

U.S.C. 552b), notice is hereby given that the following matter will be added to the agenda for consideration at the open meeting of the Board of Directors of the Resolution Trust Corporation scheduled to follow the FDIC open meeting that begins at 2:00 p.m. on Tuesday, September 24, 1991, in the Board Room on the sixth floor of the FDIC Building

located at 550-17th Street, N.W., Washington, D.C.

Discussion Agenda

- A. Memorandum re: Operating Plan and Projected Funding Requirement for October 1, 1991 through September 30, 1992.

Requests for further information concerning the meeting may be directed

to John M. Buckley, Jr., Executive Secretary of the Corporation, at (202) 416-7282.

Dated: September 23, 1991.
Resolution Trust Corporation.

John M. Buckley, Jr.,
Executive Secretary.

[FR Doc. 91-23261 Filed 9-23-91; 3:18 pm]

BILLING CODE 6714-01-M

Corrections

Federal Register

Vol. 56, No. 186

Wednesday, September 25, 1991

This section of the FEDERAL REGISTER contains editorial corrections of previously published Presidential, Rule, Proposed Rule, and Notice documents. These corrections are prepared by the Office of the Federal Register. Agency prepared corrections are issued as signed documents and appear in the appropriate document categories elsewhere in the issue.

DEPARTMENT OF AGRICULTURE

Animal and Plant Health Inspection Service

7 CFR Part 301

[Docket No. 90-038]

Black Stem Rust

Correction

In proposed rule document 91-22169 beginning on page 46737, in the issue of Monday, September 16, 1991, make the following corrections:

1. On page 46738, in the first column, in the second paragraph, in the first line "international" should read "interstate".
2. On the same page, in the 2d column, in the 18th line insert "rust-resistant" following "grow".

BILLING CODE 1505-01-D

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket Nos. CP91-2981-000, et al.]

Panhandle Eastern Pipe Line Co., et al.; Natural Gas Certificate Filings

Correction

In notice document 91-22391 beginning on page 47193 in the issue of Wednesday, September 18, 1991, make the following corrections:

1. On page 47198, in the second column, under Filing number 11., in the docket numbers, "CP91-29997" should read "CP91-2997".
2. On page 47199, in the first column, in the file line at the end of the document, "FR Doc. 91-2391" should read "FR Doc. 91-22391".

BILLING CODE 1505-01-D

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. TM92-1-22-000]

CNG Transmission Corp. Proposed Changes in FERC Gas Tariff

Correction

In notice document 91-21881 appearing on page 46418, in the issue of Thursday, September 12, 1991, the docket number was omitted from the

heading and should appear as shown above.

BILLING CODE 1505-01-D

FEDERAL MARITIME COMMISSION

Security for the Protection of the Public Financial Responsibility to Meet Liability Incurred for Death or Injury to Passengers or Other Persons on Voyages; Issuance of Certificate (Casualty)

Correction

In notice document 91-14693 appearing on page 28398 in the issue of Thursday, June 20, 1991, in the first column, in the file line at the end of the document, "FR Doc 91-14692" should read "FR Doc 91-14693".

BILLING CODE 1505-01-D

SECURITIES AND EXCHANGE COMMISSION

[Rel. No. IC-18176; 812-7721]

Scottish Widows International Fund, et al.; Application

Correction

In notice document 91-13509 beginning on page 26451 in the issue of Friday, June 7, 1991, make the following correction:

On page 26453, in the first column, in the file line at the end of the document, "FR Doc. 91-15309" should read "FR Doc. 91-13509".

BILLING CODE 1505-01-D

Federal Register

Wednesday
September 25, 1991

Part II

Environmental Protection Agency

40 CFR Part 88

Air Programs; Credit Program for
California Pilot Test Program; Proposed
Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 88

[AMS-FRL 3997-5]

Air Programs; Credit Program for California Pilot Test Program

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: Provisions of the Clean Air Act enacted in 1990 require EPA to promulgate a clean-fuel vehicle program in the State of California. The program calls for the establishment of clean-fuel vehicle sales requirements, fuel availability requirements, state opt-in provisions, and, at the discretion of the Administrator, a credit program. This NPRM addresses only the credit program portion of the California Pilot Test Program. The credit program would assist vehicle manufacturers in meeting their clean-fuel vehicle sales requirement. Participation in the credit program by the vehicle manufacturers would be optional.

DATES: Comments on this proposal will be accepted until November 18, 1991.

EPA will conduct a public hearing on this Notice of Proposed Rulemaking on October 18, 1991, at 9 a.m.

Additional information on the public hearing and submission of comments can be found under "Public Participation" in the Supplementary Information section of today's notice.

ADDRESSES: Interested parties may submit written comments in response to this notice (in duplicate if possible) to Public Docket No. A-91-23, at: Air Docket Section, U.S. Environmental Protection Agency, Attention: Docket No. A-91-23, First Floor, Waterside Mall, room M-1500, 401 M Street SW., Washington, DC 20460.

The public hearing will be held at EPA's Motor Vehicle Emission Laboratory in Ann Arbor, Michigan.

Materials relevant to this notice have been placed in Docket No. A-91-23 by EPA. The docket is located at the above address and may be inspected between 8:30 a.m. and noon and 1:30 and 3:30 p.m. on weekdays. EPA may charge a reasonable fee for copying docket materials.

FOR FURTHER INFORMATION CONTACT:

Mr. Paul Machiele, U.S. EPA (SDSB-12), Emissions Control Technology Division, 2565 Plymouth Road, Ann Arbor, MI 48105, Telephone: (313) 668-4264.

SUPPLEMENTARY INFORMATION:

I. Introduction

A. California Pilot Test Program

The Clean Air Act Amendments of 1990 (Pub. L. 101-549) added part C to title II of the Clean Air Act entitled "Clean Fuel Vehicles." Under part C of title II, EPA is to establish two programs: A national clean-fueled fleets program in certain nonattainment areas and a clean-fuel pilot program in the State of California (the California Pilot Test Program, hereinafter referred to as the Pilot Program). The clean-fueled fleets program requires certain states to revise their state implementation plans to develop a program that requires a minimum percentage of new vehicles purchased by certain fleet owners to be clean-fuel vehicles. The Pilot Program places requirements on vehicle manufacturers with sales in the State of California to sell a minimum number of clean-fuel vehicles in that state. This NPRM concerns one aspect of the Pilot Program, the vehicle credit program for manufacturers.

The provisions for the Pilot Program are contained in section 249 of the Clean Air Act, as amended (CAA). Subsection (a) states that the purpose of the Pilot Program is "to demonstrate the effectiveness of clean-fuel vehicles in controlling air pollution in ozone nonattainment areas." Subsection (c)(1) mandates that clean-fuel vehicles are to be produced, distributed, and sold (in accordance with normal business practices and applicable franchise agreements) to ultimate purchasers in the State of California in numbers that meet or exceed 150,000 per year in model years 1996 through 1998, and 300,000 per year in model year 1999 and thereafter. Clean-fuel vehicles purchased by California fleet owners to comply with the clean-fueled fleets program are included as ultimate purchasers for the Pilot Program.

Furthermore, subsection (c)(2) requires the State of California to submit a revision to its State Implementation Plan (SIP) that will require "that clean alternative fuels on which the clean-fuel vehicles required under this paragraph can operate shall be produced and distributed by fuel suppliers and made available in the state of California." Subsection (f) goes on to require EPA to establish a voluntary opt-in program by which States other than California may revise their State Implementation Plans to provide incentives for the sale and use of clean-fuel vehicles and clean alternative fuels.

To assist vehicle manufacturers in meeting their respective shares of the vehicle sales requirements of the Pilot Program, section 249(d)(1) of the CAA

gives EPA discretionary authority to establish a credit program. That section provides that EPA "may (by regulation) grant a motor vehicle manufacturer an appropriate amount of credits toward fulfillment of such manufacturer's share" of the sales requirement for the sale of more clean-fuel vehicles than required and/or the sale of clean-fuel vehicles meeting more stringent emission standards. Manufacturer involvement in the credit program would be voluntary. As long as a manufacturer fulfills its sales requirement through its own clean-fuel vehicle sales, there would be no need for the manufacturer to participate in the credit program, unless it chooses to accumulate credits for future use or for trading with other manufacturers. If EPA decides to promulgate a credit program, it must be promulgated within one year of enactment of the Clean Air Act Amendments of 1990, i.e., November 15, 1991. EPA must administer the program and the vehicle emission credit standards and credit weighting requirements established by EPA for the clean-fueled fleets program must also apply to the Pilot Program.

The vehicles to be sold under the Pilot Program are those that are certified to the clean-fuel vehicle standards to be established pursuant to sections 242 and 243 of the CAA. Section 243 identifies the non-methane organic gas (NMOG), carbon monoxide (CO), nitrogen oxides (NOx), particulate matter (PM), and formaldehyde (HCHO) standards that are to apply to clean-fuel light-duty vehicles (LDVs) and light-duty trucks (LDTs). For LDTs under 6000 lbs gross vehicle weight rating (GVWR) and LDVs, there are two sets of standards, one for Phase I (through model year 2000) and another for Phase II (2001 and subsequent model years). For LDTs above 6000 lbs GVWR, there is one set of standards effective in model year 1998.

Section 242(b) states that clean-fuel vehicles must also meet all other requirements of title II that are applicable to conventional gasoline vehicles of the same category and model-year, except as provided in section 244, which provides that EPA administer and enforce the section 243 standards in the same manner as the State of California, and except to the extent that any such requirement is in conflict with the provisions of part C.

B. CARB's Low-Emission Vehicle and Clean Fuels Program

Many of the provisions of the Pilot Program described above mirror similar requirements established for the State of

California by the California Air Resources Board (CARB). (See documents in the Docket, entitled "Proposed Regulations for Low-Emission Vehicles and Clean Fuels: Staff Report", "Proposed Regulations for Low-Emission Vehicles and Clean Fuels: Technical Report", "Regulations for Low-Emission Vehicles", and "Regulations for Clean Fuels"). CARB's Low-Emission Vehicle program establishes a manufacturer fleet average NMOG exhaust emission requirements and percent of sales requirements for vehicle manufacturers which will result in the sale of a large number of clean-fuel vehicles annually. CARB's program also establishes four levels of clean-fuel vehicle emission standards (called vehicle emission categories), clean-fuel availability requirements, and a vehicle credit program.

CARB's Low-Emission Vehicle program begins in 1994. Clean-fuel vehicle sales are required through the establishment of decreasing fleet average NMOG exhaust emission requirements for manufacturers of vehicles under 6000 lbs GVWR and clean-fuel vehicle sales percentage requirements for manufacturers of trucks up to 14,000 lbs GVWR. The projected sales of clean-fuel vehicles in California resulting from these requirements will likely far exceed the Pilot Program requirements. Based on the projected sales of just LDVs and LDTs under 3750 loaded vehicle weight (LVW), clean-fuel vehicle sales under CARB's program are expected to reach almost 200 percent of the Pilot Program sales requirement in 1996 and 400 percent of the sales requirement in 1999. This sales projection assumes that all clean-fuel vehicles sold to meet CARB's program requirements also meet the federal clean-fuel vehicle requirements contained in the CAA Amendments. If they do not, only the sale of clean-fuel vehicles that meet the federal clean-fuel vehicle requirements will count toward the Pilot Program minimum requirements.

To help facilitate the development of clean-fuel vehicles and reduce the cost to the manufacturers to comply with the requirements of the Low-Emission Vehicle program, CARB has established a vehicle emission credit program. Credits are granted to vehicle manufacturers for the sale of more clean-fuel vehicles than are required and for the sale of clean-fuel vehicles meeting lower emission standards. Credits generated may then be averaged with other vehicle classes (subject to certain limitations), traded to other manufacturers, or banked for future use.

Additional details on CARB's credit program are contained in the next section, as well as referenced in the docket.

To the extent clean-fuel vehicles are sold in California which are capable of operating on alternative fuels, CARB has established requirements to make such fuels available for sale. These fuel availability requirements are triggered if at least 20,000 clean-fuel vehicles which can operate on a given fuel are sold. The number of service stations which must make the fuel available for sale is determined as a function of the vehicle manufacturers' projected clean-fuel vehicle sales, with certain minimum requirements (e.g., 90 service stations in the first year).

The exhaust emission standards CARB has established are essentially the same as those required for clean-fuel vehicles under the CAA. CARB has established NMOG, CO, NO_x, PM, and formaldehyde exhaust emission standards for its least stringent vehicle emission category, called Transitional Low-Emission Vehicles (TLEVs), which are identical to those required for clean-fuel vehicles under Phase I (through model-year 2000) of the federal program for LDVs and LDTs under 6000 lbs GVWR. Similarly, CARB's exhaust emission standards for its next more stringent vehicle emission category, called Low-Emission Vehicles (LEVs), are identical to those required for clean-fuel vehicles under Phase II of the Pilot Program. For clean-fuel vehicles from 6000 to 8500 lbs GVWR, CARB's exhaust emission standards for its LEV emission category are identical to those required for the Pilot Program (there is no TLEV category for trucks over 6000 lbs). CARB goes further than the CAA requirements, however, by establishing two additional, more stringent vehicle emission categories for all clean-fuel vehicle classes: Ultra-Low-Emission Vehicles (ULEVs) and Zero-Emission Vehicles (ZEVs).

C. Content of NPRM

The language of the CAA indicates that the Pilot Program has been modelled in large part after the provisions of CARB's Low-Emission Vehicle program. The clean-fuel vehicle standards, fuel availability language, and credit program are all examples of this.

As a result of the many similarities between the Pilot Program and CARB's Low-Emission Vehicle program, and the likelihood that CARB's program will result in more clean-fuel vehicles being sold than are required under the Pilot Program, the Pilot Program is unlikely to have a significant environmental impact

in California. Thus, EPA intends to fulfill its requirements under the Pilot Program in a manner which will minimize any additional economic burden on vehicle manufacturers or adverse impacts on other entities. To accomplish this, EPA intends to formulate the Pilot Program requirements as similar as possible, given the statutory limitations, to the provisions established by CARB. EPA believes this approach is consistent with the intent of the CAA's Pilot Program.

As noted earlier, this NPRM concerns only the proposed credit program as authorized in section 249(d) of the CAA. If EPA chooses to exercise its authority to establish a vehicle credit program, it must promulgate regulations establishing such a credit program by November 15, 1991 (section 249(d)(2) of CAA). Regulations concerning other aspects of the Pilot Program, including sales requirements, clean-fuel vehicle exhaust emission standards (NMOG, CO, NO_x, PM, and HCHO), and other requirements applicable to clean-fuel vehicles, are not required to be promulgated until two years after the enactment of the Clean Air Act Amendments of 1990, i.e., November 15, 1992 (sections 242(a), 249(c), and 249(f) of the CAA). Consequently, these aspects of the Pilot Program will be addressed in a subsequent rulemaking.

The following sections of this NPRM will discuss only the provisions of the Pilot Program that relate to the promulgation of a credit program. For purposes of comparison, CARB's Low-Emission Vehicle credit program is described in more detail. Areas where the credit program for the Pilot Program must differ from that of CARB's credit program are then examined. Following a description of the proposed credit program, its environmental, economic, and energy impacts are discussed. The remaining sections cover public participation, EPA's statutory authority for the rule, administrative designation of the rule, compliance with the Regulatory Flexibility Act, and reporting and recordkeeping requirements.

II. Credit Program

A. Need for a Credit Program

Section 249(d)(1) of the CAA provides EPA with discretionary authority to establish a vehicle credits program. As discussed in the introduction, the vehicles covered in the Pilot Program may be a subset of the vehicles required under CARB's Low-Emission Vehicle program. Assuming this, the magnitude of CARB's program, including its credit program, is such that manufacturers should easily meet the requirements of

the Pilot Program if the federal credit program offers the same or similar flexibilities to the manufacturers as CARB's program. Therefore, a credit program for the Pilot Program should provide no economic benefits beyond those resulting from CARB's program and result in little additional burden even if the two programs are administered separately.

Failure by EPA to promulgate a credits program, however, would eliminate the flexibility afforded by CARB's credit program. The loss of flexibility could significantly increase costs to a manufacturer in complying with both the Pilot Program and CARB's Low-Emission Vehicle program because a manufacturer would be required to satisfy its annual sales requirement through its own production and sales of clean-fuel vehicles. This could cause a manufacturer, who under CARB's program could take advantage of the averaging, trading, and banking options, to incur additional costs due to the absence of these opportunities in the Federal program.

EPA proposes to allow manufacturers flexibility in meeting their clean-fuel vehicle sales requirements by permitting them to produce and sell fewer vehicles which meet more stringent emission standards than required, to purchase credits from other manufacturers in lieu of producing and selling clean-fuel vehicles, or to bank credits for use at a later date in lieu of future clean-fuel vehicle sales. Such flexibility would allow manufacturers to optimize their clean-fuel vehicle development programs in concert with CARB's program.

B. Statutory Requirements

Section 249(d) places a number of statutory requirements on the design of a federal credits program. EPA may issue credits to vehicle manufacturers for the sale of more clean-fuel vehicles than required and for the sale of clean-fuel vehicles that meet more stringent emission standards than those otherwise applicable to clean-fuel vehicles. Further, the more stringent standards for the issuance of credits and the requirements relating to the weighting of credits on the basis of emission reductions which are established by EPA under the provisions of the clean-fueled fleets program are also to apply to the Pilot Program. Credits issued by EPA to manufacturers under the Pilot Program may be transferred to other manufacturers, i.e., they may be traded. Furthermore, any credits issued in accordance with the Pilot Program are to be granted notwithstanding any State law

requirements or credits granted with respect to the same vehicles under State law. Despite these statutory requirements, section 249(d)(1)(B) provides EPA with some discretion regarding the credit program for the Pilot Program by stating that the "Administrator may make the credits available for use after consideration of enforceability, environmental, and economic factors and upon such terms and conditions as he finds appropriate."

C. Credit Provisions of CARB's Low-Emission Vehicle Program

CARB has established a program which requires the sales of clean-fuel vehicles through the establishment of decreasing fleet average NMOG emission requirements for manufacturers of vehicles up to 6000 lbs GVWR and clean-fuel vehicle sales percentage requirements for manufacturers of trucks up to 14,000 lbs GVWR. This separation of the vehicle classes for the purposes of establishing clean-fuel vehicle sales requirements has resulted in CARB actually having two different credit programs. One applies to LDVs and LDTs up to 6000 lbs GVWR. The second program applies to medium-duty vehicles, which, when pertaining to clean-fuel vehicles, are defined in CARB's Low-Emission Vehicle Regulations as any 1992 and subsequent model year heavy-duty low-emission vehicle or ultra-low emission vehicle having a manufacturer's GVWR of 14,000 lbs or less. The clean-fuel vehicle classes subject to the Pilot Program will be a subset of the classes subject to CARB's program since the Pilot Program only includes vehicles up to 8500 lbs GVWR.

1. Credits for Clean-Fuel Vehicles Under 6000 lbs GVWR

For vehicles up to 6000 lbs GVWR, CARB requires each manufacturer to certify its vehicles to conventional and clean-fuel vehicle emission standards in numbers such that the manufacturer's California fleet average NMOG exhaust emission value is less than or equal to the fleet average NMOG exhaust emission requirement for the corresponding model-year, vehicle type, and loaded vehicle weight subclass. In addition to meeting the fleet average NMOG requirement, each manufacturer's fleet must also consist of a required percentage of ZEVs starting in the 1998 model year.

If a manufacturer certifies either of the two loaded vehicle weight subclasses at fleet average NMOG exhaust emission values lower than the corresponding fleet average requirement, the manufacturer may earn

emission credits in units of grams per mile equal to the difference between the manufacturer's fleet average and the fleet average requirement, multiplied by the number of vehicles sold in that weight class by the manufacturer. In the same fashion, manufacturers would earn emission debits if the fleet average NMOG value was greater than the fleet average NMOG requirement.

A manufacturer can apply emission credits earned from one of the weight subclasses to the other weight subclass, trade the credits to another manufacturer to be applied to either weight subclass, bank the credits for a later model-year, or any combination thereof. The credits cannot be applied, however, to truck classes over 6000 lbs GVWR.

2. Credits for Clean-Fuel Vehicles 6001 to 14,000 lbs GVWR

For trucks from 6001 to 14,000 lbs GVWR, CARB requires, starting with the 1998 model year, each manufacturer to certify its vehicles to conventional gasoline and clean-fuel vehicle emission standards in numbers such that the manufacturer's fleet consists of a minimum percentage of LEVs and a minimum percentage of ULEVs. There is no sales distinction between the test weight (tw) classes among these vehicles.

A manufacturer may earn credits by selling more clean-fuel vehicles than required by the sales percentages or by selling clean-fuel vehicles that meet more stringent standards than required (e.g., ZEVs). The credits are in units called "vehicle equivalent credits" which have a base unit value of 1.0 equal to one LEV. Credit values for the more stringent clean-fuel vehicles are determined by the additional NMOG reduction that the vehicle achieves compared to the LEV in the same weight class.

A manufacturer can apply the vehicle equivalent credits earned to either of the vehicle emission categories (LEV or ULEV), trade the credits to another manufacturer to be applied to either vehicle emission category, bank the credits for a later model-year, or any combination thereof. The credits cannot be applied, however, to vehicle classes under 6000 lbs GVWR.

3. Summary of CARB's Credit Program

Apart from the differences described above, CARB's two credit programs share many of the same provisions. These include discounting banked credits, granting credits to manufacturers starting in 1992 for selling clean-fuel vehicles before they are

required, allowing additional credit for clean-fuel vehicles that can operate over limited ranges under electrical power, and negative banking. Negative banking allows a manufacturer to certify its fleet even with a credit deficit with the stipulation that the manufacturer must equalize the credit deficit in a future model-year by earning credits or by purchasing credits in an amount equal to the previous credit deficit. In the credit program for vehicles up to 6000 lbs GVWR, credit deficits from model-years 1994 through 1997 must be equalized prior to the end of the 1998 model-year. For 1998 and subsequent model-years, a credit deficit in either CARB credit program must be equalized prior to the end of the following model-year.

D. Statutory Differences Between the Credit Programs of the Pilot Program and CARB's Low-Emission Vehicle Program

The goal of EPA is to promulgate the Pilot Program in a manner that minimizes any additional economic burden on vehicle manufacturers or adverse impacts on other entities due to CARB's Low-Emission Vehicle program. EPA's proposed credit program is designed to be consistent with CARB's credit program wherever it is reasonable and legally justifiable in order to grant vehicle manufacturers the same flexibility in meeting the Pilot Program sales requirements as provided to them in CARB's program. However, statutory provisions of the CAA preclude EPA from promulgating a credit program for the Pilot Program that exactly matches that of CARB's. The differences between the Pilot Program and CARB's credit programs are presented below.

