

Authority: 42 U.S.C. 4321 et seq.; 49 U.S.C. 106(g), 40113, 44701-44702, 44704, 44715; sec. 305, Pub. L. 96-193, 94 Stat. 50, 57; E.O. 11514, 35 FR 4247, 3 CFR, 1966-1970 Comp., p. 902.

2. Section 36.1(f) is amended by revising and adding new paragraphs f(9), f(10), and f(11) to read as follows:

§ 36.1 Applicability and definitions.

* * * * *

(f)

* * *

(9) A "Stage 4 noise level" means a noise level at or below the Stage 4 noise limit prescribed in section B36.5(d) of appendix B of this part.

(10) A "Stage 4 airplane" means an airplane that has been shown under this part not to exceed the Stage 4 noise limit prescribed in section B36.5(d) of appendix B of this part.

(11) A "Chapter 4 noise level" means a noise level at or below the Chapter 4 maximum noise level prescribed in Chapter 4 of the International Civil Aviation Organization (ICAO) Annex 16, Volume I, Amendment 7, dated March 21, 2002.

* * *

3. Section 36.6 is revised by adding paragraphs (c)(3) and (d)(3) to read as follows:

§ 36.6 Incorporation by reference.

* * * * *

(c) * * *

(3) International Standards and Recommended Practices entitled "Environmental Protection, Annex 16 to the Convention on International Civil Aviation, Volume I, Aircraft Noise", Third Edition, July 1993, Amendment 7, effective March 21, 2002.

(d) * * *

(3) <u>ICAO publications</u>. International Civil Aviation Organization (ICAO), Document Sales Unit, 999 University Street, Montreal, Quebec H3C 5H7, Canada.

* * * * *

4. Section 36.7 is revised by adding paragraphs (e)(4) and (f) to read as follows:

§ 36.7 Acoustical change: Transport category large airplanes and jet airplanes.

* * * * *

(e) * * *

(4) If an airplane is a Stage 3 airplane prior to a change in type design, and becomes a Stage 4 after the change in type design, the airplane must remain a Stage 4 airplane.

(f) Stage 4 airplanes. If an airplane is a Stage 4 airplane prior to a change in type design, the airplane must remain a Stage 4 airplane after the change in type design.

5. Section 36.103 is amended by revising paragraph (b) and adding a new paragraph (c) to read as follows:

§ 36.103 Noise limits.

* * * * *

(b) Type certification applications between November 5, 1975 and December 31, 2005. If application is made on or after November 5, 1975, and before January 1, 2006, it must be shown that the noise levels of the airplane are no greater than the Stage 3 noise limit prescribed in section B36.5(c) of appendix B of this part.

(c) Type certification applications on or after January 1, 2006. If application is made on or after January 1, 2006, it must be shown that the noise levels of the airplane are no greater than the Stage 4 noise limit prescribed in section B36.5(d) of appendix B of this part. Prior to January 1, 2006, an applicant may seek voluntary certification to Stage 4 maximum noise level; if Stage 4 certification is chosen, the Stage 4 noise limit on changes in type design will apply.

6. Add new § 36.105 to read as follows:

§ 36.105 Chapter 4 equivalency.

(a) When the noise measurement and evaluation procedures of the International Civil Aviation Organization (ICAO), as described in Annex 16, Volume I, Chapter 4 are used to establish a Chapter 4 noise certification, the airplane is considered equivalent to Stage 4.

(b) For each airplane for which Stage 4 certification is sought, the Airplane Flight Manual or operations manual must include the following statement: "The following noise levels comply with part 36, Appendix B, Stage 4 maximum noise level requirements and were obtained by analysis of approved data from noise tests conducted under the provisions of part 36 Amendment [insert the appropriate part 36 amendment number]. The noise measurement and evaluation procedures used to obtain these noise levels have been found by the FAA to be equivalent to the Chapter 4 noise level required by the International Civil Aviation Organization (ICAO) in Annex 16, Volume I, Appendix 2, Amendment 7, effective March 21, 2002."

APPENDIX A [Amended]

7. Section A36.1 is revised by adding paragraph A36.1.4 to read as follows:

Section A36.1 Introduction.

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A36.1.4 For Stage 4 airplanes, an acceptable alternative for noise measurement and evaluation is Appendix 2 to the International Civil Aviation Organization (ICAO) Annex 16, Environmental Protection, Volume I, Aircraft Noise, Third Edition, July 1993, Amendment 7, March 21, 2002. The Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51 approved this incorporation by reference. This document can be obtained from the International Civil Aviation Organization (ICAO), Document Sales Unit, 999 University Street, Montreal, Quebec H3C 5H7, Canada. Also, you may obtain documents on the Internet at

www.ICAO.int/eshop/index.cfm. Copies may be reviewed at the FAA Office of the Chief Counsel, Rules Docket, Federal Aviation Administration Headquarters Building, 800 Independence Avenue, SW., Washington, DC or at the Office of Federal Register, 800 North Capitol Street, NW, Suite 700, Washington, DC.