The principal difference between the two programs centers on the weighting of credits. Section 249(d)(3) of the CAA states that clean-vehicle emission credit standards and credit weighting requirements established by the Administrator for the credit program of the clean-fueled fleets program shall also apply to the credit program for the Pilot Program. The emission credit standards for the clean-fueled fleets and the Pilot Program will conform as close as possible to those of CARB pursuant to section 246(f)(4). However, since the weightings used in the proposed clean-fueled fleets program differ from the credit weightings in CARB's program, the weightings for the Pilot Program must also differ from CARB. For reference, a copy of the fleets NPRM, "Fleets Regulation: Federal Fleets Program, Credits Standards and Program, and Exemptions from Transportation Control Measures", has been placed in the docket.

The use of the clean-fueled fleets credit weightings necessitates that the Pilot Program's credits be different than CARB's in two ways. First, fleet average NMOG values used in CARB's program for vehicles under 6000 lbs GVWR would not be used. The fleets program proposes credits based on individual vehicle emission reductions because the CAA required a covered fleet operator to purchase a given percentage of clean-fuel vehicles in each procurement of new vehicles. Therefore, it is appropriate to issue credits in terms of vehicles instead of fleet averages. This method is similar to CARB's credit program for trucks over 6000 lbs GVWR.

Second, in keeping with the flexibility allowed in the CAA, the proposed clean-fueled fleets program allows averaging and trading across all subclasses of LDVs and LDTs, unlike CARB's program which does not allow the transfer of credits between vehicles less than and greater than 6000 lbs GVWR. In adopting the fleets' weighting method, the Pilot Program would allow the manufacturers even greater flexibility in the use of credits than does the CARB program.

Failure by EPA to use the same credit weighting as the clean-fueled fleets would be in conflict with the provisions of the CAA. However, the use of credit weightings different than that of CARB's program are not expected to have a negative impact on vehicle manufacturers or CARB. Rather, the proposed credit program would allow manufacturers even more flexibility due to the allowance of averaging and trading over all classes of vehicles up to 8500 lbs GVWR. This flexibility is in keeping with the intent of the CAA, as well as established EPA policy.

Section 249(c)(1) of the CAA specifies that a certain minimum number of clean-fuel vehicles must be sold each year. To the extent that negative banking is allowed and used extensively in the early years of the program, there is a possibility that the statutory minimum clean-fuel vehicle sales requirement would not be met. This would effectively delay the implementation of the program, which the CAA does not give EPA the authority to do. Even if the statutory minimum number of vehicles were sold each year as a result of CARB's program, negative banking would force the Pilot Program to be dependent on CARB's program to achieve its end, and would not allow EPA to properly enforce the minimum sales requirement should the manufacturers fail to reach it. EPA, therefore, believes that it must require manufacturers meet the minimum sales

requirement of paragraph 249(c)(1). One approach to achieving this statutory objective is to prohibit negative banking. As an alternative, EPA might allow negative banking (consistent with the CARB program) so long as manufacturers meet the minimum sales requirement of paragraph 249(c)(1). EPA requests comments on how to carry out this approach and on the relative merits of these two options.

Even without negative banking, one might argue that a banking program could create the possibility that the minimum sales requirement may not be met since credits earned from earlier years could potentially be used in high enough quantities in a later model-year to satisfy the sales requirement without actually selling the minimum number of vehicles. However, since the vehicles that earned credits in earlier years are already in service, the total number of clean-fuel vehicles in use is not reduced by the presence of a banking program and the environmental benefits are not diminished. Therefore, EPA believes that banking credits for future use could result in an acceleration of the implementation of the program, not a delay.

The absence of negative banking should not significantly impact manufacturers. Since a manufacturer's clean-fuel vehicle sales requirements under CARB's plan will be higher than under the Pilot Program (assuming that vehicles sold to comply with CARB's program will also comply with the CAA), a manufacturer can still take advantage of CARB's negative banking provision and sell fewer clean-fuel vehicles in a model-year as long as its sales and/or credits are high enough to fulfill its Pilot Program requirement. On the presumption that CARB's sales requirements will far exceed those of the Pilot Program, an excess supply of Pilot Program credits should result. Consequently, the option of purchasing credits in lieu of meeting the Pilot Program sales requirements should be readily available. In this way, a manufacturer would not be prevented from taking full advantage of CARB's negative banking provision.

In summary, taking into account the above discussion and the economic and environmental impact sections to follow, EPA believes that differences, due to the CAA statutes, between the federal credit program and CARB's will not negatively impact the vehicle manufacturers or CARB's Low-Emission Vehicle program.

E. Proposed Credit Program for Pilot Program

EPA proposes the following credit program to grant vehicle manufacturers similar flexibility in meeting the Pilot Program sales requirements as they have in CARB's program. It is the intent of the EPA to match CARB's credit program wherever it is reasonable and consistent with the requirements of the CAA. Vehicle manufacturer participation in the Pilot Program's credit program would be voluntary. As long as a manufacturer fulfills its sales requirement through its own clean-fuel vehicle sales, there would be no need for the manufacturer to participate in the credit program, unless it chooses to accumulate credits for future use or for trading with other manufacturers.

1. Averaging

The CAA provides that the credit program for the Pilot Program include averaging, which would allow a manufacturer to earn credits from the sale of clean-fuel vehicles that meet more stringent NMOG exhaust emission standards than required. These credits could be applied toward the manufacturer's sales requirement in order to reduce the total number of clean-fuel vehicles it must sell. This should encourage the introduction of clean-fuel vehicles which meet more stringent standards. Averaging across vehicle classes would achieve the same environmental benefit and allow manufacturers similar flexibility as with CARB's program to optimize the development of their clean-fuel vehicle fleet.

The CAA does not specify any weight class restrictions on the use of credits for this program, which provides maximum flexibility to vehicle manufacturers in complying with their sales requirements. Consequently, EPA proposes only one averaging category covering all clean-fuel LDVs and LDTs. This is consistent with the CAA provisions for the clean-fueled fleets credit program and would allow the credit weighting requirements of the fleet program to be carried over to the Pilot Program. Finally, EPA is unaware of any strong environmental justification placing weight class restrictions on the use of the credits given the vehicle classes involved.

2. Trading

Trading of credits between manufacturers is explicitly permitted by section 249(d)(1) of the CAA. Trading would give manufacturers increased flexibility in meeting their sales requirements. Trading would also allow

small volume manufacturers the ability to avoid the disproportionately high cost of clean-fuel vehicle development, while still contributing to the overall clean-fuel sales requirements. By purchasing credits through trading, small volume manufacturers would help defray the cost of developing the clean-fuel vehicle technology in proportion to their California sales volumes.

3. Banking

Although the CAA does not require a banking provision in the Pilot Program, EPA is proposing a banking program. EPA believes that a banking provision would encourage both the early development of clean-fuel vehicles and the development of vehicles meeting more stringent emission standards than required. It also facilitates the transition to tighter standards in the 2001 model-year. In addition, banking provides manufacturers the same flexibility as in CARB's program. Each model-year, a manufacturer would be given the option of either trading or banking credits earned that were not used in averaging to meet the current model-year sales requirement.

EPA proposes that banked credits not be subject to a discounting schedule or a finite life. While this is inconsistent with the discounting schedule utilized in CARB's program, it is consistent with the CAA requirements for the clean-fueled fleets program. A banked credit in the Pilot Program shall maintain its original value regardless of when it is used. EPA believes that the flexibility granted by infinite credit life is consistent with the intent of the CAA that the Pilot Program serve as a unique test program to demonstrate the effectiveness of clean-fuel vehicles in controlling air pollution in ozone nonattainment areas.

EPA is also proposing that credits be granted for clean-fuel vehicles sold prior to 1996. The granting of early credits would allow manufacturers to bank credits, which could be used for averaging and trading in the initial years of the Pilot Program to assist in a smooth transition into the program. EPA proposes that clean-fuel vehicles sold in the 1994 model-year be the first vehicles eligible to receive early vehicle credits because 1994 would be the first full model-year after promulgation of all clean-fuel vehicle standards and certification requirements.

4. Credit Standards

Section 242 of the CAA does not require EPA to promulgate clean-fuel vehicle standards until November 15, 1992. However, in order to demonstrate how the proposed credit values were determined, table 1 lists exhaust

emission standards that are included for illustrative purposes only. This table is included with the understanding that any changes in EPA's expectation of the standards prior to issuance of this final rule will be factored into the final rule calculations for the credit values. Also, any changes to these emission standards in the subsequent rulemaking on clean-fuel vehicle standards that cause a change in the credit values will be accounted for in the subsequent rulemaking. To simplify the credit calculations, only the 50,000 mile standards are used.

Section 243 of the CAA clearly defines the minimum clean-fuel vehicle NMOG, CO, NO_x, PM, and formaldehyde exhaust emission requirements. Sections 243(e) and 243(f) establish a process by which CARB's standards are to replace the standards set forth in section 242 and section 234 in certain circumstances. In addition, section 246(f)(4) of the CAA, which concerns the clean-fueled fleets program, requires EPA to promulgate more stringent exhaust emission standards to be used solely for the purposes of issuing credits. These more stringent standards are to conform as closely as possible to the emission standards established by CARB. Section 249(d)(3) requires that these more stringent standards also apply to the Pilot Program.

Since the clean-fuel vehicle standards established in section 243 of the CAA are identical to those established by CARB in their Low-emission Vehicle program and the more stringent standards to be promulgated for credit purposes must also match those established by CARB, the exhaust emissions standards listed in table 1 for NMOG, CO, NO_x, particulate matter and formaldehyde match the exhaust emission standards established by CARB.

For vehicles up to 6000 lbs GVWR, Phase I clean-fuel vehicles would be equivalent to CARB's TLEV emission category and Phase II would be equivalent to CARB's LEV emission category. When Phase II starts in the 2001 model-year, TLEVs will no longer qualify as a federal clean-fuel vehicle and will, therefore, not count toward meeting the Pilot Program sales requirements. For vehicles from 6001 and 8500 lbs GVWR, the CAA defines CARB's LEV emission category as a clean-fuel vehicle. The two additional emission categories for credit purposes only are defined to be CARB's ULEV and ZEV classifications.

Clean-fuel vehicles sold in California must meet all of the federal requirements in order to qualify as a

clean-fuel vehicle and count toward the Pilot Program sales requirement. Discussion of these and other certification and enforcement requirements will be contained in the subsequent rulemaking.

5. Credit Weighting

Pursuant to the statutory requirement of the CAA, EPA is proposing the same credit weighting and methodology used to determine the credit values proposed for the clean-fueled fleets program be used for the Pilot Program. Credits generated under the Pilot Program would be provided to vehicle manufacturers for use in meeting the minimum sales requirement of the Pilot Program, whereas credits under the clean-fueled fleets program are provided to fleet operators for use in fulfilling the clean-fuel fleets purchase requirements. For further information on the fleets program, the NPRM "Fleets Regulation: Federal Fleets Program, Credits Standards and Program, and Exemptions from Transportation Control Measures" has been placed in the docket. Although the fleets program includes both light-duty and heavy-duty vehicle classes, only the credit values for LDTs and LDVs are applicable to the Pilot Program.

The clean-fueled fleets proposal includes two sets of credit weightings: one based on NMOG exhaust emission reductions and the other based on a combination of NMOG and NO_x exhaust emission reductions. The set based on NMOG reductions is the required one for the fleets program, but a state covered by the fleets program could choose to use the NMOG and NO_x weighting provision in lieu of the NMOG set if it believed that the choice was appropriate and EPA approved. The State of California, however, has already adopted a credit program based solely on NMOG exhaust emission reductions, apparently in the belief that such a program is appropriate. Although other pollutants are being controlled by the clean-fuel vehicles, credit weightings based solely on NMOG reductions would also be the most consistent with the Pilot Program's goals of controlling pollution in ozone nonattainment areas of the State of California. Therefore, EPA is proposing that weighting factors based on the NMOG reduction method be used in the Pilot Program. EPA seeks comments on other weighting factors, in addition to NMOG exhaust emission reduction, that could be applicable to the Pilot Program. Any weighting factor must also be applicable to the clean-fuel fleets program.

The methodology proposed by the fleets program to determine credit

values is directly applicable to the Pilot Program since the requirements for both programs are in terms of numbers of clean-fuel vehicles. The Pilot Program will require a vehicle manufacturer with sales in California to sell a minimum number of clean-fuel vehicles in the State of California. The fleets program will require that a minimum percentage of vehicles purchased by qualifying fleet owners be clean-fuel vehicles.

Section 246(f)(2)(C) of the CAA requires that credits be adjusted with appropriate weighting to reflect the level of emission reductions achieved by clean-fuel vehicles. Standards-based weighting factors depend not only on the more stringent standards EPA is required to promulgate, but also on the standards for conventional vehicles and for the minimum clean-fuel vehicle. The amount of credit assigned to a cleaner vehicle depends on how much further these vehicles go beyond the minimum clean-fuel vehicle in reducing emissions.

As mentioned above, the EPA is using the emission standards listed in table 1 for the purpose of credit calculations, with the understanding that any change in these standards that alters the NMOG exhaust emission reductions will be factored into the credit values either in the final rule or in the clean-fuel vehicle standards rulemaking.

The credit values proposed by the fleets program do not take into account Phase I clean-fuel vehicles because Phase I vehicles are not subject to the fleets program. Therefore, in addition to proposing the adoption of the fleets credit values for 2001 and subsequent model-years, EPA is proposing credit values for the Phase I vehicles of the Pilot Program using the same methodology as used to determine the credit values in the fleets program. The credit values being proposed for Phase I are shown in table 2 and would be effective through model year 2000. The credit values developed for the fleets program and proposed for 2001 and subsequent model-years are shown in Table 3.

A summary of how the proposed credit values were determined for Phase I follows. For a more detailed explanation of the methodology used for determining the credit values, see the NPRM "Fleets Regulation: Federal Fleets Program, Credits Standards and Program, and Exemptions from Transportation Control Measures," in the docket.

To facilitate the exchange of credits across all subclasses of LDVs and LDTs, EPA is proposing that all credit values be normalized to the NMOG exhaust emission reduction required by LDVs.

Therefore, the term vehicle-equivalent refers to the reduction calculated for a LDV certified to the minimum clean-fuel standards (TLEV through 2000, LEV 2001 and after). In the case of early/extra clean-fuel vehicle sales, the equation for determining credit value would be:

$$ncredit = \frac{[S_{cv}^x - S_{TLEV, LEV, ULEV, or ZEV}^x]}{[S_{LDV}^{LDV} - S_{TLEV}^{LDV}]} \quad (1)$$

where:

ncredit = normalized credit weighting (LDV equivalent)

S_{TLEV, LEV, ULEV, or ZEV}^x = NMOG standard for TLEV, LEV, ULEV, ZEV

S_{cv}^x = NMHC standard for conventional vehicle

x = the vehicle class/subclass of interest

For credit issuance involving LEV, ULEV, or ZEV sales which are also being used to demonstrate compliance with the minimum sale requirement, the equation is:

$$ncredit = \frac{[S_{TLEV}^x - S_{LEV, ULEV, or ZEV}^x]}{[S_{LDV}^{LDV} - S_{TLEV}^{LDV}]} \quad (2)$$

Using these two equations, the resulting credit values through the 2000 model-year are shown in table 2. Since the LDTs over 6000 lbs GVWR will not be included in the minimum sales requirement until the standards for these trucks become effective in the 1998 model-year, the credit values in table 2.2 for these vehicles do not apply until the 1998 model-year. Manufacturers may still earn early credits for LDTs over 6000 lbs GVWR corresponding to the values in table 2.1.

The proposed credit weightings are based solely on emission standards and do not reflect any subclass differences in mileage or vehicle life. Any useful life difference among the clean-fuel vehicle classes that might affect the level of emission reduction is small and, therefore, can be neglected. Since there is not a substantial difference between the useful lives of LDVs and LDTs, and since the trend in these vehicle classes is toward increasing similarity in usage patterns and technology, adjusting the credit does not seem justifiable given the increased complexity that these factors would present. EPA requests comment on this approach, keeping in mind that any adjustment to the credit weighting must be applicable to both the Pilot Program and the clean-fueled fleets program.

Another factor that could be included in the credit values is the potential for vehicles which use electrical power for a limited driving range with another fuel source providing the balance of the power. Called hybrid electric vehicles, these vehicles do not deserve the full credit of a ZEV, but may merit additional credit than the emission

category to which the additional fuel source is certified. One option would be to adapt CARB's method of classifying these vehicles according to their emissions on the fuel source and adjusting the credit value to account for the vehicles' range on electric power. EPA requests comment on this issue.

6. Use of Credits

For credit generating purposes, if a manufacturer sells more clean-fuel vehicles than required for the Pilot Program, it would have the discretion of choosing which clean-fuel vehicles count toward the minimum sales requirement and which clean-fuel vehicles would count as additional clean-fuel vehicles. To determine how much credit is earned due to the additional vehicles, table 2.1 or table 3.1, depending on the model-year, would be used. If any of the vehicles chosen to count toward the minimum sales requirement also qualify as meeting the more stringent emission standards, the manufacturer would also receive credit corresponding to the credit values in table 2.2 or 3.2.

If a manufacturer does not sell the minimum number of clean-fuel vehicles required by the Pilot Program, credits can only be earned for the sale of clean-fuel vehicles meeting the more stringent emission standards. These credits would correspond to the credit values in table 2.2 or 3.2.

In the case where a manufacturer does not sell the minimum number of clean-fuel vehicles required by the Pilot Program, it must purchase sufficient credits in lieu of the clean-fuel vehicles it did not sell. These credit values are in table 2.3 or 3.3. The manufacturer would have the discretion of choosing which of the vehicles it sold were in lieu of selling the required clean-fuel vehicles. The manufacturer would then be required to purchase sufficient credits according to the credit values of the vehicle classes and/or subclasses it chose. Since the EPA is proposing only one trading class for the credits, the manufacturer would be free to apply the obtained credit to any of its vehicle classes and/or subclasses.

Although the sales requirement does not include trucks prior to the 1998 model year, credits earned from the early sale of these vehicles can be used starting in the 1996 model year.

The subsequent Pilot Program rulemaking, which will define the certification and enforcement provisions of the clean-fuel vehicle sales requirement, will also define the enforcement provisions for both reporting requirements and credit shortfall necessary for this rulemaking.

These enforcement provisions are common to both rulemakings and are better handled with all other enforcement provisions in the later rulemaking.

7. Sales Requirements

As discussed earlier, EPA will promulgate the sales requirements under a later rulemaking. However, in order to define the basis for granting credits under this rulemaking, EPA believes it necessary to define the term "sales" at this time. Section 249(c)(1) of the CAA defines the minimum sales requirement in terms of vehicles that are "produced, sold, and distributed (in accordance with normal business practices and applicable franchise agreements) to ultimate purchasers in California * * *". EPA proposes that "sales" be defined in terms of the quoted statutory language, but requests comment on how this can be implemented in a manner so as to minimize the burdens on manufacturers while adhering to the statutory requirements.

III. Environmental Impact

EPA believes that the proposed credit program would not result in a negative environmental impact and that we have taken all reasonable means to ensure the environmental neutrality of the credit program. Furthermore, the magnitude of CARB's Low-Emission Vehicle program, which requires clean-fuel vehicle sales that far exceed the sales requirements of the Pilot Program, should insure that all environmental benefits envisioned to result from the Pilot Program are achieved.

IV. Economic Impact

The intent of the credit program is to provide flexibility to the vehicle manufacturers in meeting their clean-fuel vehicle sales requirements, in order to provide an economic benefit with no decrease in environmental benefits. Since CARB's Low-Emission Vehicle program will create greater environmental benefits and economic impacts than the Pilot Program, the proposed credit program should not increase the economic burden.

Given that there are two different, but similar credit programs, it is possible, however, that on a manufacturer specific basis some minor negative economic impacts could result. To the extent a manufacturer chooses to participate in the federal credit program, it will have to track and purchase federal credits in addition to California credits in lieu of the clean-fuel vehicles it otherwise would have produced. The trading of Federal and California credits will likely take place together because a

manufacturer who needs to purchase federal credits will also be in need of California credits. The cost to purchase credits will be determined by the free-market, but is likely to be no higher than the cost of producing clean-fuel vehicles since a manufacturer would probably produce a clean-fuel vehicle rather than pay more than its production cost for credits. The cost of producing a clean-fuel vehicle is independent of whether there is a federal credit program or not. As a result, whether the manufacturers must purchase only California credits or both federal and California credits, the cost is expected to be the same.

As a result, EPA believes that the proposed credit program is such that negative economic impacts should not occur. Therefore, the cost of clean-fuel vehicles to the consumer is expected to be no different than what will result from the implementation of CARB's program.

V. Energy Impact

The implementation of a credit program for the Pilot Program should have a minimal energy impact. Because manufacturers can earn more credit for vehicles which meet more stringent standards, fewer clean-fuel vehicles could theoretically be sold. The result would be a smaller fleet of clean-fuel vehicles than if no credit program was available. This reduction in fleet size would also reduce the volume of each particular clean-fuel.

The more stringent the vehicle standards, however, the more likely the vehicles are to be powered by a fuel other than gasoline. EPA is currently unaware of any reliable projections of the type of vehicles, the fuel used, or the energy efficiency of the clean-fuel vehicles that will be sold.

As discussed in the environmental and economic impact sections, due to the size CARB's program, no fuel volume changes resulting from this credit program should occur. The Pilot Program should not affect the choice of clean-fuel vehicles and the choice of fuels used beyond what CARB's program will require. EPA, therefore, believes there will be no adverse energy impact associated with this NPRM.

VI. Public Participation

EPA desires full public participation in arriving at its final decisions, and therefore solicits comments on all aspects of this proposal. Wherever applicable, full supporting data and detailed analysis should be submitted to allow EPA to make maximum use of the comments. Commenters are especially encouraged to provide specific

suggestions for changes to any aspect of the regulations that they believe need to be modified or improved. All comments should be directed to EPA Air Docket, Docket No. A-91-23 (See "ADDRESSES"). The official comment period will last for 30 days following the public hearing for this rulemaking.

Any person desiring to testify at the public hearing [see "DATES"] should notify the contact person listed above of such intent at least 7 days before the hearing date. Persons wishing to testify at the hearing should also provide an estimate of the time required for their presentation and notification of any need for audio/visual equipment. It is suggested that sufficient copies of the statement of material to be presented be brought to the hearing for distribution to the audience. In addition, a sign-up sheet will be available at the registration table the morning of the hearing for scheduling of the order of testimony.

The official record of the hearing will be kept open for 30 days following the hearing to allow submission of rebuttal and supplementary testimony. All such submittals should be directed to the EPA Air Docket, Docket No. A-91-23 (see "ADDRESSES").

Commenters desiring to submit proprietary information for consideration should clearly distinguish such information from other comments to the greatest possible extent, and clearly label it "Confidential Business Information." Submissions containing such proprietary information should be sent directly to the contact person listed above, and not to the public docket, to ensure that proprietary information is not inadvertently placed in the docket.

Information covered by such a claim of confidentiality will be disclosed by EPA only to the extent allowed and by the procedures set forth in 40 CFR part 2. If no claim of confidentiality accompanies the submission when it is received by EPA, it may be made available to the public without further notice to the commenter.

The hearing will be conducted informally, and technical rules of evidence will not apply. Written transcripts of the hearing will be made. Anyone desiring to purchase a copy of

the transcript should make individual arrangements with the court reporter recording the proceedings.

VII. Statutory Authority

The statutory authority for today's proposal is granted to EPA by sections 241, 246, 249, and 301(a) in title II, part C of the Clean Air Act, as amended; 42 U.S.C. 7581, 7586, 7589, and 7601(a).

VIII. Administrative Designation and Regulatory Analysis

Under Executive Order 12291, EPA must judge whether a regulation is "major" and therefore subject to the requirement that a Regulatory Impact Analysis be prepared. Major regulations have an annual effect on the economy in excess of \$100 million, have a significant adverse impact on competition, investment, employment or innovation, or result in a major price increase. The elements of this rulemaking package do not constitute a major rule according to the established criteria. The implementations of this credit will not increase the cost of clean-fuel vehicles, but will instead allow manufacturers another option which will help produce clean-fuel vehicles at lower costs. Therefore, it has been determined that this proposal does not constitute a "major" regulation.

This regulation was submitted to the Office of Management and Budget (OMB) for review as required by Executive Order 12291. Any written comments from OMB and any EPA response to those comments have been placed in the public docket for this rulemaking.

IX. Compliance with Regulatory Flexibility Act

Under section 605 of the Regulatory Flexibility Act, the Administrator is required to certify that a regulation will not have a significant adverse economic impact on a substantial number of small business entities. There will not be a significant impact on a substantial number of small business entities due to the credit program for the Pilot Program. The credit program will be beneficial for small volume manufacturers in meeting any sales requirement issued against them due to the option of purchasing

credits in lieu of undertaking the financial investment to develop clean-fuel vehicles. For this reason, the rules contained in this NPRM will not have a significant adverse economic impact on a substantial number of small entities.

X. Reporting and Recordkeeping Requirements

The information collection requirements in this proposed rule have been submitted for approval to the Office of Management and Budget (OMB) under the *Paperwork Reduction Act*, 44 U.S.C. 3501 *et seq.* An Information Collection Request document has been prepared by EPA (ICR No. 1590.01) and a copy may be obtained from Sandy Farmer, Information Policy Branch; EPA; 401 M St., SW. (PM-223Y); Washington, DC 20460 or by calling (202) 260-2740.

Public reporting burden for this collection of information is estimated to be 30 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing the collection of information.

Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Chief, Information Policy Branch; EPA; 401 M St., SW. (PM-223Y); Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503, marked "Attention: Desk Officer for EPA." The final Rule will respond to any OMB or public comments on the information collection requirements contained in this proposal.

List of Subjects in 40 CFR Part 88

Administrative practice and procedures, Air pollution control, Gasoline, Motor vehicle pollution, Reporting and recordkeeping requirements.

Dated: September 4, 1991.

William K. Reilly,
Administrator.

Appendix to Preamble—Tables

TABLE 1.— EXHAUST EMISSION STANDARDS FOR CLEAN-FUEL VEHICLES 50,000 MILE STANDARDS

Vehicle emission category standards (g/mi)		LDV & LDT ≤ 6000 gvwr ≤ 3750 lvw	LDT < 6000 gvwr > 3750 lvw < 5750 lvw	LDT 2 > 6000 gvwr ≤ 3750 tw	LDT 2 > 6000 gvwr > 3750 tw < 5750 tw	LDT 2 > 6000 gvwr ≤ 5750 tw
CV:						
NMHC		0.25	0.32	0.25	0.32	0.39
CO		3.4	4.4	3.4	4.4	5.0
NOx		0.4	.7	.4	.7	1.1

TABLE 1.—EXHAUST EMISSION STANDARDS FOR CLEAN-FUEL VEHICLES 50,000 MILE STANDARDS—Continued

Vehicle emission category standards (g/mi)	LDV & LDT ≤ 6000 gvwr ≤ 3750 lww	LDT < 6000 gvwr > 3750 lww < 5750 lww	LDT ² > 6000 gvwr ≤ 3750 tw	LDT ² > 6000 gvwr > 3750 tw ≤ 5750 tw	LDT ² > 6000 gvwr ≤ 5750 tw
TLEV:			(¹)	(¹)	(¹)
NMOG.....	.125	.160			
CO.....	3.4	4.4			
NOx.....	.4	.7			
HCHO.....	.015	.018			
LEV:					
NMOG.....	.075	.100	.125	.160	.195
CO.....	3.4	4.4	3.4	4.4	5.0
NOx.....	.2	.4	.4	.7	1.1
HCHO.....	.015	.018	.015	.018	.022
ULEV:					
NMOG.....	.040	.050	.075	.100	.117
CO.....	1.7	2.2	1.7	2.2	2.5
NOx.....	.2	.4	.2	.4	.6
HCHO.....	.008	.009	.008	.009	.011
ZEV:					
NMOG.....	.0	.0	.0	.0	.0
CO.....	.0	.0	.0	.0	.0
NOx.....	.0	.0	.0	.0	.0
HCHO.....	.0	.0	.0	.0	.0

¹ There is no TLEV category for this vehicle class.² The clean-fuel vehicle standards are not effective until the 1998 model-year.
CV=Conventional gasoline vehicle.

TABLE 2.—CREDIT TABLE FOR PHASE I

VEHICLE EQUIVALENTS FOR LIGHT-DUTY VEHICLES AND LIGHT-DUTY TRUCKS

PHASE I: EFFECTIVE THROUGH 2000 MODEL-YEAR

TABLE 2.1—CREDIT GENERATION: SELLING MORE CLEAN-FUEL VEHICLES THAN REQUIRED

Vehicle emission category	LDV & LDT ≤ 6000 gvwr ≤ 3750 lww	LDT < 6000 gvwr > 3750 lww ≤ 5750 lww	LDT ² > 6000 gvwr ≤ 3750 tw	LDT ² > 6000 gvwr > 3750 tw ≤ 5750 tw	LDT ² > 6000 gvwr ≤ 5750 tw
TLEV.....	1.00	1.28	(¹)	(¹)	(¹)
LEV.....	1.40	1.76	1.00	1.28	1.56
ULEV.....	1.68	2.16	1.40	1.76	2.18
ZEV.....	2.00	2.56	2.00	2.56	3.12

TABLE 2.2—CREDIT GENERATION: SELLING MORE STRINGENT CLEAN-FUEL VEHICLES

Vehicle emission category	LDV & LDT ≤ 6000 gvwr ≤ 3750 lww	LDT < 6000 gvwr > 3750 lww ≤ 5750 lww	LDT ² > 6000 gvwr ≤ 3750 tw	LDT ² > 6000 gvwr > 3750 tw ≤ 5750 tw	LDT ² > 6000 gvwr ≤ 5750 tw
TLEV.....	0.00	0.00	(¹)	(¹)	(¹)
LEV.....	.40	.48	0.00	0.00	0.00
ULEV.....	.68	.88	.40	.48	.62
ZEV.....	1.00	1.28	1.00	1.28	1.56

TABLE 2.3—CREDIT NEEDED IN LIEU OF SELLING CLEAN-FUEL VEHICLE

Vehicle emission category	LDV & LDT ≤ 6000 gvwr ≤ 3750 lww	LDT < 6000 gvwr > 3750 lww ≤ 5750 lww	LDT ² > 6000 gvwr ≤ 3750 tw	LDT ² > 6000 gvwr > 3750 tw ≤ 5750 tw	LDT ² > 6000 gvwr ≤ 5750 tw
TLEV.....	1.00	1.28	(¹)	(¹)	(¹)
LEV.....			1.00	1.28	1.56

¹ There is no TLEV category for this vehicle class.² The clean-fuel vehicle standards are not effective until the 1998 model-year.

TABLE 3.—CREDIT TABLE FOR PHASE II

VEHICLE EQUIVALENTS FOR LIGHT-DUTY VEHICLES AND LIGHT-DUTY TRUCKS

PHASE II: EFFECTIVE 2001 AND SUBSEQUENT MODEL-YEARS

TABLE 3.1.—CREDIT GENERATION: SELLING MORE CLEAN-FUEL VEHICLES THAN REQUIRED

Vehicle emission category	LDV & LDT ≤ 6000 gvwr ≤ 3750 lw	LDT ≤ 6000 gvwr > 3750 lw ≤ 5750 lw	LDT > 6000 gvwr ≤ 3750 tw	LDT > 6000 gvwr > 3750 tw ≤ 5750 tw	LDT > 6000 gvwr > 5750 tw
LEV	1.00	1.26	0.71	0.91	1.11
ULEV	1.20	1.54	1.00	1.26	1.56
ZEV	1.43	1.83	1.43	1.83	2.23

TABLE 3.2.—CREDIT GENERATION: SELLING MORE STRINGENT CLEAN-FUEL VEHICLES

Vehicle emission category	LDV & LDT ≤ 6000 gvwr ≤ 3750 lw	LDT ≤ 6000 gvwr > 3750 lw ≤ 5750 lw	LDT > 6000 gvwr ≤ 3750 tw	LDT > 6000 gvwr > 3750 tw ≤ 5750 tw	LDT > 6000 gvwr > 5750 tw
LEV	0.00	0.00	0.00	0.00	0.00
ULEV	.20	.28	.29	.34	.45
ZEV	.43	.57	.71	.91	1.11

TABLE 3.3.—CREDIT NEEDED IN LIEU OF SELLING CLEAN-FUEL VEHICLE

Vehicle emission category	LDV & LDT ≤ 6000 gvwr ≤ 3750 lw	LDT ≤ 6000 gvwr > 3750 lw ≤ 5750 lw	LDT > 6000 gvwr ≤ 3750 tw	LDT > 6000 gvwr > 3750 tw ≤ 5750 tw	LDT > 6000 gvwr > 5750 tw
LEV	1.00	1.26	0.71	0.91	1.11

For reasons set forth in the Preamble, a new Part 88 of title 40 of the Code of Federal Regulations is proposed to be added to read as follows:

PART 88—CLEAN FUEL VEHICLES**Subpart A—Emission Standards for Clean Fuel Vehicles**

Sec.

88.101-94 Definitions.

88.102-94 Abbreviations.

Subpart B—California Pilot Test Program

88.201-94 Scope.

88.202-94 Definitions.

88.203-94 Abbreviations.

88.205-94 California Pilot Test Program Credits Program.

Tables to Subpart B of Part 88

Authority: Secs. 241, 246, 249, 301(a), Clean Air Act as Amended; 42 U.S.C. 7581, 7589, 7586, and 7601(a).

Subpart A—Emission Standards for Clean-Fuel Vehicles**§ 88.101-94 Definitions.**

The definitions in 40 CFR part 86 also apply to this subpart. The definitions of this section apply to all of part 88.

Low-Emission Vehicle means any light-duty vehicle or light-duty truck conforming to the applicable Low-

Emission Vehicle standard, or any heavy-duty vehicle with an engine conforming to the applicable Low-Emission Vehicle standard.

Non-methane Organic Gas is defined as in section 241(3) Clean Air Act as amended (42 U.S.C. 7581(3)).

Transitional Low-Emission Vehicle means any light-duty vehicle or light-duty truck conforming to the applicable Transitional Low-Emission Vehicle standard.

Ultra Low-Emission Vehicle means any light-duty vehicle or light-duty truck conforming to the Ultra Low-Emission Vehicle standard, or any heavy-duty vehicle with an engine conforming to the Ultra Low-Emission Vehicle standard.

Zero-Emission Vehicle means any light-duty vehicle or light-duty truck conforming to the applicable Zero-Emission Vehicle standard, or any heavy-duty vehicle conforming to the applicable Zero-Emission Vehicle standard.

§ 88.102-94 Abbreviations.

The abbreviations of Part 86 of this chapter also apply to this subpart. The abbreviations in this section apply to all of part 88.

LEV—Low-Emission Vehicle.

NMOG—Non-Methane Organic Gas.

TLEV—Transitional Low-Emission Vehicle.

ULEV—Ultra Low-Emission Vehicle.

ZEV—Zero-Emission Vehicle.

Subpart B—California Pilot Test Program**§ 88.201-94 Scope.**

Applicability. The requirements of this subpart shall apply to the following:

(a) State Implementation Plan revisions for the State of California pursuant to compliance with section 249 of the Clean Air Act, as amended in 1990 (40 CFR part 52, subpart F).

(b) Vehicle manufacturers with sales in the State of California.

§ 88.202-94 Definitions.

(a) The definitions in subpart A of this part also apply to this subpart.

(b) The definitions in this section shall apply beginning with the 1994 model year.

Averaging for clean-fuel vehicles means the sale of clean-fuel vehicles that meet more stringent standards than required, which allows the manufacturer to sell fewer clean-fuel vehicles than would otherwise be required.

Banking means the retention of credits, by the manufacturer generating the emissions credits, for use in future

model-year certification as permitted by regulation.

Sales means vehicles that are produced, sold, and distributed (in accordance with normal business practices and applicable franchise agreements) to ultimate purchasers in the State of California, including owners of covered fleets.

Trading means the exchange of credits between manufacturers.

§ 88.203-94 Abbreviations.

The abbreviations in Subpart A of this part and in 40 CFR Part 86 apply to this subpart.

§ 88.205-94 California Pilot Test Program Credits Program.

(a) *General.* (1) The Administrator shall administer this credit program to enable vehicle manufacturers who are required to participate in the California Pilot Test Program to meet the clean-fuel vehicle sales requirements through the use of credits. Participation in this credit program is voluntary.

(2) All credit-generating vehicles must meet the applicable emission standards and other requirements contained in Subpart A of this part.

(b) *Credit generation.* (1) Credits may be generated by any of the following means:

(i) Sale of qualifying clean-fuel vehicle earlier than required. Manufacturers may earn these credits starting with the 1994 model year.

(ii) Sale of a greater number of qualifying clean-fuel vehicles than required.

(iii) Sale of qualifying clean-fuel vehicles that meet more stringent emission standards than those required.

(2) For light-duty vehicles and light-duty trucks, credit values shall be determined in accordance with the following:

(i) For model-years through 2000, credit values shall be determined in accordance with table B-1 of this subpart.

(ii) For the 2001 and subsequent model-years, credit values shall be determined according to table B-2 of this subpart. The sale of light-duty vehicles classified as Transitional Low-Emission Vehicles shall not receive credits starting in model year 2001.

(iii) For the calculation of credits for the sale of more clean-fuel vehicles than required, the manufacturer shall designate which sold vehicles count toward compliance with the sales requirement. The remaining balance of

vehicles will be considered as sold beyond the sales requirement for credit calculations.

(3) Vehicles greater than 8500 lbs. gvwr may not generate credits.

(c) *Credit use.* (1) All credits generated in accordance with these provisions may be freely averaged, traded, or banked for later use. Credits may not be used to remedy any nonconformity determined by enforcement testing.

(2) There will be one averaging and trading group containing light-duty vehicles and light-duty trucks.

(3) A vehicle manufacturer desiring to demonstrate full or partial compliance with the sales requirements by the redemption of credits, shall surrender sufficient credits, as established in this paragraph (c). In lieu of selling a clean-fuel vehicle, a manufacturer shall surrender credits equal to the credit value for the corresponding vehicle class and model year found in table B-1.3 or table B-2.3 of this subpart.

(d) *Participation in the credit program.* (1) During certification, the manufacturer shall:

(i) Declare its intent to participate in this credit program.

(ii) Calculate the projected credits, if any, based on quarterly sales projections.

(2) Based on information from paragraph (d)(1) of this section, each manufacturer's certification application under this section must demonstrate:

(i) That at the end of the model-year production, there is a net vehicle credit balance of zero or more with any credits obtained from averaging, trading, or banking.

(ii) It is recommended that the source of the credits to be used to comply with the minimum sales requirements be stated. All such reports should include all credits involved in averaging, trading, or banking.

(3) During the model year, manufacturers must:

(i) Monitor projected versus actual production to be certain that compliance with the sales requirement is achieved at the end of the model year.

(ii) Provide the end of model year reports required under this subpart.

(iii) Maintain the quarterly records required under this subpart.

(4) Projected credits based on information supplied in the certification application may be used to obtain a certificate of conformity. However, any such credits may be revoked based on review of end-of-model year reports,

follow-up audits, and any other verification steps deemed appropriate by the Administrator.

(5) Compliance under averaging, banking, and trading will be determined at the end of the model year.

(6) If EPA or the manufacturer determines that a reporting error occurred on an end-of-year report previously submitted to EPA under this section, the manufacturer's credits and credit calculations will be recalculated. Erroneous positive credits will be void. Erroneous negative credit balances may be adjusted by EPA.

(i) If EPA review of a manufacturer's end-of-year report indicates an inadvertent credit shortfall, the manufacturer will be permitted to purchase the necessary credits to bring the credit balance to zero.

(ii) If within 90 days of receipt of the manufacturer's end-of-year report, EPA review determines a reporting error in the manufacturer's favor (i.e., resulting in a positive credit balance) or if the manufacturer discovers such an error within 90 days of EPA receipt of the end-of-year report, the credits will be restored for use by the manufacturer.

(e) *Averaging.* Averaging will only be allowed between clean-fuel vehicles under 8500 lbs gvwr.

(f) *Banking.*—(1) *Credit deposits.* (i) Under this program, credits can be banked starting in the 1994 model-year.

(ii) Manufacturers may bank credits only after the end of the model year and after EPA has reviewed their end-of-year report. During the model year and before submittal of the end-of-year report, credits originally designated in the certification process for banking will be considered reserved and may be redesignated for trading or averaging.

(2) *Credit withdrawals.* (i) After being generated, banked/reserved credits shall be available for use and shall maintain their original value.

(ii) Manufacturers withdrawing banked credits shall indicate so during certification and in their credit reports.

(3) Banked credits may be used in averaging, trading, or in any combination thereof, during the certification period. Credits declared for banking from the previous model year but unreviewed by EPA may also be used. However, they may be revoked at a later time following EPA review of the end-of-year report or any subsequent audit actions.

Tables to Subpart B of Part 88

TABLE B-1.—CREDIT TABLE FOR PHASE I

VEHICLE EQUIVALENTS FOR LIGHT-DUTY VEHICLES AND LIGHT-DUTY TRUCKS

PHASE I: EFFECTIVE THROUGH 2000 MODEL-YEAR

TABLE B-1.1.—CREDIT GENERATION: SELLING MORE CLEAN-FUEL VEHICLES THAN REQUIRED

Vehicle emission category	LDV & LDT ≤ 6000 gvwr ≤ 3750 lw	LDT ≤ 6000 gvwr > 3750 lw ≤ 5750 lw	LDT > 6000 gvwr ≤ 3750 tw	LDT > 6000 gvwr > 3750 tw ≤ 5750 tw	LDT > 6000 gvwr > 5750 tw
TLEV.....	1.00	1.28	(¹)	(¹)	(¹)
LEV.....	1.40	1.76	1.00	1.28	1.56
ULEV.....	1.68	2.16	1.40	1.76	2.18
ZEV.....	2.00	2.56	2.00	2.56	3.12

TABLE B-1.2.—CREDIT GENERATION: SELLING MORE STRINGENT CLEAN-FUEL VEHICLES

Vehicle emission category	LDV & LDT ≤ 6000 gvwr ≤ 3750 lw	LDT ≤ 6000 gvwr > 3750 lw ≤ 5750 lw	LDT > 6000 gvwr ≤ 3750 tw	LDT > 6000 gvwr > 3750 tw ≤ 5750 tw	LDT > 6000 gvwr > 5750 tw
TLEV.....	0.00	0.00	(¹)	(¹)	(¹)
LEV.....	.40	.48	0.00	0.00	0.00
ULEV.....	.68	.88	.40	.48	.62
ZEV.....	1.00	1.28	1.00	1.28	1.56

TABLE B-1.3.—CREDIT NEEDED IN LIEU OF SELLING CLEAN-FUEL VEHICLE

Vehicle emission category	LDV & LDT ≤ 6000 gvwr ≤ 3750 lw	LDT ≤ 6000 gvwr > 3750 lw ≤ 5750 lw	LDT > 6000 gvwr ≤ 3750 tw	LDT > 6000 gvwr > 3750 tw ≤ 5750 tw	LDT > 6000 gvwr > 5750 tw
TLEV.....	1.00	1.28	(¹)	(¹)	(¹)
LEV.....			1.00	1.28	1.56

¹ There is no TLEV category for this vehicle class.

TABLE B-2.—CREDIT TABLE FOR PHASE II

VEHICLE EQUIVALENTS FOR LIGHT-DUTY VEHICLES AND LIGHT-DUTY TRUCKS

PHASE II: EFFECTIVE 2001 AND SUBSEQUENT MODEL-YEARS

TABLE B-2.1.—CREDIT GENERATION: SELLING MORE CLEAN-FUEL VEHICLES THAN REQUIRED

Vehicle emission category	LDV & LDT ≤ 6000 gvwr ≤ 3750 lw	LDT ≤ 6000 gvwr > 3750 lw ≤ 5750 lw	LDT > 6000 gvwr ≤ 3750 tw	LDT > 6000 gvwr > 3750 tw ≤ 5750 tw	LDT > 6000 gvwr > 5750 tw
LEV.....	1.00	1.26	0.71	0.91	1.11
ULEV.....	1.20	1.54	1.00	1.26	1.56
ZEV.....	1.43	1.83	1.43	1.83	2.23

TABLE B-2.2.—CREDIT GENERATION: SELLING MORE STRINGENT CLEAN-FUEL VEHICLES

Vehicle emission category	LDV & LDT ≤ 6000 gvwr ≤ 3750 lw	LDT ≤ 6000 gvwr > 3750 lw ≤ 5750 lw	LDT > 6000 gvwr ≤ 3750 tw	LDT > 6000 gvwr > 3750 tw ≤ 5750 tw	LDT > 6000 gvwr > 5750 tw
LEV.....	0.00	0.00	0.00	0.00	0.00
ULEV.....	.20	.28	.29	.34	.45
ZEV.....	.43	.57	.71	.91	1.11

TABLE B-2.3.—CREDIT NEEDED IN LIEU OF SELLING CLEAN-FUEL VEHICLE

Vehicle emission category	LDV & LDT ≤ 6000 gvwr ≤ 3750 lw	LDT ≤ 6000 gvwr > 3750 lw ≤ 5750 lw	LDT > 6000 gvwr ≤ 3750 tw	LDT > 6000 gvwr > 3750 tw ≤ 5750 tw	LDT > 6000 gvwr > 5750 tw
LEV	1.00	1.26	0.71	0.91	1.11

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Federal Register

**Wednesday
September 25, 1991**

Part III

Department of Transportation

Federal Aviation Administration

14 CFR Part 91

**Transition to an All Stage 3 Fleet
Operating in the 48 Contiguous United
States and the District of Columbia; Final
Rule**

14 CFR Part 161

**Notice and Approval of Airport Noise
and Access Restrictions; Final Rule**

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 91

[Docket No. 26433; Amendment No. 91-225]

RIN 2120-AD96

Transition to an All Stage 3 Fleet Operating in the 48 Contiguous United States and the District of Columbia**AGENCY:** Federal Aviation Administration (FAA), DOT.**ACTION:** Final rule.