APPENDIX B [Amended]

8. Section B36.1 is revised to read as follows:

Section B36.1 Noise Measurement and Evaluation

The procedures of Appendix A of this part, or approved equivalent procedures, must be used to determine noise levels of an airplane. These noise levels must be used to show compliance with the requirements of this appendix. For Stage 4 airplanes, an acceptable alternative for noise measurement and evaluation is Appendix 2 to the International Civil Aviation Organization (ICAO) Annex 16, Environmental Protection, Volume I, Aircraft Noise, Third Edition, July 1993, Amendment 7, March 21, 2002. The Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51 approved this incorporation by reference. This document can be obtained from, and copies may be reviewed at the respective addresses listed in § A36.1.

9. Section B36.5 is revised to read as follows:

Section B36.5 Maximum noise Levels

* * * * *

(d) For a Stage 4 airplane, the flyover, lateral, and approach maximum noise levels are prescribed in Chapter 4 of the International Civil Aviation Organization (ICAO) Annex 16, Environmental Protection, Volume I, Aircraft Noise, Third Edition, July 1993, Amendment 7, effective March 21, 2002.

PART 91--GENERAL OPERATING AND FLIGHT RULES

10. The authority citation for part 91 continues to read as follows:

Authority: 49 U.S.C. 106(g), 1155, 40103, 40113, 40120, 44101, 44111, 44701, 44709, 44711, 44712, 44715, 44716, 44717, 44722, 46306, 46315, 46316, 46504, 46506, 46507, 47122, 47508, 47528-47531, articles 12 and 29 of the Convention on International Civil Aviation (61 stat. 1180).

11. Section 91.851 is revised to read as follows:

§ 91.851 Definitions.

For the purposes of § 91.851 through 91.877 of this subpart:

Chapter 4 noise level means a noise level at or below the Chapter 4 maximum noise level prescribed in Chapter 4 of the International Civil Aviation Organization (ICAO) Annex 16, Volume I, Amendment 7, dated March 21, 2002. Airplanes certificated to Chapter 4 are considered equivalent to Stage 4, and comply with all operating rules of this part.

Contiguous United States means the area encompassed by the 48 contiguous United States and the District of Columbia.

Fleet means those civil subsonic jet (turbojet) airplanes with a maximum certificated weight of more than 75,000 pounds that are listed on an operator's operations specifications as eligible for operation in the contiguous United States.

Import means a change in ownership of an airplane from a non-U.S. person to a U.S. person when the airplane is brought into the United States for operation.

New entrant means an air carrier or foreign air carrier that, on or before November 5, 1990, did not conduct operations under part 121 or 129 of this chapter using an airplane covered by this subpart to or from any airport in the contiguous United States, but that initiates such operation after that date.

Operations specifications means an enumeration of airplanes by type, model, series, and serial number operated by the operator or foreign air carrier on a given day, regardless of how or whether such airplanes are formally listed or designated by the operator.

Owner means any person that has indicia of ownership sufficient to register the airplane in the United States pursuant to part 47 of this chapter.

Stage 2 airplane means a civil subsonic jet (turbojet) airplane with a maximum certificated weight of 75,000 pounds or more that complies with Stage 2 noise levels as defined in part 36 of this chapter.

Stage 2 noise levels mean the requirements for Stage 2 noise levels as defined in part 36 of this chapter in effect on November 5, 1990.

Stage 3 airplane means a civil subsonic jet (turbojet) airplane with a maximum certificated weight of 75,000 pounds or more that complies with Stage 3 noise levels as defined in part 36 of this chapter.

Stage 3 noise levels mean the requirements for Stage 3 noise levels as defined in part 36 of this chapter in effect on November 5, 1990.

Stage 4 airplane means an airplane that has been shown not be exceed the Stage 4 noise limit prescribed in part 36 of this chapter. A Stage 4 airplane complies with all the operating rules of this part.

Stage 4 noise level means a noise level at or below the Stage 4 noise limit prescribed in part 36 of this chapter.

12. Section 91.853 is revised to read as follows:

§ 91.853 Final compliance: Civil subsonic airplanes.

Except as provided in § 91.873, after December 31, 1999, no person shall operate to or from any airport in the contiguous United States any airplane subject to § 91.801(c) of this subpart, unless that airplane has been shown to comply with Stage 3 or Stage 4 noise levels.

13. Section 91.855(a) is revised to read as follows:

§ 91.855 Entry and nonaddition rule.

* * * * *

(a) The airplane complies with Stage 3 or Stage 4 noise levels.

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14. Section 91.859 is revised to read as follows:

§ 91.859 Modification to meet Stage 3 or Stage 4 noise levels.

For an airplane subject to § 91.801(c) of this subpart and otherwise prohibited from operation to or from an airport in the contiguous United States by § 91.855, any person may apply for a special flight authorization for that airplane to operate in the contiguous United States for the purpose of obtaining modifications to meet Stage 3 or Stage 4 noise levels.

Issued in Washington DC, on November 25, 2003

ORIGINAL SIGNED

Paul R. Dykeman
Deputy Director, Office of Environment and Energy