SUMMARY: This final rule amends the airplane operating rules to require a phased transition to an all Stage 3 fleet operating in the 48 contiguous United States and the District of Columbia by December 31, 1999. These revisions implement sections 9308 and 9309 of the Airport Noise and Capacity Act of 1990. This rule places a cap on the number of Stage 2 airplanes allowed to operate in the contiguous United States and provides for a continuing reduction in the population exposed to noise from Stage 2 airplanes.

EFFECTIVE DATE: September 25, 1991.**FOR FURTHER INFORMATION CONTACT:**

Mr. William Albee, Manager, Policy and Regulatory Division (AEE-300), Office of Environment and Energy, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, DC 20591, (202) 267-3553.

SUPPLEMENTARY INFORMATION:**Availability of NPRM's and Final Rule**

Any person may obtain a copy of this final rule by submitting a request to the Federal Aviation Administration, Office of Public Affairs, Attention: Public Information Center, APA-230, 800 Independence Avenue, SW., Washington, DC 20591, or by calling (202) 267-3484. Requests should be identified by the docket number of this rule. Persons interested in being placed on a mailing list for future notices of proposed rulemaking should also request a copy of Advisory Circular No. 11-2, Notice of Proposed Rulemaking Distribution System, which describes the application procedure.

Background

On November 5, 1990, Congress passed the Airport Noise and Capacity Act of 1990 (the statute). In the statute, Congress recognized that a national aviation noise policy was necessary because of the national and international nature of our aviation system.

A critical part of that national policy was set by Congress when it directed the elimination of Stage 2 airplanes operating in the contiguous United States. Specifically, the statute prohibits the operation of Stage 2 airplanes with a maximum weight of more than 75,000 pounds to or from an airport in the 48 contiguous United States and the District of Columbia after December 31, 1999. The statute provides limited authority to the Secretary of Transportation (the Secretary) to grant waivers to allow operation of a limited number of Stage 2 airplanes until December 31, 2003, if the Secretary finds that granting such waivers is in the public interest. The statute also requires the Secretary to establish a schedule of phased-in compliance with the statutory prohibition.

The Secretary delegated the authority to issue regulations implementing these statutory provisions to the Administrator of the Federal Aviation Administration (FAA).

Subsequently, the FAA published a Notice of Proposed Rulemaking (NPRM) (56 FR 8628, February 28, 1991), inviting all interested persons to submit written comments, data, views, and arguments on the proposed regulations. The comment period closed April 15, 1991.

The FAA held three public meetings to solicit further discussion of the proposed rules. These meetings were held in Washington, DC on March 5 and 6, in Chicago, IL on March 11 and 12, and in Seattle, WA on March 14 and 15, 1991. Transcripts of the proceedings of each meeting were placed in Docket No. 26433 and were considered as comments to this rulemaking.

The FAA received over 300 separate written comments to the NPRM representing a wide range of interests, including the aviation, environmental, and financial communities. In addition, numerous postcards responding to one particular issue were received.

Due to the large number of comments received, not every comment is addressed individually in the preamble, although all comments have been considered. Comments that address the same or related issues are grouped together. Proposals retained in the final rule generally are not discussed in detail so that the reader may focus on provisions that have changed from the proposed rule.

The requirements proposed in the NPRM were designed to provide several alternatives for the FAA to choose among to implement the Congressional mandate to impose an interim compliance schedule.

Changes in this final rule reflect the FAA's and many commenters' concerns

that the regulation provide as much flexibility as possible for airplane operators while at the same time achieve noise benefits for communities and individuals. To the extent possible, the final rule is intended to reduce the cost to the aviation industry for the interim compliance requirements and realize the benefits to affected parties, while maintaining air transportation service to all affected communities.

Final Rule—Overview

The Airport Noise and Capacity Act of 1990 states that after December 31, 1999, no person may operate a civil subsonic turbojet airplane certificated at more than 75,000 pounds in the contiguous United States unless that airplane meets Stage 3 noise levels. That statute also requires that a schedule of phased-in compliance be established.

Following its review of the comments, the FAA has determined that it is necessary to make a number of significant modifications to the compliance method proposed in the NPRM. These changes respond to suggestions made by commenters and, in general, are intended to increase the flexibility of Stage 2 airplane operators in finding the best means to comply with the transition to an all Stage 3 fleet required by this final rule. The following is a summary of the major changes incorporated in the final rule.

Additional Compliance Flexibility

The NPRM proposed to require a phaseout of Stage 2 airplanes with a maximum certificated weight of more than 75,000 pounds. As proposed, U.S. operators would reduce their Stage 2 fleets by 25 percent after December 31, 1994, 50 percent after December 31, 1996, and 75 percent after December 31, 1998. These reductions could take place through elimination or noise abatement retrofitting of Stage 2 airplanes. By statute, all Stage 2 operations in the United States must end by December 31, 1999, although U.S. air carriers are authorized to request waivers under specified conditions. The gradual phaseout of Stage 2 airplanes proposed in the NPRM would provide an increasing percentage of the fleet being composed of quieter Stage 3 airplanes, and a corresponding reduction in the number of people living in areas adversely affected by Stage 2 airplane noise.

A large percentage of air carriers, however, argued that the proposed rule should be modified to permit substantially greater flexibility in making the transition to an all-Stage 3 fleet. After further consideration of all

the comments and the economic condition of the aviation industry, the FAA is persuaded that greater flexibility is needed, particularly by carriers with limited current financial resources. Accordingly, this final rule incorporates three provisions to improve compliance flexibility, thereby reducing the compliance costs for airlines and other Stage 2 operators. These three provisions are discussed below.

Compliance Schedule—First and most important, operators will have the choice of complying with either the phaseout schedule proposed in the NPRM or an alternative based upon achieving a minimum number of Stage 3 airplanes to meet certain fleet mix percentages. Specifically, after December 31, 1994, each operator must either reduce the number of Stage 2 airplanes it operates by 25 percent or operate a fleet composed of not less than 55 percent Stage 3 airplanes. After December 31, 1996, each operator must either reduce its Stage 2 airplanes by 50 percent or operate a fleet composed of not less than 65 percent Stage 3 airplanes. After December 31, 1998, at least 75 percent of an operator's Stage 2 airplanes must be eliminated, or its overall fleet must be 75 percent Stage 3 airplanes. Some operators will find the NPRM's phaseout schedule less costly; others, particularly those that are growing, are likely to choose the fleet mix method that is included in the final rule. The FAA has found that this combination of methods will result in significant cost savings for the industry while still preserving environmental gains. Since the greatest environmental gains occur near the end of the phaseout period, there is no ultimate difference in the two approaches, and under both approaches, steady progress toward an all Stage 3 fleet is achieved throughout the decade.

Substantial flexibility is achieved by allowing each U.S. operator and foreign air carrier to determine the date it uses to establish its base level of Stage 2 airplanes from which to reduce, and to choose the Stage 2 airplanes that will continue to operate past each compliance date. These provisions allow for variances in fleet planning and for fleet composition that is affected by seasonal operations and such circumstances as the war in the Persian Gulf.

Carry-Forward Credits for Early Compliance—The final rule provides a carry-forward credit system for early compliance. An operator that exceeds the requirements of the rule at one of the earlier compliance dates may earn a credit for its own use at a later interim

compliance date. For example, if an operator would be required to eliminate 25 Stage 2 airplanes by December 31, 1994, but instead eliminates 35, it may claim a 10-airplane credit against its compliance with the 1996 or 1998 requirements. This will allow each operator to better manage the transition period in accordance with its individual fleet needs. Because no transfers of such credits between operators will be allowed, the concerns expressed in the comments that transfers of noise credits between operators will result in noise "dumping" in some areas of the country is eliminated. This is a limited version of the credit system contemplated in one part of the NPRM. No credits may be applied to the 1999 statutory deadline.

Waivers—The final rule provides that an operator may apply to the Secretary for a waiver from an interim compliance requirement when it can show that such a waiver is in the public interest. Waivers from interim compliance requirements may be granted based on technological or financial constraints that make compliance onerous for individual operators or that adversely affect competition or service to small communities. The final rule describes the standards for these waivers and for waivers from the final compliance date. Waivers from the final compliance date are expressly provided for by the statute.

Because the waivers would be granted upon individual request, the system is able to respond to the comments of airports and their neighbors that there be no broad exemption from the compliance requirements. Individually requested waivers should also reduce concerns that the proposed transfer of Stage 2 operating rights could have shifted the noise burden from one area of the country to another, or cause an anticompetitive transfer of resources from the "have nots" to the "haves." The transfer of Stage 2 operating rights was not adopted in the final rule.

Treatment of Foreign Air Carriers

The NPRM proposed that each U.S. operator would reduce the number of Stage 2 airplanes in its fleet, while each foreign air carrier would reduce the number of its Stage 2 operations to the United States, irrespective of the number of Stage 2 airplanes on its U.S. operations specifications. Some foreign air carriers objected, noting that this system discriminates against them. As discussed in detail in this document, the final rule incorporates as much equality of treatment as possible, including the requirement that both U.S. operators and foreign air carriers comply with the

transition by modifying the composition of their fleets.

Nonaddition Rule

The statutory nonaddition rule essentially prohibits the operation in the contiguous United States of any Stage 2 airplane that was purchased by a U.S. person after November 5, 1990, the date of the statute. The statutory nonaddition rule is codified into these regulations as a rule that describes those Stage 2 airplanes that are eligible for operation in the contiguous United States. All Stage 2 airplanes that were owned by U.S. parties on and since November 5, 1990, are eligible for operation. Foreign-owned Stage 2 airplanes that were leased to U.S. persons on September 25, 1991 may also be operated through the term of their leases. U.S.-owned airplanes that were leased to foreign airlines have 6 months to return to the U.S. after the expiration of those leases. Foreign air carriers and foreign operators may also continue to operate their owned or leased Stage 2 airplanes. All Stage 2 airplanes, of course, are subject to the transition rules.

Discussion of Comments—General

Part 36 Noise Levels

NPRM: The proposed rule stated noise criteria in terms of those found in 14 CFR part 36.

Comments: Several groups of citizens concerned about airplane noise state that not all Stage 3 airplanes are equal, in that some Stage 3 airplanes may be noisier than some Stage 2 airplanes during certain operations. A commenter requests that Stage 3 airplanes be further classified as to their noise output, and that the regulation contain quieter design standards for future airplane production and standards that measure the effect of noise on people. A group asserts that the use of the term "Stage 3 noise levels" in the statute means Stage 3 without any of the tradeoffs allowed in part 36, and that the proposed regulations are therefore less strict than the statute. One locality states that the FAA should insist on the accelerated development of Stage 3 airplane noise reduction equipment. Several operators comment that the final rule should include specific reference to part 36 as it existed on November 5, 1990, the date of the statute.

Final Rule: Section 9308(h)(2) of the statute defines "Stage 3 noise levels" as those set out in 14 CFR part 36 in effect on November 5, 1990. The definition of "Stage 3 noise levels" as it is used in these regulations reflects this provision

of the statute. Since the tradeoff provisions are part of part 36, the FAA does not agree that the statute is stricter than the regulation. Both the statute and the regulation cite part 36 as a whole.

Accordingly, the FAA cannot use any stricter standards than those contained in part 36 for this regulation, nor can it "distinguish" between Stage 3 airplanes that all meet the criteria of part 36. Further, part 36 is an aircraft certification standard. These regulations represent a change in the airplane operating rules, and it is beyond the scope of the NPRM to address requested changes to the noise certification standards of part 36.

While the FAA encourages and supports the development of noise reduction technology for all airplanes, it cannot mandate that such technology be produced by the aviation industry. As required by section 611 of the Federal Aviation Act (FAA) the FAA will continue to establish noise certification standards that are economically reasonable and technologically practicable.

Weight Criteria

NPRM: The NPRM proposed to limit the applicability of the phaseout and nonaddition requirements to civil subsonic turbojet airplanes with a maximum certificated weight of more than 75,000 pounds.

Comments: Several commenters request that the rule be expanded to include all Stage 2 airplanes regardless of certificated weight. These commenters state that a comprehensive noise policy must include and regulate all airplanes. They contend that smaller Stage 2 airplanes are part of the noise problem. Some commenters request that smaller Stage 2 airplanes remain exempt from the rule because they are a small part of the problem and because compliance with a phaseout would place undue economic hardship on the operators of these airplanes.

Final Rule: The statute set out the intent of Congress and describes the airplanes that are subject to the rule as those that have a maximum certificated weight of more than 75,000 pounds. This final rule reflects Congress' intent.

Violations

NPRM: The proposed rule restated the statutory provision:

Violations of (sections 9308 and 9309) and regulations issued to carry out such sections shall be subject to the same civil penalties and procedures as are provided by title IX of the Federal Aviation Act of 1958 for violations of title VI.

The NPRM stated that the final regulations would be enforced in

accordance with FAR part 13, Investigations and Enforcement Procedures.

Comment: A few commenters request that specific enforcement plans be included for enforcement of the nonaddition rule, including prohibiting aircraft purchased after November 5, 1990, from being registered in the United States.

Final Rule: The nonaddition rule does not prohibit a U.S. person from owning a Stage 2 airplane purchased from a non-U.S. person after November 5, 1990. The rule limits only the operation of such airplane in the contiguous United States. Section 501(b) of the FAA Act requires that if the owner of an aircraft meets certain criteria, that aircraft will be added to the U.S. registry; the statute did not amend the FAA Act to prohibit such registration. Registration alone does not permit these aircraft to operate in the United States; all airplanes are subject to the operating rules of part 91. The operational restrictions implementing the nonaddition rule have been added as § 91.855.

Comment: A commenter cites section 9307 of the statute as support for the fact that an airport operator may be denied federal funds and the eligibility to impose passenger facility charges if it imposes any noise restrictions not in compliance "with this subtitle." The commenter states that since the phaseout and nonaddition provisions of sections 9308 and 9309 are part of the same subtitle as section 9307, the imposition of any noise restrictions inconsistent with those provided in the final rule must be considered violations of the regulations and sanctioned accordingly.

Final Rule: The regulations adopted in this final rule are amendments to the aircraft operating rules of part 91 and are applicable to operators of Stage 2 airplanes, not airport proprietors. The FAA does not interpret the statute to mean that the imposition of a noise restriction by an airport proprietor is a violation of an aircraft operating rule. Airport operating restrictions imposed by airport proprietors must be considered under the regulations established under new part 161.

Comment: Several commenters request that a separate enforcement plan be included for the operating noise limit amendments, similar to that proposed for the airport noise restrictions in a separate rulemaking action. Other commenters ask that the specific penalties be included in the regulations.

Final Rule: No separate enforcement plan is necessary. The same actions that have been used to enforce the noise

regulations of part 91 subpart I will be used for the new regulations added to that subpart. The FAA aggressively enforced the operating noise limits in 1985 when Stage I airplanes were eliminated from operation, and anticipates a similar aggressive campaign to enforce the Stage 2 regulations. The FAA used the experience gained in 1985 in developing the new regulations.

The specific sanctions for violations of these regulations are set by section 901 of the FAA Act; that is, suspension of an operating certificate and a penalty of up to \$10,000 for each violation of the regulation. The application of these provisions is included in section 9308(e) of the statute, as quoted above.

Accordingly, the requirements of this final rule will be enforced in accordance with title IX of the FAA Act and part 13 of the FAR.

Entry and Nonaddition

NPRM: As addressed in the NPRM, the nonaddition rule, section 9309 of the statute, was effective on November 5, 1990. The intent of the statute, including some of the language of the statute, was retained in proposed § 91.805. The nonaddition rule limits the pool of Stage 2 airplanes over 75,000 pounds that are owned by U.S. persons and eligible to operate in the contiguous United States to the number that existed on November 5, 1990. The rule seeks to protect the interests of U.S. owners of those airplanes on that date, including those that are leased for operation outside the United States. The NPRM echoed many of the statutory provisions and stated them as proposed conditions for operation of Stage 2 airplanes in the contiguous United States on and after November 5, 1990.

The NPRM set out definitions for the words "owner" and "imported," with the latter tied to a change in ownership of a Stage 2 airplane from a non-U.S. person to a U.S. person. Importation was tied to U.S. ownership because the FAA has no way of determining the acquisition date of a foreign-owned Stage 2 airplane to decide whether it may be allowed to operate in the contiguous United States.

Proposed § 91.805 also sought to limit the operation of Stage 2 airplanes leased from non-U.S. persons. If U.S. operators were permitted to lease Stage 2 airplanes from foreign persons and operate them in the United States, the purposes of the nonaddition rule would be thwarted and noise from Stage 2 airplanes in the United States could increase dramatically.

Comment: Some commenters express concern with the FAA's interpretation of the statutory provisions regarding the return of leased Stage 2 airplanes. A commenter is concerned that a statement in the NPRM preamble regarding the return of leased airplanes interprets the statute to require that, to be eligible to return, the airplane must have been leased to a foreign air carrier on November 5, 1990. Another commenter requests clarification of the rule's provision with respect to leasing of U.S.-owned airplanes to foreign operators after November 5, 1990.

Final Rule: The FAA agrees with the comment that the language of the preamble of the NPRM inadvertently overstated the statute with regard to the November 5, 1990, date. The nonaddition rule uses November 5, 1990, as the test date only for ownership of a Stage 2 airplane and does not require that a U.S.-owned Stage 2 airplane had to have been leased to a foreign air carrier on that date to return.

Accordingly, the FAA interprets the statute and the regulation as allowing for the lease of U.S.-owned Stage 2 airplanes to foreign air carriers at any time. To gain valid return privileges under the regulation, the airplane must return to the United States within 6 months of the expiration of a foreign lease. This provision does not prevent subsequent leasing of an airplane to other foreign air carriers.

Furthermore, any airplane that is leased to a foreign person is subject to those provisions of §§ 91.861 through 91.867 if the airplane is operated in the contiguous United States.

Comment: An operator requests that the term "importer" be interpreted to include lessors and that the word "purchase" be interpreted to include the term "lease." The operator is concerned that there will not be enough airplanes available for lease if non-U.S. sources are foreclosed.

Final Rule: The FAA will not extend the meaning of the terms "import" and "purchase" to include leasing. To do so would dramatically alter the common understanding of the terms. The effect of such an interpretation would be to alter the intent of the nonaddition rule and allow an unacceptable increase in the level of Stage 2 noise. Proof has not been submitted that there is an insufficient supply of airplanes available from U.S. sources to accommodate leasing interests.

Comment: A commenter requests that the FAA clarify the definition of "importer," including a reference to a provision using the word "owner."

Final Rule: After further consideration, the FAA has decided that

it would be clearer to define the term "import." A definition of import is included in the new definitions section (§ 91.851), and the cross reference that caused the confusion is removed.

Comment: Several commenters express concern with the term "foreign air carrier" in the leased airplane return rule. They assert that Congress did not mean to limit the return of leased airplanes to those that are leased to "foreign air carriers" as defined by the FAA, but that the intent was to include airplanes leased to any foreign operator regardless of whether the operator qualifies as a foreign air carrier.

Final Rule: The FAA agrees that the FAA definition of "foreign air carrier" is an inappropriate interpretation of the legislative intent. If Congress intended the FAA meaning, it could have specified that meaning, as it did for other terms under section 9308 of the statute. Since the intent of the statute is to protect U.S. interests that existed on November 5, 1990, there is no apparent reason to limit the return provision to those Stage 2 airplanes that were leased to foreign air carriers that operate into the United States while excluding those that do not conduct such operations. The nature of the operation does not affect the status of the owning U.S. person's interest in its airplane. Accordingly, § 91.855(f)(2) has been revised to include the term *foreign airline*, meaning any foreign person that operates the subject airplane for compensation or hire.

Comment: An operator raises the concern that the NPRM provision that speaks to acquiring airplanes "from any U.S. operator" unnecessarily limits the field of available airplanes.

Final Rule: The FAA agrees that the proposed language regarding acquisitions from other U.S. operators unnecessarily limits the pool of available airplanes. The final rule language of § 91.855(b) has been revised to allow the operation of any U.S.-owned Stage 2 airplane.

Comment: A commenter requests that there be no "grace period" for the noise abatement retrofit equipment exemptions allowed by the statute.

Final Rule: The FAA agrees. Section 9309(b) of the statute does not allow for any grace period for noise abatement retrofit exemptions and the FAA has not taken any action inconsistent with this interpretation.

Comment: An operator requests that there be a limited exception to the nonaddition rule to allow for the transfer of airplanes from a U.S. carrier that is involved in Chapter 11 proceedings to another U.S. carrier. This commenter reads the proposed rule to

prohibit such transfers because it would increase the base level of the acquiring carrier.

Final Rule: No exception to the nonaddition rule is necessary to protect the transfer of U.S.-owned airplanes between a U.S. air carrier acting under bankruptcy protection and any other U.S. operator. It is possible that the proposed rule caused some confusion on this point. Final rule § 91.855(b) states that any U.S.-owned airplane may be operated in the contiguous United States and puts no restriction on transfers between U.S. persons. The final rule language of § 91.863 has also been revised to clarify the fact that transfers of airplanes may occur and be accounted for in the transferring and acquiring operators' base levels.

Comment: A commenter desires a clarification of the status of contractual assignments made before November 5, 1990.

Final Rule: If a U.S. person holds a valid contractual assignment for the purchase or lease of a Stage 2 airplane from a foreign person, and that assignment was made before November 5, 1990, the FAA will consider the U.S. person to be the owner of the airplane on November 5, 1990, for the purposes of this rule. Contractual assignments made by foreign persons after November 5, 1990, are valid only if the Stage 2 airplane is restricted to operations outside the contiguous United States. If, on November 5, 1990, the owner was a foreign person, then any change of ownership after that time would constitute an importation of a Stage 2 airplane by the acquiring U.S. person. Contractual assignments between U.S. persons are not affected because the transfer of airplanes between U.S. persons is not prohibited.

Comment: A commenter requests that the FAA interpret the term "contract executed" in section 9309(a)(2) of the statute to include executory contracts.

Final Rule: In the NPRM, the FAA indicated that it intended the terms "contract" and "written contract executed" to have the standard legal interpretation and meanings as accepted in the field of contract law. The meaning of the term "executed contract" is one that is complete, while an "executory contract" is one that is incomplete. The FAA will not adopt an interpretation that makes the word "incomplete" mean "complete."

The FAA interprets the inclusion of this provision in the statute as intended to cover a situation under which, on November 5, 1990, the contract for the purchase of an aircraft was complete except, perhaps, for actual delivery or

presence of the airplane in the United States. Any other circumstances concerning an executory contract for the purchase of a Stage 2 airplane that a contracting party thinks meet the intent of the nonaddition rule will be considered on an individual basis, as are all questions of ownership under part 47 of the FAR. The final rule continues to reflect the terms used in the statute and the standard legal interpretation anticipated in the NPRM.

Comment: An aircraft leasing organization reads the proposed rule as containing an ambiguity between proposed §§ 91.805(a)(5)(ii) and 91.805(a)(6). The commenter notes that if an airplane was validly purchased before November 5, 1990, and is leased to a foreign carrier, it is unclear whether the 6-month limit on returns of foreign-leased airplanes applies, or whether the unlimited return provision for purchased airplanes applies. The situation is complicated by the statute's use of the term "foreign air carrier."

Final Rule: An airplane leased by its U.S. owner to a foreign airline would have to be returned within 6 months of the end of the foreign lease to return validly under the rule. The change in the final rule from the term "foreign air carrier" to "foreign airline" means that only two situations are possible: A Stage 2 airplane that is leased to a foreign airline on or after November 5, 1990; or a Stage 2 airplane that is owned by a U.S. person, is not in the contiguous United States, and is not leased to a foreign airline. Where a Stage 2 airplane is or has been leased to a foreign airline, it has 6 months from the end of the lease to return; where a Stage 2 airplane has not been so leased, it may return at any time. Including the term "foreign airline" rather than "foreign air carrier" in the return provision for leased airplanes in the final rule removes any remaining confusion. When returned, leased airplanes are subject to the provisions of § 91.865.

Regarding the leasing of foreign airplanes, § 91.855(c) includes a provision that allows the operation of foreign-owned Stage 2 airplanes in the contiguous United States for the term of any lease that was legally binding before September 25, 1991, including any extensions allowed by the lease agreement in effect on that date. This is a clarification from the NPRM, which did not specify foreign-leased airplanes as one of the provisions of the operating rule.

Comment: A foreign airplane lessor interprets proposed § 91.805 to allow for the repeated short-term leases of foreign airplanes to U.S. operators. Some of these leases are for as short a time as 4

months. The commenter reads proposed § 91.805(a)(2) to mean that as long as the U.S. operator's base level included the leased Stage 2 airplanes when the base level was established, then subsequent leases are allowed (either of the same airplanes or other Stage 2 airplanes of that type).

Final Rule: The interpretation suggested by the commenter cannot be sustained under the nonaddition rule. Proposed § 91.805(a)(2) cannot fairly be read to allow the operation of foreign-owned airplanes once they leave the fleet of the leasing U.S. operator. Although the addition of foreign-owned leased airplanes to an operator's fleet is not an "import" under these regulations, it constitutes an increase in Stage 2 airplane operations in the contiguous United States by a method not provided for in the statute. The goal of the nonaddition rule was to halt the proliferation of Stage 2 airplane noise in the contiguous United States without unnecessarily damaging the interests of U.S. owners. Restricting the subsequent leasing of foreign-owned Stage 2 airplanes once the term of the original lease expires meets both concerns of the nonaddition provisions of the statute.

The commenter is correct that the provisions of proposed § 91.805(a) are to be read in the disjunctive, i.e., that an operator need satisfy only one of the provisions to operate a Stage 2 airplane. However, the intent of the statute and these regulations does not support the commenter's interpretation that proposed § 91.805(a)(2) applies to its circumstances and allows the subsequent lease of foreign-owned airplanes. The language of proposed § 91.805(a)(2) appears to be the source of some confusion. Section 91.855(b) of the final rule is stated in terms of U.S.-owned airplanes. Together with § 91.855(c), the two provisions account for all of the airplanes meant to be covered by proposed § 91.805(a)(2). The inclusion of § 91.855(c) in the final rule makes it clear that foreign-owned airplanes leased to U.S. operators are covered under that provision, and may not be read into other provisions of § 91.855.

Modification and Maintenance

NPRM: The nonaddition rule, section 9309 of the statute, provides for the operation of otherwise prohibited imported Stage 2 airplanes in the contiguous United States if those airplanes are operated for the purpose of obtaining modifications to meet Stage 3 noise levels. The FAA intends that such operations will be the subject of special flight authorizations requested pursuant to § 91.859 and a Special

Federal Aviation Regulation (SFAR). Until the SFAR is adopted, anyone wishing to take advantage of the statutory exemption may do so by applying to the Administrator for an exemption as provided in 14 CFR part 11. As it has for all previous authorizations regarding modifications to meet noise criteria, the FAA intends to require that applicants for special flight authorizations or exemptions provide proof that such modifications will be made. Generally, this has taken the form of a contract for noise abatement retrofit equipment that has been certificated for the subject airplane.

Final Rule: This exemption was proposed as § 91.805(c). No comments were received regarding this provision, and the exemption is adopted in the final rule as § 91.859.

NPRM: Although not explicitly stated, proposed § 91.805 would preclude the operation of a Stage 2 airplane into the contiguous United States for maintenance if the airplane did not meet one of the explicit provisions of that section. This would preclude the operation of Stage 2 airplanes imported into a point outside the contiguous United States from operating into the contiguous United States for maintenance.

Comment: Several commenters note that an interpretation of the statute that prohibits non-revenue operations for maintenance would have serious adverse consequences both for affected operators and the repair industry in the United States. A commenter notes that operations for modifications to Stage 3 may also call for other modifications or maintenance, and should be provided for in the regulations.

Final Rule: Upon further review, the FAA interprets the statute to allow the operation in the contiguous United States of an airplane imported into the noncontiguous United States after November 5, 1990, for purposes of maintenance. Section 9308(d) of the statute indicates that Stage 2 airplanes imported into the noncontiguous United States after November 5, 1990, may not be used to provide air transportation into the contiguous United States. Congress also specified that the definition of air transportation to be used is the one that exists in the FAA Act. As long as maintenance flights are conducted on a ferry (non-revenue) basis, they are not flights that provide air transportation. This situation is provided for in § 91.857(b) of the final rule. Maintenance flights will not be allowed after the statutory prohibition of December 31, 1999.

Base Level

NPRM: The NPRM proposed a concept referred to as a "base level" for operators of Stage 2 airplanes. The NPRM proposed that the base level would be the number of owned or leased Stage 2 airplanes that were listed on an operator's operations specifications on any one day in 1990. In addition, the base level would include those Stage 2 airplanes returned to service after lease to a foreign airline, as defined in the statute and proposed § 91.805(a)(5), and those Stage 2 airplanes purchased by an eligible entity, as defined in the statute and proposed § 91.805(a)(6).

The NPRM also proposed that base level of foreign air carriers would be the total number of Stage 2 operations it conducted into the contiguous United States during calendar year 1990.

Comment: Several commenters recommend that the final rule provide for Stage 2 airplanes purchased or leased during 1990 to be included in the base level of the acquiring operator. They point out that, in certain instances, purchased airplanes were not formally added to the operations specifications by year-end even though possession of those airplanes was taken in 1990.

Final Rule: To accommodate this concern, the final rule extends the cutoff date for determining the single day on which an operator determines its Stage 2 base level to July 1, 1991. This provides time for operators who contracted for the acquisition of Stage 2 airplanes near the date of the statute to have included such airplanes on its operations specifications.

Comment: Some commenters express concern that the 1-year period for selecting the base level day in the NPRM could provide a windfall, and recommend November 5, 1990, as the one date to establish base levels.

Final Rule: The FAA does not agree with the recommendation that November 5, 1990, be the date for establishing a base level; it would not take into account the effects of the Gulf War or peak season increases of many carriers' fleets each year. Any windfall effect of allowing an operator to choose the date will be minimal.

Comment: Many commenters perceive an inequity in basing the proposed phaseout on airplanes for U.S. operators and operations for foreign air carriers.

Final Rule: After further consideration, the FAA has decided that foreign operators' U.S. operations specifications could be used as the basis for gauging the number of airplanes operated by a foreign air carrier. Accordingly, the final rule provides for

an airplane-based transition for both U.S. operators and foreign air carriers.

Comment: A commenter suggests that the final rule include special provisions for foreign air carriers operating Stage 2 airplanes to the U.S. only part of the year in which the base level is to be determined.

Final Rule: The FAA does not agree. Basing the final rule compliance on airplanes rather than operations for all U.S. operators and foreign air carriers provides the same opportunities to foreign air carriers that it does for U.S. operators in similar circumstances. Extending the cutoff date for selecting a base level day to July 1, 1991, also provides additional latitude for growing operators to establish their base levels. Partial-year operations would not cause a different outcome under this system since each operator may choose its own date to establish its base level.

New Entrants

NPRM: The NPRM proposed a compliance alternative for new entrants. By definition, they would not have a base level established between the dates specified from which to reduce. The proposed rule specified a minimum percentage of a new entrant's airplanes that must be operated as Stage 3. This percentage is based on the timing of entry. No provision was offered for foreign new entrants.

Comment: A commenter suggests that new entrants should use the same base level concept as all other operators subject to the proposed phaseout.

Final Rule: The FAA finds it impossible to accommodate this comment. Base level determination is a function of reducing from a starting point established during a time frame at the beginning of the reduction period. New entrants, by definition, did not operate any Stage 2 airplanes during the base level establishment period, and thus cannot have base levels established under the same concept as operators that operated Stage 2 airplanes during that time.

Comment: A commenter recommends that the base level of a U.S. operator that transfers airplanes to a new entrant be reduced accordingly.

Final Rule: New entrants do not have base level and do not calculate their compliance with regard to that base level. However, if an operator with established base level chooses to transfer airplanes and base level to a new entrant, it may do so in accordance with § 91.863. The new entrant may hold that base level for subsequent sale with the corresponding number of Stage 2 airplanes. New entrants must meet the

compliance schedule in § 91.867, without regard to their base level holdings.

Comment: Based on the statute's direction to provide special consideration for new entrants, a commenter recommends that new entrants with only one or two Stage 2 airplanes be exempt from interim compliance requirements, and another commenter recommends an exemption of up to 30 airplanes.

Final Rule: The statute requires that consideration be given to the "impact on new entry into the airline industry." The final rule provides for new entrants to become established and grow using a fleet mix of Stage 2 and Stage 3 airplanes.

The percentages chosen for the new entrant fleet mix are the same as proposed in the NPRM and differ from those required for established operators. The new entrant percentages take into account the difficulties associated with new operations. To encourage increased competition, new entrants are allowed slightly more fleet mix flexibility through 1996.

Comment: Several commenters request that the final rule provide equal treatment for foreign new entrants and U.S. new entrants.

Final Rule: The FAA agrees. Accordingly, the final rule contains equivalent provisions for both foreign and U.S. new entrants.

Mergers

NPRM: The NPRM acknowledged that significant transfers of airplanes may occur during the compliance period, and the FAA solicited comments on how such transactions should be accommodated in the final rule, particularly with regard to base level adjustments.

Comment: Several commenters recommend that, in the event of a cessation of operations, corporate dissolution, or corporate restructuring where assets are sold, base level transfers should also occur to reflect the relative gains and losses of the parties to the airplane transfers.

Final Rule: Section 91.863 of the final rule includes appropriate provisions to accommodate such transactions. The base level transfer provisions afford operators the flexibility to transfer base level with Stage 2 airplanes. The rule accommodates the transfer of any number of Stage 2 airplanes.

Compliance Schedule

NPRM: Proposed § 91.807(d) presented the compliance schedule for the reduction of U.S. Stage 2 airplanes. Each operator would be required to

reduce the number of Stage 2 airplanes it operates to a level 25 percent below its base level after December 31, 1994, to a level 50 percent below its base level after December 31, 1996, and to a level 75 percent below its base level after December 31, 1998.

Each foreign air carrier would calculate its required percentage reduction in Stage 2 operations for each compliance date under the schedule provided in proposed § 91.807(d)(4).

Comment: A large number of commenters state that the compliance schedule proposed by the FAA is acceptable. Many other commenters state that the compliance schedule is either too aggressive or too slow. Another commenter expresses concern that the FAA's proposed schedule will severely affect small and economically fragile carriers, especially international air cargo operators. That commenter supports Schedule Four of the NPRM which calls for a 50 percent reduction in Stage 2 operations by December 31, 1996, but does not include a 1994 compliance date.

Final Rule: In this final rule, operators will have the choice of complying with either the phaseout schedule proposed in the NPRM or an alternative that incorporates the addition of Stage 3 airplanes to meet certain fleet mix percentages. This choice of options was selected after careful economic analysis of five alternatives. The FAA finds that the selected schedule, with its two options for compliance, will achieve an appropriate balance between environmental and economic concerns.

Comment: Several commenters state that some carriers may be forced to cut back service if they are unable to meet the compliance schedule and that those cutbacks will greatly affect small communities.

Final Rule: The FAA has concluded that the compliance schedule will not interfere with an operator's decision to provide service to small communities. While the majority of small communities are served by airplanes that are not subject to the Stage 2 reduction requirements, some are served by carriers that operate Stage 2 airplanes covered by this rule, such as DC-9's and Boeing 737's. Development of noise abatement retrofit equipment for many Stage 2 airplanes is ongoing. Currently, certificated noise abatement retrofit equipment is available for DC-9-10 and DC-9-30 airplanes, and the FAA anticipates that this rule will spur further development of noise abatement retrofit equipment. Such equipment for Boeing 737-100 and 737-200 airplanes, assuming no unexpected developments, is expected to be approved within 1

year. In addition, the new provision allowing waivers from interim compliance requirements is designed to account for delays in acquiring such equipment, especially where the delay would affect service to small communities. Finally, most small communities are offered service to connecting hubs by more than one U.S. operator. If service is discontinued by one carrier, the remaining operators would be expected to compete for the discontinued carrier's passengers.

Comment: Regarding the availability of Stage 3 noise abatement retrofit options, some commenters state that an operator's future fleet plans must consider all possible alternatives, and that the availability of Stage 3 noise abatement retrofit equipment could become a major problem.

Final Rule: At this time, certificated noise abatement retrofit equipment is available for several airplane types. Approximately 60% of the Stage 2 fleet has retrofit equipment type certificated to meet Stage 3 standards. Certification for another 30% is expected in the near term. According to manufacturers contacted by the FAA, most airplanes that will be affected by the transition to Stage 3 either have Stage 3 noise abatement retrofit options available now or have such equipment under development. There are more than 2,100 Stage 2 airplanes in the U.S. fleet powered by Pratt & Whitney JT8D engines. Pratt & Whitney is working with airframe manufacturers and others to develop Stage 3 retrofit equipment. As noted above, Stage 3 retrofit equipment is available for two DC-9 series airplanes, and type-certificated equipment is anticipated within the next 12 months for other DC-9 airplanes and Boeing 737-100 and 737-200 series airplanes. Pratt & Whitney anticipates that within 5 years there will be enough equipment to retrofit the worldwide fleet powered by Pratt & Whitney JT8D engines. This figure is well within the time frame established by the compliance schedule in the final rule.

Airplanes that were originally type-certificated to Stage 1 noise levels present more of a challenge in the development of Stage 3 equipment. However, noise abatement retrofit equipment is in development for DC-8 and Boeing 707 airplanes.

Comment: A number of commenters recommend a phaseout of operations rather than airplanes. Commenters concerned about noise levels note that one airplane may conduct a number of operations, thus creating more noise than accounted for as a single event.

Final Rule: The FAA has not adopted this recommendation. While the statute

refers to operations rather than numbers of airplanes, in the sense that it prohibits the operation of Stage 2 airplanes in the contiguous United States after 1999, the required transition to an all-Stage 3 fleet can be most readily controlled through changes in each operator's fleet. Monitoring the actual numbers of Stage 2 and Stage 3 operations would greatly increase the FAA's costs and diminish flexibility for operators.

The FAA's decision to promulgate an airplane-based transition is predicated on the expectation that a change in fleet composition will correlate closely with a change in numbers of Stage 2 operations. Indeed, if there is any significant difference, there is reason to think that Stage 2 operations may decline even more quickly than the numbers of Stage 2 airplanes. New Stage 3 airplanes offer significant advantages over older Stage 2 designs, wholly apart from their quieter operation. Therefore, as operators add Stage 3 airplanes to their fleets, these airplanes are likely to have relatively high utilization rates as compared to the operator's older Stage 2 airplanes.

Nevertheless, the FAA intends to monitor the transition period closely, and one of the factors that will be evaluated is whether changes in the airplanes listed on operator's operations specifications parallel changes in operations. If Stage 2 airplane operations do not decline as expected, the FAA may undertake further rulemaking under which operations rather than airplanes would form the basis for determining compliance with the transition.

Transferable Rights

NPRM: The NPRM proposed two fundamentally different approaches for structuring the phaseout of Stage 2 airplanes and asked for comments on each. The first approach, called Option 1, would have been a simple phaseout; each operator of Stage 2 airplanes would have been required to reduce its Stage 2 fleet by specific percentages on or before each of the three interim compliance dates: December 31, 1994, December 31, 1996, and December 31, 1998. As an example, under Option 1, if the largest number of Stage 2 airplanes for which a U.S. operator held operations specifications during any day between January 1, 1990, and December 31, 1990, was 40, the operator would need to reduce the number of Stage 2 airplanes it operates by 10 no later than December 31, 1994. If before that date the operator added to its base level 3 airplanes that were leased to foreign

carriers and one that was purchased, its base level would be increased to 44, and it would be authorized to operate a maximum of 33 Stage 2 airplanes after December 31, 1994.

Proposed Option 2 was a market-based system. In essence, it would have enabled an airline to be given credit for eliminating its Stage 2 airplanes, including modifying them to Stage 3 with noise abatement retrofit equipment, more quickly than required by the schedule. Under Option 2, an operator would have had the choice of reducing its Stage 2 airplanes exactly as described in Option 1 or attempting to acquire additional operating rights from another operator. Under the proposal, such rights would have been available only if the second operator already had exceeded its required reduction. That is, only "extra" reductions could have been transferred. In the above example, if the operator installed noise abatement retrofit equipment on 15 airplanes rather than 10 before 1994, Option 2 would have permitted it to sell 5 Stage 2 rights. If those rights were sold to a second operator that also had forty Stage 2 airplanes at the start, the second operator would have had to convert only 5 airplanes to Stage 3 by 1994. By statute, all Stage 2 airplanes have to be eliminated by December 31, 1999, regardless of the approach taken during the phaseout period. Since no rights would be generated without some operator moving faster than required, and since preexisting Stage 3 purchases or conversions would not count, Option 2 was intended to ensure that noise was still reduced according to the overall schedule. It was also intended to provide individual operators with increased flexibility in meeting the rules' deadlines. As no operator would ever have been forced to purchase an operating right, the FAA stated in the NPRM that transferability would be the preferred option, unless the comments showed that the desirable features of transferability are offset by other compelling public policy concerns.

Comment: A significant number of commenters oppose Option 2 as it was proposed. Their comments generally fall into three categories: (1) Transferable rights perpetuate noise; (2) Option 2 would not work as intended because rights would be hoarded or used as a competitive tool by the "haves" against the "have nots"; or (3) transferable rights are not an answer to the "real" problem, which is an expensive and inflexible phaseout at a time when the industry is in poor financial condition.

Almost without exception, individual commenters, citizen groups, airports,

and municipalities favor Option 1. Generally, those comments are based on the premise that the flexibility provided by transferable rights would work to the detriment of airport neighbors by lessening noise reduction. For example, some operators will, for their own reasons, convert to Stage 3 faster than required, even without regulations. If the faster conversion is allowed to generate transferable rights, however, opponents of transferability argue that the extra noise benefit from early conversion will be lost because some other operator will use those rights to extend the operating life of another Stage 2 airplane. A similar common position is that the use of transferable rights could lead to excessive and unfair use of Stage 2 airplanes at the airports served by the purchasers of credits.

Air carriers are not in agreement as to the best method of handling transferable rights, with only the largest carriers supporting Option 2 in its present form. Another carrier favors a limited version of transferable rights, in which an individual carrier could take credits earned before an earlier interim compliance date and use them internally to meet future interim requirements. Under this commenter's proposal, transfers would not be permitted among operators. Airplane owners/lessors favor a market mechanism and transferable rights, but are concerned with who would have those rights—operators/lessees or owners/lessors. The owners/lessors have put forth varying proposals that are intended to protect their interests. Before the NPRM was published, the FAA received a proposal for a single phaseout requirement that would credit all Stage 2 airplanes with 6 operating years (roughly the average of the three phaseout dates). This commenter called its proposal Option 3. Airplane owners would then be able to use all 6 years for each plane and convert fully to Stage 3 about 1997, or they could retire or convert some airplanes early and sell or use the remaining operating rights for other airplanes. The key element of this proposal was that owners rather than operators would have these rights and the benefits of selling them. A write-in campaign was organized among investors in airplane leasing programs. As a result, the docket contains numerous postcards favoring this proposal.

Subsequently, the commenter that proposed Option 3 joined with other airplane lessors and several carriers in a different proposal. A joint comment submission from owners, lessors, a financial institution, and carriers (the

"joint submission") reemphasized flexibility as the goal, and included three basic elements: (1) Transferable rights to be created for early phaseout of Stage 2 airplanes, using a system of operating years similar to the original commenter's proposal, but with rights accruing to operators; (2) additional credit for early acquisitions of Stage 3 airplanes, such that a carrier that buys a Stage 3 airplane in 1993 rather than 1994 would earn a transferable right worth 1 operating year, which could be sold or used to support 1 extra year of operation for a Stage 2 airplane; and (3) limited additional transferable rights for owners. While an operator that converts to Stage 3 earlier than required would get 1 year's credit for each year prior to the deadline, nonoperator owners that install noise abatement retrofit equipment or retire their Stage 2 airplanes early would earn a maximum of 2 credit years for the conversion.

The joint submission thus raises additional issues that go beyond the scope of transferable rights: Whether non-operators should have rights or duties during the compliance period and whether adding new Stage 3 airplanes should accrue additional credit. These other issues are addressed below.

Final Rule: The FAA has decided not to adopt Option 2 because the comments that it generated contained substantial opposition to this option and very little support. The FAA included Option 2 in the NPRM with the view toward providing flexibility and facilitating compliance with the proposed phaseout, particularly for those airlines with limited current financial resources (56 FR 8633). However, no currently operating airline facing such circumstances supports Option 2 as proposed.

The FAA is aware of the joint submission request for additional flexibility. The request to permit a fleet mix method of compliance has been incorporated in the final rule and is discussed elsewhere in this document.

The FAA is unwilling to accept the joint submission request to switch from a reduction method based on the number of Stage 2 airplanes eliminated to one based primarily on the year of elimination. Under this proposal, an airline would be free to designate each of its airplanes as scheduled for reduction in a particular year, with credits to be generated for eliminating a particular Stage 2 airplane or adding an extra Stage 3 airplane earlier than the operator's chosen schedule date. For example, if an operator's maximum number of Stage 2 airplanes on any one day during January 1, 1990, through July

1, 1991, was 200, to comply with the phaseout option, the operator would designate 50 airplanes to be phased out in 1994, 50 in 1996, and 50 in 1998.

Thus, if the operator eliminated the 50 airplanes designated for 1994 in that year, it would be in compliance but would generate no credits. If the operator instead eliminated the 50 airplanes designated for 1999 elimination, the operator would earn 250 operating years of credits, 50 each for 1995, 1996, 1997, 1998, and 1999. The joint submission contains a similar credit-year proposal for operators that choose to comply with the fleet mix option. Under the joint submission proposal, these credit-years could be used internally or sold to others. The problem is that the same number of airplanes, 50, would be eliminated in 1994, and it would be solely up to the operator as to whether the action constituted an "early" reduction.

The proposal for airplane owners to gain credits in addition to those given to operators poses a somewhat different problem. The joint submission asks that the rule give 2 years credit for each leased Stage 2 airplane eliminated or modified to meet Stage 3 standards by a non-operator owner. These credits would be in addition to those accruing to the operator. As a result, leased airplanes would be counted twice for the purpose of credits when they are eliminated or converted to Stage 3, while airplanes operated by their owners would count only once. The FAA considers this approach inequitable and discriminatory. In addition, it would lead to an unacceptable perpetuation of Stage 2 airplane noise, inconsistent with the reduction mandated by the statute.

Accordingly, the final rule allows an operator to choose between a modified version of Option 1 (§ 91.865(b)) and a fleet mix as an alternative method of compliance (§ 91.865(d)). The final rule also contains one aspect of Option 2: Operators that exceed the requirements on an interim compliance date will be authorized to carry forward the extra compliance to a later interim compliance date. These credits may be used by the operator at a subsequent interim compliance date, but the credits may not be transferred to other operators.

The FAA also recognizes that the financial condition of much of the airline industry means that it may be difficult for some individual operators to comply with the interim compliance schedule. Therefore, as discussed in the waiver section, waivers from interim compliance requirements will be granted in specific cases where there is an adequate showing that compliance is

financially onerous, physically impossible, technologically infeasible, or that it would have an adverse effect on competition or service to small communities. A system of waivers from interim compliance requirements should reduce substantially the regulatory burden of this rule and should meet the needs of operators for flexibility. At the same time, this waiver system is able to respond to the requests of airports and their neighbors that there be no broad exemption from the compliance requirements. Waivers should also reduce concerns that the transfer of operating rights could shift the noise burden from one section of the country to another, or cause an anticompetitive transfer of resources from the "have nots" to the "haves."

Phasein of Stage 3 Airplanes as an Alternative to the Phaseout of Stage 2 Airplanes

NPRM: The FAA discussed an alternative that would allow operators to meet interim goals through increases in Stage 3 airplanes as well as reductions in Stage 2 airplanes.

Comment: Several commenters favor the adoption of a phasein of Stage 3 airplanes rather than a phaseout of Stage 2 airplanes. These commenters claim that this approach would not only enable carriers to increase their fleet capacity by giving credit for the acquisition of Stage 3 airplanes, but that this is also the intent of the statute. Some carriers claim they will face additional economic hardship if they are unable to receive credit for adding Stage 3 capacity to their fleets. The joint submission favors this fleet mix approach and presents a percentage-based schedule for compliance.

Some airport authorities express partial support for this approach because they claim that the phaseout of Stage 2 airplanes does not address situations at individual airports and that service to smaller communities might be affected.

Similarly, some airport authorities and associations support the concept of a fleet mix by noting that much of the conversion depends on the availability of noise abatement retrofit equipment. These commenters claim that the NPRM overestimates the availability of such equipment, making the financial estimates unrealistic. Many commenters express concern that this approach would add rather than reduce noise, and a carrier comments that such an approach would provide no benefit for small carriers that have no Stage 3 airplanes.

Final Rule: The FAA has decided that the current financial condition of the

industry warrants the adoption of a final rule that allows each operator the flexibility to choose to reduce the number of airplanes in its base level by a specified percentage, as was proposed in the NPRM, or to acquire and/or reduce airplanes as necessary to achieve a fleet mix of Stage 2 and Stage 3 airplanes that meets the percentages given in the regulation.

To maximize flexibility, operators are allowed to choose the method that best suits its circumstances at each compliance date. The schedule for an operator choosing to eliminate Stage 2 airplanes is the same as that proposed in the NPRM: 25 percent reduction by the end of 1994, 50 percent reduction by the end of 1996, and 75 percent reduction by the end of 1998.

The schedule for an operator that chooses the fleet mix option is based on the comments and considerable analysis of the costs and benefits associated with fleet mix percentages on the compliance dates. The FAA considered the equipment delivery positions of many operators, the current availability of noise abatement retrofit equipment and the status of such equipment under development, projected growth of operators, financial resources of operators, and the effect on competition in the industry. These are discussed more fully elsewhere in this document. The schedule requires that operators choosing this option achieve a fleet mix that includes at least 55 percent Stage 3 airplanes after December 31, 1994, 65 percent Stage 3 airplanes after December 31, 1996, and 75 percent Stage 3 airplanes after December 31, 1998.

The Stage 2 reductions from base level and the fleet mix options have one fundamental difference. Base level is not relevant to the fleet mix method. As such, the final rule incorporates a provision indicating that the FAA will scrutinize transactions involving transfers of base level to determine whether they have been accomplished solely to show compliance with § 91.865. While the transactions themselves would never be at issue, the transactions will not be valid for compliance if they reflect no real increase or reduction of Stage 2 airplanes by the parties to the transactions. An example of the situations anticipated by this provision is set forth in the section-by-section analysis of § 91.863(d).

The final rule also incorporates the request by some operators to allow additional compliance at the earlier compliance date to count as compliance later. This carry-forward compliance credit can be accrued by operators that

choose to achieve compliance by phasing out Stage 2 airplanes. Later use of carry-forward compliance credit is discussed in full in the section-by-section analysis of § 91.869.

The FAA has not adopted the requested system under which Stage 2 elimination would be based on airplane life-years of credit, or the system that accrues extra credit based on the year of elimination. Those concepts are addressed more fully in the disposition of comments on transferable rights in this document.

International Issues

NPRM: The NPRM preamble includes foreign air carriers in the section-by-section discussion of the proposed rule language concerning base level and compliance schedules.

Most of the comments received on the international issues focus on differences between a resolution adopted by the International Civil Aviation Organization (ICAO) and the proposed rule.

Comment: ICAO encourages member States to begin Stage 2 phaseouts no sooner than April 1, 1995.

Final Rule: The U.S. implementation of a compliance schedule must begin by statute on the date of enactment, November 5, 1990. However, the first compliance date has been set as December 31, 1994, only 3 months before the ICAO suggestion.

Comment: ICAO urges member States to set final compliance dates no earlier than April 1, 2002.

Final Rule: The U.S. final compliance date of December 31, 1999, is mandated by section 9308 of the statute and is so reflected in the final rule.

Comment: ICAO encourages exempting wide-body airplanes with high bypass ratio engines from the interim compliance schedule.

Final Rule: The statute makes no provision for such exemptions and the final rule treats all Stage 2 airplanes over 75,000 pounds as equal.

Comment: ICAO uses an airplane life cycle of 25 years as the standard for Stage 2 airplane retirement.

Final Rule: While the FAA uses the 25-year useful life standard in its economic analysis, it considers the chronological age of an airplane to be an inappropriate standard for elimination. The decision as to which airplanes an operator removes from service in order to comply with this rule is solely that of the individual operator.

Comment: Several comments from foreign airline representatives request that foreign air carrier compliance be based on airplanes rather than operations.

Final Rule: After review of these comments and verification of enforcement considerations, the final rule reflects this change. The FAA has determined that a reduction of foreign Stage 2 airplanes is feasible by removing them from foreign air carriers' U.S. operations specifications.

Comment: Several commenters focus on the need for consistency with the Stage 2 reduction policies of ICAO and general agreement with the Chicago Convention. An international airline association, individual airlines, airport operators, and aviation regulatory authorities all refer to specific terms of ICAO Resolution A28-3, which was ratified on October 26, 1990.

Final Rule: The FAA recognizes the importance of a worldwide policy and the efforts of ICAO. The FAA has determined that by basing the compliance on airplanes, rather than operations, variations between the U.S. and ICAO policies will be minimized. The FAA does not find that the other differences can be accommodated under the statute.

Comment: A commenter proposes that the final rule should exempt foreign operations from interim compliance, on the presumption that the noise benefits associated with the elimination of a relatively low number of foreign operations do not justify the economic costs to the foreign operators.

Final Rule: The FAA disagrees. Section 9308 of the statute requires that a compliance schedule be established to achieve the prohibition of section 9308(a) which states:

After December 31, 1999, no person may operate to or from an airport in the United States any civil subsonic turbojet aircraft with a maximum weight of more than 75,000 pounds unless such aircraft complies with the Stage 3 noise levels

Further, because foreign operations are concentrated at a limited number of U.S. airports, noise benefits from reduced foreign operations on the interim compliance dates will be considerable for nearby communities.

Comment: Several comments were received regarding the NPRM proposal that foreign operators with two or fewer Stage 2 airplanes on U.S. operations specifications be exempt from the interim compliance requirements. A commenter states that there is no basis for providing foreign air carriers with privileges not provided to U.S. operators. Also, the commenter explains that the two or fewer airplane measure is inconsistent with the NPRM approach that bases the Stage 2 phaseout for foreign carriers on the number of operations conducted. Another

commenter suggests that the FAA expand the exemption from the interim compliance requirements for all foreign operators that had five or fewer Stage 2 airplanes, rather than the two airplanes proposed. This commenter states that by changing the cutoff point under this exemption from two airplanes to five, the public interest objectives of preserving economically beneficial international air service and avoiding undue restriction of the competitive service offered by small- and medium-sized international carriers can be achieved to an even greater degree. Another commenter suggests that an alternative be added that would also exempt an operator from the interim compliance requirements whenever its operations are limited to no more than one daily round trip flight. The commenter states that seven weekly operations could in fact produce much less noise than would multi-frequency operations conducted with just two airplanes in, for example, a transborder market.

Final Rule: As stated previously, the compliance schedule for U.S. operators and foreign air carriers will be based on airplanes; the provision exempting foreign operators with two or fewer airplanes is no longer applicable. In the final rule, the compliance schedule and the airplane-based approach spread the burden among all operators and provide for continuing noise abatement.

Comment: Many commenters request that the waiver from the final compliance date be extended to include foreign air carriers. A commenter states that the foreign waiver issue, as handled in the NPRM, is in clear contradiction to the ICAO Chicago Convention, Articles 11 and 15. This commenter acknowledges that U.S. legislative action may be required to extend waivers from the final compliance date to foreign operators. Community groups support denial of waivers from the December 31, 1999, deadline for foreign air carriers.

Final Rule: Waivers from the final compliance date are limited to U.S. air carriers by the statute. As to the issue of U.S. international obligations, the FAA recognizes the concerns raised by commenters concerning various provisions of this rule. It is the intention of the United States Government to resolve these concerns in a manner consistent with the international obligations of the United States.

The final rule allows foreign air carriers to petition for a waiver from any interim compliance requirement. Such petitions would have to be accompanied by the same financial or

other supporting data that would be required of a U.S. air carrier.

Owner-based Compliance Versus Operator-based Compliance

NPRM: In the proposed rule, the FAA acknowledged that unsolicited comments were received before the publication of the NPRM, including a request from airplane lessors that the FAA protect owners' interests during the phaseout. Specifically, they express concern that focusing the phaseout methodology on the operators of Stage 2 airplanes rather than on owners could lead to results they consider inequitable. The FAA asked for comments on the appropriate roles and responsibilities for operators and lessors of leased airplanes.

Comment: The unsolicited comments contain the Option 3 proposal, explained above in the transferable rights comment disposition, which many commenters refer to as if it had been part of the proposed rule. A postcard campaign to the docket in support of Option 3 was initiated during the comment period. Later in the comment period, Option 3 was supplanted by a joint submission from 13 parties, including the original proposers of Option 3. The new submission significantly modified the original proposal and is discussed below.

Many of the commenters suggest that the operator-based approach is too limited and is inherently unfair to owners or lessors. These commenters assert that not allowing the owners/lessors of airplanes to have a role in the compliance process would have a negative impact on the economic health and competitiveness of those operators that lease large percentages of their fleets. These same commenters also suggest that allowing the operators to make the decisions concerning which airplanes to eliminate puts the leasing companies in the position of having their business destiny in the hands of others. Some commenters express concern that the economic analysis in the NPRM did not include the economic impact of the proposed phaseout on the leasing industry. The non-operator commenters contend that owners/lessors should receive the same consideration as operators in the final rule, and that a final rule cannot be legally issued unless the FAA has ensured that it is equitable.

Some comments propose that the leasing companies and owners—and not the operators—be the parties exclusively responsible for compliance with the statute and the rule because their interests will not otherwise be protected. They contend that operators merely perform the mechanical function

of operating the airplane and that the operators have no legal obligation to purchase and install noise abatement retrofit equipment on leased airplanes.

Comments were also received supporting the concept of operator-based compliance. Several commenters state that the operators should be solely responsible for compliance because the statute specifically refers to the operations of airplanes. These commenters assert that the owners/lessors will be able to protect their interests during the compliance period. They are also not persuaded that Option 3 would, in fact, provide the stated benefits or that it can be administered readily. A commenter specifically states that leasing companies should receive no other benefits from this rulemaking that would further increase the operating costs of carriers.

The joint submission asserts that the FAA violated section 9308(c) of the statute, which requires the FAA to consider competition and the ability to achieve capacity growth, by ignoring the existence and interests of the leasing industry. It asserts that continuing the current level of competition in the airline industry depends on the existence of a strong, healthy leasing industry. These commenters also assert that because the FAA had failed to consider the leasing industry, the economic analysis was "fatally flawed" and must be substantially revised before the final rule is issued. They propose that a limited non-operator credit system be included in the final rule. Such a system would allow non-operator owners to generate a limited number of credits for Stage 2 airplanes registered in their name that they certify to the FAA have been converted to meet Stage 3 requirements.

Final Rule: The final rule specifies that operators are the parties responsible for complying with the statute and the regulation. This decision is based on the FAA's interpretation of the statute and the history of part 91 and other FAA rules.

In setting the prohibition on the operation of Stage 2 airplanes, the statute specifically focuses on the operation by any person rather than on the ownership of an airplane. Nowhere does the statute prohibit the ownership of Stage 2 airplanes nor would such action be consistent with the underlying purpose of the statute—the lessening of noise through the gradual elimination of Stage 2 operations. The final rule language tracks the statute by regulating Stage 2 operators.

The final rule language is also consistent with the manner in which the FAA has handled all its rules dealing

with the operations of aircraft. Such rules are imposed on the operator of the aircraft rather than the owner for several reasons. First, the FAA has a direct relationship and regular contact with the operator. Second, the operator is an easily defined entity. Both of these facts support the third reason for adoption of an operator-based rule which is the enforceability of the rule. Airplane ownership can be a highly complex financial arrangement involving individuals, groups of individuals, or corporations with which the FAA has little or no regular contact, and over which the FAA has limited direct authority. Finally, there would be additional costs for monitoring a complex, non-operator rule given the fact that there would be a significantly larger pool of individuals subject to the rule.

Another basis for the FAA's decision not to adopt an owner-based final rule is the questions resulting from the lack of information in this area. The FAA is not prepared to determine who is the owner for purposes of this rule if there is a dispute between parties. Furthermore, it is practically impossible for the FAA to verify from publicly available or commenter-provided information the economic harm that the commenters allege will result from this operator-based rule. It also is practically impossible for the FAA to determine the owner/investor configuration for each airplane, know their financial circumstances, and determine how those financial circumstances would be affected.

The FAA is also convinced that the symbiotic relationship between owners and operators will act to balance the interests of each in the negotiation of airplane leases. The nonaddition rule prohibition against new leases of foreign-owned Stage 2 airplanes also protects the market for U.S.-owned and leased airplanes.

Finally, the FAA is concerned that if such a rule were adopted with the above enforcement weaknesses, local airports would question its efficacy and take more aggressive steps to impose their own local restrictions. In addition, since such local rules would be directed toward operators, it would ensure significant differences between federal and local rules and defeat any alleged protection to the owners offered by the adoption of such a final rule on a federal level.

Waivers

Comments concerning waivers fell into two categories. Several commenters request that the final rule include

provisions for waivers from the interim compliance requirements of the phaseout schedule. Other comments concerned the FAA's statements in the preamble regarding waivers from the compliance date that are provided for by the statute. The two waiver provisions are discussed separately below.

Waivers From Interim Compliance Requirements

NPRM: The proposed rule did not include any separate provisions for waivers from the interim compliance requirements.

Comment: Several commenters note that it is unrealistic to presume that there will not be circumstances that prevent an operator from complying fully with an interim compliance requirement. Commenters request that a separate provision be included in the final rule and that the criteria under which such waivers will be granted be stated clearly.

Final Rule: The FAA agrees. The lack of a separate waiver provision in the NPRM did not mean that the FAA did not foresee circumstances under which relief from the interim requirements might be in the public interest. The FAA is persuaded, however, that orderly compliance with this rule warrants its own waiver procedure with application and approved criteria defined in advance. Section 91.871 has been added to include such provisions.

The existence of a waiver provision should not be viewed as an automatic entitlement to relief from an interim compliance requirement. Waivers will be granted only after consideration of these and other criteria: (1) The balance sheet and cash flow position of the applicant; (2) the current composition of the applicant's fleet; (3) the applicant's plans and activities for fleet modification, including its good faith efforts to comply with the transition rules; (4) the applicant's delivery position with regard to new airplanes or noise abatement equipment; and (5) the effect on competition if such a waiver is granted. It is anticipated that waivers will be granted if an operator is able to show that compliance with the interim requirement is financially onerous given its economic status when compliance is due, physically impossible because of equipment availability and delivery schedules, infeasible because noise reduction technology has not been certificated for the airplanes under consideration for a waiver, or that it would have an adverse effect on competition or on service to small communities.

All applications will be considered under the standards of good faith efforts of the operator to achieve compliance with the interim requirements and whether a grant of the waiver would be in the public interest. Interim compliance waivers will be granted only for the period of time necessary for compliance by the individual operator, and in no case beyond the next interim compliance date. To gain waiver relief from a later interim compliance date, an operator would have to reapply.

Comment: Many groups of noise-affected citizens request that any application for waivers be made subject to public process.

Final Rule: The FAA agrees. The process of granting waivers is an integral part of rulemaking and the participation of the public is inherent. To this end, the final rule contains a provision that a notice of an application for a waiver from any interim compliance requirement will be published in the *Federal Register* and be open for public comment. Unless the Secretary determines otherwise, a minimum of 14 days will be given for public comment.

Waivers from the Final Compliance Date

NPRM: The NPRM provided for waivers from the final compliance date in accordance with section 9308(b) of the statute. The statute limits the availability of such waivers to U.S. air carriers, and sets out criteria to be followed, including the requirement that any grant of a waiver must be in the public interest. The statute also requires that in evaluating a request for a waiver from the final compliance date, the Secretary consider the effect of granting a waiver on competition in the air carrier industry and on small community air service. Finally, the statute provides for the conditions and time period under which a U.S. air carrier may file for such a waiver.

Comment: Several commenters object to the provision allowing waivers from the final compliance date, and state that it should be deleted and perhaps replaced with some other incentive. Commenters were in general agreement that some standards for the waivers should be defined, and some request a definition of public interest.

An operator reads the existence of the waiver provision in the statute to mean that waivers should be automatic if the statutory criteria are met. Another commenter considers the FAA's interpretation too restrictive, indicating that the waiver should be automatic and negotiable with the FAA. An organization of operators states that the

waiver provision should not go beyond the words of the statute. Some members of Congress state that the NPRM's expectation that waivers will be granted only in exceptional circumstances (as where a carrier indicates that compliance with a final phaseout date would wreak "financial havoc") is contrary to Congressional intent and unnecessarily burdensome.

A group of citizens concerned about airplane noise states that the waiver should be strictly limited, and that to read the statute otherwise would inhibit the effectiveness of any phaseout. Another group states that an unrestricted 4-year waiver from a 7-year phaseout is excessive. The noise-affected public generally urges the FAA to caution operators that the December 31, 1999, phaseout date remains as the statutory mandate, and that the operators should not tailor their plans on the basis of a presumed waiver and an "actual" phaseout date of 2003. A group is concerned that the problems experienced during the phaseout of Stage 1 airplanes will be repeated, and suggests that every applicant for a waiver be required to submit a cost-benefit analysis to support its request. A locality requests that waiver applicants be held to the same burden of proof imposed on airport operators that wish to impose operating restrictions, which was proposed under a separate rulemaking. Other commenters request that the waiver provision restrict operations at airports with more progressive noise goals, that the number of Stage 2 operations permitted under waivers be restricted, and that the approval of airports served by a carrier seeking a waiver be a condition to a grant. Another commenter suggests that the application date for a waiver be moved to January 1, 1995.

Most of the noise-affected citizens and airports state that the waiver process should be public, with notice of requests for waivers published and up to 180 days provided for public comment.

Final Rule: The waiver from the final compliance date is statutory and must be a part of the final rule. The FAA has not changed its basic position from the NPRM that waivers from the final compliance date will not be automatic. The FAA agrees that operators should be cautioned to plan for the final compliance date; if the Congress did not intend the cessation of Stage 2 operations in the contiguous United States by December 31, 1999, that provision would not appear in the statute. The FAA intends the statutory waiver provision to be a relief valve against unforeseen economic and supply

circumstances to be determined based on the circumstances of the individual operators at the time. "Automatic" waivers cannot provide for unique circumstances. Similarly, the length of a waiver from the final compliance date will be determined by the circumstances of the individual applicant. The December 31, 2003, statutory waiver deadline is an outside limit, not a 4-year extension that has no basis in the individual circumstances that warrant the grant of a waiver.

The FAA agrees that more definitive waiver criteria are needed if compliance is to be effected in an orderly fashion. The statute indicates that a waiver may be granted only if the Secretary finds that a grant would be in the public interest. No attempt will be made to define "public interest" here. The Department of Transportation and the FAA are familiar with the public interest standard as a measure of evaluating a request for an exemption or waiver from many regulations and recognize that a critical component of the standard is based on the circumstances that exist at the time a waiver is requested. The FAA will not at this time attempt to define the economic or logistical circumstances that would affect the public interest standard as it will need to be applied when an air carrier applies for a waiver from the final compliance date.

In considering the requests for waivers from interim compliance requirements, the Secretary was able to identify circumstances under which those waivers would most likely be granted, and the Secretary intends to include similar criteria in considering requests for waivers from the final compliance date. Were wholesale grants of waivers anticipated by the statute, it is doubtful that the statute would so specifically direct the Secretary's attention to the effect of a grant on competition in the industry as one of the two waiver considerations that the Secretary must address, for competition would not be affected if every carrier could get a waiver once the 85 percent threshold were met.

The FAA agrees that, as with waivers from the interim compliance requirements, the public should be notified of an air carrier's application for a waiver from the final compliance date and be given an opportunity to comment. The statute makes no provision, however, for the approval of waivers by any airport served by an individual carrier, nor the imposition of a burden of proof on applicants similar to that proposed elsewhere for airport operators that wish to adopt operating restrictions. The FAA cannot extend the

statute to include such provisions. The commenter that suggests moving the application date for waivers provided no explanation as to how this would facilitate a reduction of Stage 2 airplanes. Moreover, the application date is set by the statute and cannot be changed by the FAA.

Stage 3 Percentage Provision

NPRM: The proposed rule contained a provision that would allow an operator to discontinue compliance with the phaseout requirements once the operator achieved and maintained a fleet that consisted of 85 percent Stage 3 airplanes. That provision was proposed as § 91.805(d)(3).

Comments: An operator states that it does not understand the NPRM provision that addresses the applicability of the rule to operators that have achieved a 85 percent Stage 3 fleet mix. Other commenters contend that the allowance would serve only the largest, financially healthy carriers and allow them to operate as many Stage 2 airplanes as they want as long as a sufficient number of Stage 3 airplanes were added to retain the fleet mix.

Final Rule: This provision is removed from the final rule. It was originally proposed so that no operator that was phasing out Stage 2 airplanes would be forced to phase out more than necessary to meet the statutory requirement to apply for a waiver of the final compliance date. The provision had no time expectation, as thought by the commenting operator.

The adoption of the optional fleet mix method of compliance obviates the need for this provision. For those operators that use the Stage 2 reduction method to comply, the waiver provisions included in the final rule are available to address the circumstances of operators on a case-by-case basis.

Annual Progress Reports

NPRM: The proposed rule required carriers to submit to the FAA annual phaseout progress reports within 45 days after the end of each calendar year. The reports were to include the airplanes included in the carrier's base level, any additions made to the base level, any Stage 2 airplanes acquired from another U.S. operator, the carrier's progress towards compliance with the interim schedule and the final compliance date, and the carrier's current plan to meet the interim compliance schedule and the final compliance date. Similar information would be required from foreign air carriers.

Comment: The commenters' primary concern is the confidentiality of the

reports. Many commenters state that the information submitted will be proprietary. These commenters suggest that the reports be held for 48 months and not be subject to Freedom Of Information Act requests or otherwise be made available to the public.

Final Rule: Much of the information required by annual reports is not considered to be proprietary. The FAA will consider specific requests that certain information identified by the operator be held in confidence.

Comment: A commenter suggests that reports be submitted at 6-month intervals rather than annually.

Final Rule: Annual reports are mandated by the statute, and the FAA does not foresee any use for information submitted at 6-month intervals. Additional reports would add to the administrative costs of the rule with no corresponding benefit.

Comment: The commenters generally agree that the information proposed to be submitted in the annual progress reports is appropriate. A commenter states that the FAA requests too much information and that only plans for compliance with the next interim date should be required. This commenter contends that carriers would be precluded from making plans to incorporate new technologies with respect to later compliance dates if the reports are to cover the entire compliance period.

Final Rule: The final rule requires annual reports to include the operator's expected plans for meeting the interim compliance schedule and the final compliance date. The information requested is essential to the effective monitoring of compliance with this rule. It should be understood that the plans can be revised by an operator for any reason at any time. Because the reports will be submitted annually, any changes from previous annual reports that reflect new plans, new availability of technology, or changing circumstances must be incorporated.

Comment: Some airport operators indicate that they would prefer to see an annual report listing the number of operations of Stage 2 airplanes at individual airports rather than the number of Stage 2 airplanes a carrier has in its fleet.

Final Rule: The annual report required by the statute and regulations will be used to show an individual operator's compliance with the phased elimination of its Stage 2 airplanes, not its operation of Stage 2 airplanes at an individual location. The FAA cannot justify the imposition of the cost to operators to

tabulate such information when the FAA has no need for such information.

Discussion of Comments—Regulatory Impact Analysis

NPRM: The NPRM Regulatory Impact Analysis explored the costs and benefits of requiring the operational phaseout of all Stage 2 airplanes by December 31, 1999. It quantified, to the extent practicable, estimated costs and benefits of sections 9308 and 9309 of the statute, and the regulations proposed thereunder, to the private sector, consumers, Federal, State, and local governments. The FAA estimated that the proposed rule would have minimal impact on international trade and small entities.

Costs

Comment: Several commenters, especially air cargo carriers, argue that the 25-year life-cycle used in the economic calculations is too low and not a realistic representation of an airplane's useful life. One commenter argues that cargo airplanes age at a rate two and a half times slower than passenger airplanes due to the reduced number of flight hours per day. This commenter states that cargo carriers use their airplanes less extensively than passenger air carriers. This commenter as well as others suggest that the life of airplanes should be based on usage rather than age.

Final Rule: The FAA retains the 25-year life-cycle in the final rule because it is based on an age profile of existing industry airplanes. In January 1991, the domestic fleet airplane-age profile showed that only 4 percent of air carriers' airplanes exceeded 25 years of age, while the average age was 18 years. The FAA's review of 75 percent of all-cargo carriers' airplanes indicates that the average age is 19 years. Thus, based on those averages, the FAA contends that the 25-year life-cycle is realistic for the purposes of comparison and analysis of the final rule.

However, the FAA is concerned about whether the chosen scenarios would have been different if a 30-year life for airplanes were assumed, and thus has included a cost sensitivity estimate for the 30-year life in the final cost analysis. Based on the fact that some air carriers have been experiencing a shortage of capital, there may be a brief period when the 25-year life cycle assumption would not be appropriate. This situation is expected to pass because the Gulf war has ended and the U.S. economy is recovering from the recent recession. Therefore, while the FAA is concerned about the near-term economic circumstances of the industry, its long-

term viability is not expected to be affected.

Comment: A commenter asserts that the cost of the proposed rule is \$90 billion. This estimate differs considerably with the FAA's high-end estimate of \$5.7 billion. This disparity arises primarily in the estimation of the per-seat airplane cost. This commenter's average per-seat cost for 1990 is \$259,000 with a range from \$200,000 to \$300,000 (the FAA per-seat costs range from \$186,000 to \$198,000).

Final Rule: The FAA disagrees with the asserted cost. This commenter uses data for airplanes ordered during 1990 to support its argument. Because much of the replacement cost will be incurred later in this decade, the costs of those replacements must be discounted back to the present. This commenter's cost estimate uses no discounting of future costs and reflects the time of airplane delivery. Hence, the price of the airplane includes a compounded inflation rate for the years between the order and delivery. The FAA costs represent the price paid for airplanes delivered in 1988 as inflated to 1990 dollars. This commenter's estimate of \$90 billion attributes all of the normal airplane replacement costs to Stage 2 phaseout costs. Approximately two-thirds of this commenter's cost estimate represents normal replacement costs.

Comment: Some commenters want added flexibility from the costs imposed by the compliance schedules as noted in the NPRM.

Several commenters ask for more leniency because of the current poor financial condition of domestic airlines. Some suggest establishing a schedule with built-in slippage or compliance delays.

Final Rule: The final rule allows operators a choice of compliance methods. The final rule takes into consideration benefits to the public and the cost impact on the airline industry's financial health. To provide additional flexibility for carriers, the final rule provides for carry-forward compliance credits and a waiver from interim compliance requirements.

Comment: Several commenters criticize the inclusion of noise abatement retrofit equipment in the Regulatory Impact Analysis because FAA-certificated noise abatement retrofit equipment is currently not available for some airplanes in their fleets. Another commenter points out that noise abatement retrofit equipment creates additional costs resulting from fuel and load penalties.

Final Rule: The FAA expects to certify noise abatement retrofit equipment for most existing Stage 2 airplane models in

the near future, thus allowing airlines to meet the requirements of the final rule without replacing airplanes. The FAA views the inclusion of noise abatement retrofit equipment information in the economic analysis as appropriate. When compared to replacing airplanes or airplane engines, the FAA considers hushkit retrofit equipment to be the least costly alternative for Stage 3 conversion. The Regulatory Impact Analysis calculates the cost impact of phasing out Stage 2 airplanes, phasing in Stage 3 airplanes, and the statute. A summary of that analysis is included in this document.

Comment: Some commenters state that the 10 percent discount rate that the FAA uses to calculate the present value of the costs is incorrect. The commenters state that it is not appropriate to use the 10 percent rate when analyzing the costs imposed on the private sector. One commenter stated that using a high (10 percent) discount rate understates the rule cost.

Final Rule: Pursuant to Circular No. A-94 of the Office of Management and Budget (OMB), Federal agencies are required to use a 10 percent discount rate when evaluating costs incurred over time. Agencies must also evaluate a rule's benefits using the same 10 percent discount rate.

Comment: An airline asserts that waivers from the 1999 final compliance date should be automatic if an airline achieves an 85 percent reduction to its Stage 2 baseline fleet. This commenter states that the waiver will reduce costs by eliminating of unnecessary investment decisions.

Final Rule: The FAA's cost analysis assumes that no waivers will be granted, and thus overstates the costs to the extent waivers are given. Waiver applications will be evaluated on an individual basis. To the extent that applicants meet certain criteria, waivers will be granted. The individual circumstances that will be required to obtain a waiver cannot be estimated effectively, and thus cannot be included in the cost analysis.

Benefits

Comment: Many comments addressing the benefits of the proposed rule are of a general nature. Some commenters assert that the proposed rule provides no significant benefits. A commenter states that few people will benefit from the interim compliance schedule. This commenter claims that these benefits are less than the costs of the proposed rule.

The joint submission uses this same argument of limited benefits until 1999

as support for its advocacy of a fleet mix alternative. While the joint submission acknowledges that there are benefits for property values, the number of citizens affected by noise, and the possibility of fewer local restrictions, it also insists that under no circumstances do such benefits outweigh the costs associated with the rule.

A commenter states that the realization of certain benefits of an all Stage 3 fleet is dependent upon local government actions to secure proper land use in an airport's vicinity. This commenter recognizes that the FAA can address these benefits but cannot control actions to achieve the economic gains. An air cargo operator recognizes some additional benefits of the Stage 2 phaseout that go beyond airplane replacement or modification, including the elimination of potential exposure to future noise and emissions regulations, deferral of airplane purchases, improved dispatch reliability based on engine reliability, improved equity in a re-engined airplane, and improved payload performance. Several members of Congress comment that a cost-benefit approach based on quantities often discriminates against the environmental concerns. These representatives state that the FAA's calculations underestimate the importance of reduced noise to an airport's neighbors.

Final Rule: In response to wide-ranging comments on the determination of the benefits of the final rule, the FAA notes that Congress, in passing the Airport Noise and Capacity Act of 1990, determined that the overall benefits of the transition to an all Stage 3 fleet by the year 2000 exceed the costs. The FAA quantified the benefits of the rule to its best ability and as practicable as required by OMB. OMB requires under Executive Order 12291 that the FAA provide "a description of the potential benefits of the rule, including an evaluation of effects that cannot be quantified in monetary terms."

Comment: A commenter raises specific concerns about the use of property value variation to determine the benefits of the Stage 2 phaseout. This commenter takes issue with the FAA's assertions that for every decibel decrease in airplane noise there is a corresponding one-half percent increase in property values. While this commenter views this inverse relationship as "convenient", they see no basis in fact. Several commenters claim that the property value studies cited are inconclusive. Some discredit the studies as being too old, while others state that a recently conducted study deserved more attention. A commenter

representing municipalities states that the highly simplified formula for measurement of changes in real estate values mentioned in the NPRM is not sufficiently grounded in scientifically or economically acceptable methodology to be given significant weight in the implementation of the important national policy under consideration here. Another commenter proposes eliminating all of the estimated benefits resulting from an increase in residential property values quoted in the NPRM preamble. The commenters did not provide an alternative method of calculating a quantitative measure of the expected property value benefits. The FAA is still convinced that the information provided is useful in understanding the effects of the final rule.

Final Rule: The analysis represents an attempt to provide the public and government officials with a nationwide quantitative estimate of some of the expected property value benefits of this final rule over an extended period of time, within the limitations of available data. The FAA acknowledges that property values may not, in the case of specific properties, always increase as noise decreases. This generalized relationship of noise and property values cannot be automatically applied to specific communities around specific airports, where property values may or may not be affected by noise. Each community adjacent to an airport must be studied through market analysis to determine the impact that noise has on property values in the area. It is easily conceivable that being located near an airport would increase certain property values because of the economic stimulus of air commerce. A community's demographics and real estate activity reflect the quantitative measure of real property value.

Comment: Many commenters claim that the FAA's Regulatory Impact Analysis lacks a critical evaluation of the health benefits generated by the final rule. The issue was controversial, with some commenters alleging adverse health effect due to noise while others questioned whether noise degraded health in any way.

Final Rule: With the exception of the potential of noise-induced hearing loss at severe levels of noise exposure, there currently is no sound scientific basis for making adequate risk assessments of the non-auditory health effects of airplane noise in airport environs. Potential non-auditory health consequences of airplane noise exposure which have been alleged include birth defects, low birth weight,

psychological problems, cancer, stroke, hypertension, and cardiac disorders such as myocardial infarction and cardiac arrhythmia. The current state of technical knowledge does not support an inference of a direct, quantitative relationship between airplane noise exposure and health consequences. Current findings, taken in sum, indicate only that further rigorous studies are needed. Therefore, the benefits analysis does not assess the effects of noise reduction on health.

Competitive Impact

Comment: The joint submission states that the draft Regulatory Impact Analysis fails to make a meaningful appraisal of the rule's effect on competition in the airline industry. In particular, the commenters claim that the analysis failed to give adequate consideration to the effect on small or financially weak carriers and the adverse effects on fares and service. The commenters also claim that reliance on the report of the Secretary's Task Force on Competition in the U.S. Domestic Airline Industry should not be the basis for determining the competitive effect of the final rule. The joint submission claims that the report is outdated (based on data from 1984-1988) and was never intended to be used as a predictor of future competition in the U.S. airline industry.

Final Rule: The Regulatory Impact Analysis provides a general and reasonable assessment of the potential effects of this rule on competition and on large and small airlines. In addition, the Secretary's report thoroughly assesses the level of competition in the U.S. airline industry. While the airline industry has changed since 1988, the level of competition in the industry has not changed significantly. The major conclusions in the Secretary's report are still valid today and, in the FAA's estimation, will continue to be valid over the next 10 years. More current data placed in the docket for this rule show that the number of competitive markets has continued to increase.

Comment: A group of commenters asserts that the FAA used outdated and irrelevant financial data and, therefore, overestimated the industry's ability to cope with the proposed rule's costs. They also assert that the analysis underestimated the degree to which individual carriers would exit airline markets, particularly given the rule's disproportionate impact on individual carriers.

Final Rule: The financial data used in the final Regulatory Impact Analysis is the most recent and credible data

available at this time. The financial data contained in the FAA's Quarterly Industry Review (December 1990) and Form 41: User's Guide—Financial and Traffic Statistics for U.S. Certificated Carriers are considered to be very creditable and relevant sources of airline financial data.

Comment: Another commenter questions the FAA's use of the DOT Competition Study (February 1990). The commenter claims that the study does not establish the degree of concentration in domestic airline markets and that the study lacks significance for public policy decision-making in competition.

Final Rule: The FAA disagrees. The draft Regulatory Impact Analysis merely referenced a conclusion of the DOT Competition Study (Pricing, Volume 1, page 2). That study concludes that the fundamentally competitive nature of the industry has not changed in recent years. The proliferation of hub-and-spoke systems and their inherent stability have reduced the intensity of price competition in many short-haul local markets, while intensifying the benefits of price competition for the vast majority of travelers.

Comment: A number of commenters assert that the proposed rule fails to consider that the national hub-and-spoke system lacks the power to discipline or control regional and local markets. This is particularly true for high frequency or shuttle-type service.

Final Rule: The FAA disagrees. The competition section contained in the analysis for the proposed rule assumed that regional and local markets would be dictated by competitive market forces, not the hub-and-spoke system. The FAA does not have, nor did it receive from the commenters, sufficient information that would lead it to think otherwise.

Comment: Several commenters state that the proposed rule would cripple their ability to expand and, in some cases, their ability to maintain low-fare air service. Other commenters state that the proposed rule is unnecessarily inflexible, and that it is contrary to the intent of Congress that compliance with the statute be achieved through a phase-in of Stage 3 airplanes.

Final Rule: The FAA acknowledges that the proposed rule would restrict some air carriers' ability to expand more than others. Consequently, the FAA has incorporated more flexibility into the final rule. The final rule adds additional flexibility through the addition of carry-forward compliance credits, waivers from the interim compliance requirements, and a fleet mix percentage compliance option.

Comment: Some commenters contend that the proposed rule would cost an inordinately greater percentage of the net worth of the smaller, low-fare carriers than that of any of the larger carriers. After the FAA's calculation of present value cost is taken into consideration, three low-fare carriers have a remaining net worth of \$117 million. Three larger carriers will have a remaining net worth approximating \$5.4 billion. This is a 45-fold disparity.

Final Rule: The FAA recognizes that operators of Stage 2 airplanes will be affected in varying degrees by this rule. Overall, the FAA expects that actual costs will be less than those cited because the cost estimates used in the draft Regulatory Impact Analysis are conservative (high). The estimates were based on the worst-case scenario that all Stage 2 airplanes would be replaced rather than modified to meet compliance by less costly alternatives. In fact, the FAA anticipates that many air carriers, as practicable, will install noise abatement retrofit equipment.

Comment: According to a commenter that operates Boeing 737-200 airplanes, the proposed rule would have a severe effect on its ability to serve its markets. The commenter states that if the proposed rule is adopted, these markets would be the first to suffer.

Final Rule: As stated previously, the proposed rule is not expected to have a significant, if any, impact on small or nonhub markets. Those air carriers affected by the final rule and the statute are expected either to replace their Stage 2 airplanes with Stage 3 airplanes or install noise abatement retrofit equipment. Given the competitive market, if an air carrier fails to replace Stage 2 airplanes serving smaller markets, then it is reasonable to assume that such services would be provided by another air carrier. The commenters also failed to provide any evidence that would support their allegation of the severe adverse impact on its markets in question as well as those for other air carriers' markets.

Regulatory Flexibility Determination

Comment: With regard to the impact of the proposed rule on small carriers and those with few U.S. operations, some of the airlines comment that waivers from the interim compliance requirements should be considered to give small carriers some added flexibility in meeting the December 31, 1999, deadline. Such waivers, according to the comments received, would recognize the value of competition provided by small carriers and address their special financial needs.

Final Rule: The final rule contains a mechanism by which all operators may apply for waivers from interim compliance requirements. The effect of compliance on competition and an operator's financial status are among the criteria that will be used to evaluate applications for such waivers.

Comment: A small express carrier indicates that it is much more costly proportionately for a smaller air carrier to convert a fleet to Stage 3 because at any one time there may be several airplane types operated. For smaller carriers, the cost of maintaining an inventory of parts cannot be spread out over a large number of airplanes.

Final Rule: Congress required the FAA to establish a compliance framework that would eventually result in the elimination of Stage 2 airplane operations. Any dates established would require an air carrier to maintain an inventory of spare parts for more than one kind of airplane if replacement airplanes are the operator's only option. The commenter did not offer any flexible solution that could eliminate the inventory problem as described above.

Comment: Many comments were received concerning the minimum fleet size for a foreign air carrier to be subject to the interim compliance dates of the rule. Some comments suggest that the minimum fleet size be increased from two to four or five. A foreign airline suggests that the FAA exempt those carriers from the interim compliance dates whenever the carrier operates no more than one daily round trip flight to the contiguous United States.

Final Rule: In the final rule, U.S. operators and foreign air carriers are treated the same. This change from the proposed rule obviates the need for special circumstances for foreign operators of small fleets. Both U.S. operators and foreign air carriers will benefit from the rounding provision in terms of the number of airplanes that must be retired.

Comment: In terms of the rule's flexibility regarding noise abatement retrofit equipment availability, a municipality's transportation department commented that owners of DC-8 airplanes can only modify their airplanes with new engines. This commenter states that other noise abatement retrofit equipment for the DC-8 airplane is not available.

Final Rule: The FAA agrees that currently there is no certificated hushkit-type noise abatement retrofit equipment available for the DC-8 airplane. Owners of DC-8 airplanes still have the option of replacing engines, retiring airplanes, or adding to their Stage 3 fleets in order

to comply with the final rule. Operators may also apply for a waiver from an interim compliance requirement and present their circumstance of lack of available technology causing greater costs of compliance.

Federalism and International Trade Impacts

With regard to the proposed sections on Federalism and the International Trade Impact Analysis, no substantive comments were received.

Section-by-Section Discussion of the Final Rule

Section 91.801 Applicability: Relation to Part 36

In the NPRM, the FAA proposed to revise §§ 91.801 through 91.811 to accommodate the regulations implementing sections 9308 and 9309 of the statute. After further consideration, the FAA has decided that to maintain continuity in subpart I of part 91, the new regulations implementing the statute will be added beginning with § 91.851. This designation will allow faster reference to the set of regulations that apply to large airplanes operating in the contiguous United States, and leaves intact the operating noise limits governing areas of the United States not covered by the statute and the regulations regarding Stage 1 and supersonic airplanes.

The only exception to this designation is the addition of paragraph (c) to § 91.801 that describes the applicability of the subject regulations and refers the reader to the proper sections of subpart I.

In the NPRM, the FAA indicated that it proposed to limit the application of the phaseout requirements to airplanes with standard airworthiness certificates. This limitation would have effectively excluded a small number of airplanes with experimental and restricted category airworthiness certificates from the phaseout. Such airplanes are generally used for research and development, firefighting, and other specialized purposes and cannot, by definition, be used in revenue service.

After further review, the FAA concluded that such an interpretation of the statute may not fairly be made. Section 9308 of the statute is unambiguous in its coverage of "any subsonic turbojet aircraft" without limitation as to its airworthiness certification. Accordingly, these regulations must be read as applicable to all civil subsonic turbojet airplanes with a maximum certificated weight of more than 75,000 pounds, regardless of the type of airworthiness certificates

they possess. The language of § 91.801(c) has been revised accordingly.

Section 91.851 Definitions

A definitions section, § 91.851, has been added. The definitions apply only to §§ 91.853 through 91.875. These terms and their specialized meaning for the regulations have been gathered in one place to facilitate reference to terms used repeatedly.

All of the terms appearing in this section have the same meaning as proposed in the NPRM. At the request of commenters, some of the terms have been clarified.

The only term that warrants further explanation is operations specifications. The term is defined in § 91.851 to mean an enumeration of an operator's airplanes by type, model, series, and serial number that were operated by an operator on a given day (most likely the date chosen for establishing its base level or for reporting its status).

The FAA is aware that some operators are not required to maintain operations specifications as they are formally known, and that the operations specifications of some operators do not actually contain a list of airplanes being operated.

However, all operators have or can create a list of airplanes that they are operating on any given day. The FAA uses the term operations specifications in §§ 91.851 through 91.875 as a shorthand reference to such a list, without regard to whether such list is formally maintained or created for the purpose of reporting to comply with §§ 91.853 through 91.875. For operators that maintain such lists to comply with other regulations, the FAA anticipates that such lists will be submitted as they are maintained.

The definition and the use of this term in these regulations does not change the status, designation, content, retention or any other requirement for operations specifications required elsewhere in the Federal Aviation Regulations.

Section 91.853 Final Compliance: Subsonic Airplanes

Section 91.853 implements the final compliance date for Stage 3 operations set by the statute, which states:

After December 31, 1999, no person may operate to or from an airport in the United States any civil subsonic turbojet aircraft with a maximum weight of more than 75,000 pounds unless such aircraft complies with the Stage 3 noise levels, as determined by the Secretary.

The statute also provides that this prohibition:

* * * shall not apply to aircraft which are used solely to provide air transportation outside the 48 contiguous States.

Accordingly, § 91.853 limits the compliance and nonaddition provisions to Stage 2 airplanes that are operated to or from any airport in the contiguous United States.

Section 91.855 Entry and Nonaddition Rule

The statutory nonaddition rule, section 9309, prohibits the operation in the contiguous United States of any Stage 2 airplane imported after November 5, 1990. Specifically, the statute states:

[N]o person may operate a civil subsonic turbojet aircraft with a maximum certificated weight of more than 75,000 pounds which is imported into the United States on or after [November 5, 1990] unless—

- (1) it complies with Stage 3 noise levels, or
- (2) it was purchased by a person who imports the aircraft into the United States under a written contract executed before [November 5, 1990].

The definition of import proposed in the NPRM and adopted here concerns the transfer of an ownership interest from a non-U.S. person to a U.S. person when the airplane is to be operated in the United States. The nonaddition rule protects U.S. ownership interests in Stage 2 airplanes when that interest existed on November 5, 1990, regardless of the airplane's location on that date. Such airplanes are allowed to return to and operate in the contiguous United States. Thus, the test of the nonaddition rule becomes one of the legal ownership of the airplane on November 5, 1990.

The nonaddition rule is written into the operating rules of part 91 in the form of a regulation describing categories of airplanes that will be allowed to operate in the contiguous United States as of September 25, 1991.

These descriptions were proposed in the NPRM as § 91.805, but because of the designation considerations described earlier, is adopted in the final rule as § 91.855. In addition, this section has been revised to facilitate reference and to clarify applicability.

Section 91.855(a) allows for the operation of any Stage 3 airplane in the contiguous United States without further restriction by this subpart. This was proposed as § 91.805(a)(1), and is adopted without change as § 91.855(a).

Section 91.855(b) allows for the operation of any Stage 2 airplane that was owned by a U.S. person on November 5, 1990, and has remained U.S.-owned since that time. The reference to airplanes in an operator's base level that was proposed in the

NPRM was found to be a source of confusion. The airplanes intended to be covered by the proposed section are all included within the provisions of § 91.855.

As noted in the disposition of comments, this revision clarifies that this provision was not meant to be used to operate a foreign-owned leased airplane once it leaves the fleet of a U.S. operator at the termination of a lease. Leasing of foreign-owned airplanes is to be considered under new § 91.855(c).

As noted in the disposition of comments, the term "U.S. operator" was seen as too restrictive a source of airplanes. Section 91.855(b) refers to a Stage 2 airplane owned by a U.S. person, without further reference to the status of the owner.

Section 91.855(c) allows the operation of foreign-owned Stage 2 airplanes leased to U.S. operators before and on September 25, 1991. This provision was not explicitly stated in the NPRM. Its absence was interpreted by some to mean that foreign-owned Stage 2 airplanes leased to U.S. operators were categorically denied from operation, and by others to be presumed as allowed under the provision for airplanes in an operator's base level.

The addition of § 91.855(c) clarifies that U.S. lessees of foreign-owned Stage 2 airplanes may operate those airplanes for the term of the lease in effect before and on September 25, 1991, including any extensions thereof that were provided for by the lease agreement in effect before and on that date.

The phased compliance status of an airplane leased after the date chosen by an operator to establish its base level is dependent on that base level and subject to the regulations regarding the operator's compliance. No foreign-owned Stage 2 airplane leased after the chosen date gains any special base level treatment simply because of its leased status.

Operators should be aware that a Stage 2 airplane that is not actually "purchased" under a lease/purchase agreement until after November 5, 1990, must have a determination made as to its status with regard to the nonaddition rule. Persons interested in such findings of purchase and ownership are advised to read the FAA Notice of Legal Opinion published at 55 FR 40502 (October 3, 1990). This is the same opinion referenced in the NPRM and concerns determinations of ownership. As indicated in the definition of owner in § 91.851, these determinations will be made under the same considerations as those for part 47 of the FAR.

Section 91.855(d) allows for operation of Stage 2 airplanes by a foreign air

carrier. This was proposed as § 91.805(a)(3). The reference to the proposed phaseout section has been removed because that provision has been moved to § 91.855(h) to clarify its applicability to all Stage 2 airplanes described in § 91.855.

Section 91.855(e) allows for the operation of Stage 2 airplanes by foreign operators when they are operated for a purpose other than foreign air commerce. This was proposed as § 91.805(a)(4), and is adopted here as § 91.855(e) without change.

Section 91.855(f), proposed as § 91.805(a)(5), tracks the language of the nonaddition rule in the statute and allows for the return and operation of Stage 2 airplanes that were U.S.-owned on November 5, 1990, leased to a foreign airline, and returned within 6 months of the expiration of the lease.

Two changes have been made to this section. The first concerns the interpretation of the language of the statute made by the FAA in the preamble to the NPRM. As indicated in the disposition of comments, the explanation overstated the meaning of the statutory language. It is clear that U.S.-owned Stage 2 airplanes did not have to be leased to a foreign airline on November 5, 1990, to qualify for return; U.S.-owned Stage 2 airplanes may be leased at any time. The operational status of the airplane after a return will be determined according to the regulations. In brief, while a Stage 2 airplane that was operated as part of an operator's fleet on November 5, 1990, may subsequently be leased outside the United States, its later return to the contiguous United States will not count as an addition to a U.S. operator's base level. This concept is incorporated into § 91.861(a)(1) and prevents multiple additions to an operator's base level that would be double counted as an airplane phased out by the removal for leasing.

The second change to this section concerns the term "foreign air carrier" used in the statute. That term now appears as "foreign airline" in the regulation. As stated in the disposition of comments, there is no indication that Congress meant to limit the use of this provision. The adoption of the term foreign air carrier as used in the FAA Act could have a discriminatory effect on U.S. owners of Stage 2 airplanes that were leased to a foreign operator that did not have foreign air carrier status. Since the intent of the nonaddition rule includes the protection of preexisting U.S. ownership interests, the language of the regulation has been broadened as requested.

Accordingly, § 91.855(f) is adopted with the changes noted.

Section 91.855(g), proposed in the NPRM as § 91.805(a)(6), tracks the language of the statute regarding the status of airplanes purchased by a U.S. person from a foreign owner (i.e., imported) under a written contract executed before November 5, 1990.

As indicated in the preamble to the NPRM, the FAA does not intend to extend the meaning of the term "executed contract" beyond its generally accepted legal interpretation. In general, the FAA interprets the language of the statute to attempt to account for airplanes that had legally changed ownership but were not yet physically present in the United States and were not leased on November 5, 1990. As described in the comment disposition, executory contracts are those that are considered incomplete. Any determinations of whether contracts are executed or executory beyond these simple circumstances must be made on a case-by-case basis.

Accordingly, § 91.855(g) is adopted without change except as to its designation.

Section 91.855(h) makes every otherwise operable Stage 2 airplane described in the preceding paragraphs subject to the compliance provisions of § 91.865 or § 91.867 that are applicable to the airplane's operator. Nothing in § 91.855 regarding Stage 2 airplanes may be read to negate any provision of the compliance requirements mandated by the statute and incorporated into the regulations at §§ 91.865 or 91.867. This provision is a new paragraph added at the end of § 91.855 to remove individual references and leave no question that all Stage 2 airplanes are covered by the compliance requirements.

Section 91.857 Airplanes Imported to Points Outside the Contiguous United States

This section addresses special rules applicable to airplanes imported (purchased by a U.S. owner from a foreign owner for U.S. operation) after November 5, 1990. When used to provide air transportation, these airplanes may only be operated outside the contiguous United States.

To distinguish these airplanes, the NPRM included proposed § 91.805(d) that required that a statement be added to the operations specifications of the operator that the airplane could not be used to conduct air transportation to or from an airport in the contiguous United States. That requirement is maintained in the final rule as § 91.857(a). Also included as § 91.857(b) is a provision

that allows Stage 2 airplanes imported into noncontiguous States on or after November 5, 1990, to operate in the contiguous United States for the purpose of maintenance. As discussed in the disposition of comments, the statute limits only the operation of such imported airplanes for the purpose of air transportation.

Accordingly, where operated under a special flight authorization that limits the operation to a non-revenue or "ferry" flight, the airplane is not providing air transportation and can be operated into the contiguous United States for the purpose of maintenance. A special flight authorization issued for this purpose must include the fact that it was issued pursuant to this regulation.

Section 91.859 Modification To Meet Stage 3 Noise Levels

The statute provides an exemption in the nonaddition rule for imported Stage 2 airplanes to be operated in the contiguous United States to obtain modifications in order to comply with Stage 3 noise levels.

The FAA will be issuing a Special Federal Aviation Regulation (SFAR) detailing the procedures for obtaining a special flight authorization under this section. In general, the FAA anticipates requiring that an applicant show that it has a valid contract for a certificated modification to secure the special flight authorization. This is the same standard that the FAA has applied consistently to requests to operate Stage 1 airplanes to obtain modifications to comply with Stage 2 noise levels.

Until the SFAR is adopted, persons wishing to take advantage of this provision for airplanes imported after November 5, 1990, may apply under 14 CFR 11.25 for an exemption from § 91.855.

Accordingly, this provision, proposed as § 91.805(c) is adopted as § 91.859, with the changes appropriate to its redesignation.

Section 91.861 Base Level

Under the provisions of this section, each U.S. operator must determine its "base level" of Stage 2 airplanes according to a specified formula. Included are those airplanes on operations specifications on any one day selected by the operator during the period from January 1, 1990, through July 1, 1991; those airplanes added pursuant to the statutory provisions for the return or purchase of Stage 2 airplanes in § 91.855 (g) and (h); and those airplanes acquired with a corresponding amount of base level under § 91.865. Returns, purchases, and transfers of airplanes with base level are discussed further

under the analyses of §§ 91.855 and 91.865.

Each foreign air carrier must determine its base level by including those Stage 2 airplanes on its U.S. operations specifications on any one day during the same 18-month period, plus foreign air carrier base level acquired from other persons. Any such acquisition must be made only with a corresponding number of Stage 2 airplanes.

The rule provides the flexibility necessary to transfer a single airplane with base level or an entire fleet. Elimination of any number of Stage 2 airplanes does not alone change the base level number.

Since, by definition, new entrants did not operate Stage 2 airplanes subject to these regulations during the base level determination period, they will not have a base level. Section 91.867 provides a fleet mix compliance percentage for new entrants depending on the time of market entry.

The definition of new entrant here is different from the definition used in new part 161. In part 161, a new entrant is any aircraft operator that did not operate to or from a particular airport at the time a local noise or access restriction was adopted. In the instant rule, a new entrant is an operator that did not operate Stage 2 or Stage 3 airplanes in the contiguous United States before July 1, 1991.

Section 91.863 Transfers of Stage 2 Airplanes With Base Level

Section 91.863 contains the regulations regarding the transfer of Stage 2 airplanes. Section 91.863(a) indicates that Stage 2 airplanes may be transferred with or without the corresponding amount of base level, but that base level cannot be transferred without the corresponding amount of Stage 2 airplanes.

The FAA presumes that the portion of the base level that corresponds to a leased airplane remains with the operator when the airplane is returned to the owner, unless the lessee and lessor agree otherwise. One consideration in such an agreement would be that the transfer of base level would reduce the operator's base level and affect the number of Stage 2 airplanes it would be allowed to operate after the next compliance date.

Section 91.863(b) indicates that while Stage 2 airplanes and the corresponding base level may be transferred between U.S. and foreign persons, foreign air carriers cannot use base level from U.S. operators, and U.S. operators cannot use base level from foreign air carriers to operate Stage 2 airplanes.

Section 91.863(c) requires that whenever a transfer of airplanes with base level occurs, the transferring and acquiring parties must submit a report of the transaction to the FAA. That report must include the type of base level transferred, that is, whether it is U.S. operator base level or foreign air carrier base level.

Section 91.863(d) states that any transaction or series of transactions in which base level is transferred will be scrutinized by the FAA. Transactions that ultimately result in no increase or decrease in the number of Stage 2 airplanes of either the acquiring or transferring operator will not be valid to establish compliance with the requirements of § 91.865.

This provision is intended to prevent sham transactions involving base level transfers. This provision is necessary to prevent an unrestricted transfer of base level that would function solely as a means to escape compliance by a reduction of Stage 2 airplanes or a change in fleet mix.

As an example, Operator A with a base level of 100 sells 100 Stage 2 airplanes and the corresponding base level to Operator B before the first compliance date. Operator B already had 100 Stage 2 airplanes and a base level of 100. Operator A then buys back the airplanes without the base level, and chooses to report compliance with the fleet mix option of § 91.865(d) because it has enough Stage 3 airplanes to do so. Since the fleet mix option does not require a calculation of base level, Operator A is unaffected by the reduction to its base level.

However, Operator B now has a base level of 200 but only has 100 Stage 2 airplanes. Operator B would be in compliance with the provisions of § 91.865(b) for the 1994 compliance date since it holds twice as much base level as the number of Stage 2 airplanes it operates. In fact, Operator B could add 50 more Stage 2 airplanes to its fleet and still meet the first compliance date. Or, Operator B could do nothing, and it would meet both the first and second compliance requirements of § 91.865(b). Both operators would be in compliance with their chosen options under § 91.865, yet no airplanes would have been eliminated.

Section 91.863(d) indicates that the base level transaction in this example would not be considered valid for Operator B to establish compliance under the phaseout option of § 91.865(b). The net effect of the transactions between Operators A and B is no change in the number of Stage 2 airplanes for either operator. The

regulations do not allow the transfer of base level without a corresponding number of airplanes, which is the eventual result of these transactions. It is clear that neither operator could show a legitimate business purpose for this series of transactions—they constitute no more than an effort to transfer base level. Section 91.863(d) disallows the result of this transaction from being used to establish compliance.

In another example, Operator A finds that it cannot meet the fleet mix requirement of § 91.865(d) for a given compliance date. Before that date, Operator A transfers enough Stage 2 airplanes to Operator B, which can absorb them and still meet its compliance requirement.

If, after the compliance date passes, Operator A takes back its Stage 2 airplanes, it would be in violation of the requirement that it maintain the Stage 2 number or percentage it had on the compliance date just passed.

Alternatively, if Operator A eliminated some other Stage 2 airplanes after the compliance date in order to get back the ones it transferred to Operator B, the transactions would be suspect under § 91.863(d) since it would have been entered into only for Operator A to show compliance on the date required while in reality it was still adjusting the size of its fleet.

Similarly, transactions involving the subleasing or transferring of Stage 3 airplanes to bolster an operator's fleet past a compliance date would also fail the compliance test.

Operators that find themselves unable to comply for reasons of capacity should apply for a waiver from the interim compliance date.

Section 91.865 Phased Compliance for Operators With Base Level

To incorporate the many requests for flexibility in the elimination of Stage 2 airplanes, § 91.865 sets out two compliance options for operators of Stage 2 airplanes that have established base levels.

Section 91.865(a) indicates that the rule for reduction of Stage 2 airplanes does not apply to new entrants, since they are accounted for separately in § 91.867, nor does it apply to foreign operators not engaged in foreign air commerce.

Each operator that operated airplanes before July 1, 1991, and has an established base level, has a choice of how it wishes to comply at any interim compliance date. An operator may choose to comply with paragraph (b) and phase out its Stage 2 airplanes, or it may choose to comply with paragraph (d) and achieve a certain percentage of

Stage 3 airplanes in its fleet. Both options function as a phased transition to the statute's final compliance date of December 31, 1999.

An operator can mix its compliance by choosing to comply with paragraph (b) on one compliance date and paragraph (d) on another. Between compliance dates an operator must maintain the level of compliance it demonstrated on the previous compliance date. This is discussed in more detail below.

Section 91.865(b) sets out the amount of reduction of Stage 2 airplanes from its base level required by an operator on the date of compliance. For example, an operator with a base level of 100 on December 31, 1994, may operate no more than 75 Stage 2 airplanes at any time after that date. After December 31, 1996, that operator may operate no more than 50 Stage 2 airplanes, and after December 31, 1998, no more than 25 Stage 2 airplanes.

Section 91.865(c) indicates that the calculation of how many airplanes may be operated is to be made pursuant to the operator's base level, including any adjustments that were made prior to the compliance date in question.

Section 91.865(d) sets out the alternative method of compliance that an operator may choose. Compliance with this paragraph is achieved by operating a fleet that consists of not less than 55 percent Stage 3 airplanes after December 31, 1994, not less than 65 percent Stage 3 airplanes after December 31, 1996, or not less than 75 percent Stage 3 airplanes after December 31, 1998.

An operator that switches from one method of compliance to the other at different compliance dates may not exceed the number of Stage 2 airplanes it was allowed to operate on the previous compliance date. For example, Operator A has a base level of 100 on December 31, 1994, reports compliance under § 91.865(b) and afterward operates only 75 Stage 2 airplanes. It also operates 100 Stage 3 airplanes, such that its fleet mix is 57.1 percent Stage 3 airplanes. Operator A cannot then acquire 7 additional Stage 2 airplanes to bring its total Stage 2 airplanes to 82 and its fleet mix to 55 percent Stage 3. Operator A must stay at or below the number of Stage 2 airplanes it was allowed to operate after the previous compliance date. In order to increase the number of Stage 2 airplanes it operates before the next compliance date, Operator A would have to acquire sufficient base level to do so. Each operator must maintain the compliance it reported at the previous compliance date.

An operator that reported compliance pursuant to § 91.865(d) at one compliance date may increase the number of Stage 2 airplanes it operates before the next compliance date only if it also adds enough Stage 3 airplanes to maintain the percentage required.

Section 91.865(e) indicates that compliance calculations that result in a fraction may be rounded to allow the operation of the next whole number of Stage 2 airplanes. For example, under paragraph (b), an operator with a base level of 123 would have a calculation that resulted in 92.25 airplanes after the first compliance date. That operator may operate 93 Stage 2 airplanes after that date. Under paragraph (d), an operator that found itself, for example, with a fleet that consisted of 54.22 percent Stage 3 airplanes at the first compliance date could round this number up to 55 percent without eliminating any more Stage 2 airplanes.

Section 91.867 Phased Compliance for New Entrants

Paragraphs (a)(1), (2), (3), and (4) of § 91.867 provide a Stage 2 airplane fleet allocation for U.S. new entrants that hold an operating certificate under part 121, 125, or 135 of the FAR. The rule specifies the minimum percentage of a new entrant's airplanes that must meet Stage 3 noise levels, with the specific percentage tied to the date that the new entrant begins operations. The definition of Stage 3 airplane in § 91.851 prohibits airplanes with a maximum certificated weight of 75,000 pounds or less from being counted to meet compliance schedule percentages for new entrants.

Paragraphs (b)(1), (2), (3), and (4) provide the Stage 2 airplane fleet allocation for foreign air carrier new entrants that hold an operating certificate under part 129 of the FAR.

Section 91.867(c) indicates that calculations of the number of airplanes operated by a new entrant that result in a fraction may be rounded to allow the operation of the next whole number of Stage 2 airplanes.

Section 91.869 Carry-forward Compliance

Section 91.869 indicates that an operator that exceeds a compliance requirement of § 91.865(b) may accrue compliance credit for the number of airplanes by which it exceeds the number required for compliance. Such carry-forward compliance credit may accrue at the December 31, 1994, or December 31, 1996, compliance date. It may be used at the December 31, 1996, or December 31, 1998, compliance date.

Section 91.869(b) indicates that operators that choose to comply with the phaseout option can use the excess number of Stage 2 airplanes phased out as a credit against later compliance with § 91.865(b) or (d).

For example, under § 91.865(b) an operator with a base level of 100 may operate no more than 75 Stage 2 airplanes after December 31, 1994. If at that time the operator reports only 70 Stage 2 airplanes, it may later claim a carry-forward compliance credit of five. Accordingly, on December 31, 1996, instead of reducing its Stage 2 airplanes to 50, it would only have to reduce that number to 55 and report that it is using its accrued carry-forward compliance credit.

If an operator that holds five carry-forward compliance credits after December 31, 1994, decides to comply with the fleet mix provision of § 91.865(d) on December 3, 1998, it may still use those credits to achieve compliance. If the operator had 69 Stage 3 airplanes and 25 Stage 2 airplanes, its fleet mix would be 73.4 percent Stage 3, or 74 percent after rounding. The operator could use its credit to calculate its fleet as containing 74 Stage 3 airplanes, and its fleet mix would then be 74.7 percent Stage 3, or 75 percent after rounding.

Carry-forward compliance credit may not be transferred to another operator. It does not expire, but it cannot be used to achieve compliance with the 85 percent fleet mix required to apply for a waiver from the final compliance date. That requirement is statutory and cannot be affected by this regulation.

Section 91.871 Waivers From Interim Compliance Requirements

The NPRM did not include a separate provision for waivers from the interim compliance requirements. As noted in the disposition of comments, many commenters requested that such waivers be provided for in the final rule to offer flexibility from the interim compliance requirements.

Accordingly, § 91.871 contains the procedures and information required to be submitted by U.S. and foreign operators when requesting such a waiver.

In general, an applicant may request a waiver when it would be financially onerous, physically impossible, or technologically infeasible to comply with the interim requirement, or when meeting the requirement would have an adverse effect on competition or service to small communities. As indicated in the disposition of comments, the FAA anticipates that the existence and availability of noise abatement retrofit

equipment will be an important factor in the consideration of applications for interim waivers.

An applicant must show why granting a waiver would be in the public interest, and must submit evidence of its good faith efforts to achieve compliance. Additional information relevant to the circumstances of the application must also be submitted, as detailed in the rule language.

Applications must be submitted at least 120 days prior to the compliance date from which a waiver is sought. No individual waiver will be granted that extends beyond the next interim compliance date. If a waiver is sought for the next compliance date, an applicant must reapply based on the circumstances that exist at that time.

A summary of all applications will be published in the **Federal Register** with time allowed for public comment.

Section 91.873 Waivers From Final Compliance

The statute provides that:

If, by July 1, 1999, at least 85 percent of the aircraft used by an air carrier to provide air transportation comply with the Stage 3 noise levels, such carrier may apply for a waiver of the prohibition set forth in subsection (a) for the remaining 15 or less percent of the aircraft used by the carrier to provide air transportation. Such application must be filed with the Secretary no later than January 1, 1999, and must include a plan with firm orders for making all aircraft used by the air carrier to provide air transportation to comply with such noise levels not later than December 31, 2003.

Section 91.873 codifies the requirement for a waiver from the final compliance requirement as set out in the statute. The terms of the statute limit the grant of a final compliance waiver to U.S. air carriers. To be eligible, a carrier's fleet must be 85 percent Stage 3 airplanes by July 1, 1999.

The rule lays out the application procedure and filing date, and specifies that to grant such a waiver, the Secretary must find that it would be in the public interest. In addition, criteria similar to the ones enumerated in the provision for waivers from interim compliance requirements will be used, including the effect of granting such a waiver on competition and small community air service.

Section 91.873(e) also states that the term of any final compliance waiver will be determined by the circumstances presented in the application. By statute, no waiver can be granted that would permit the operation of any Stage 2 airplane beyond December 31, 2003.

A summary of all applications will be published in the **Federal Register** with time allowed for public comment.

Section 91.875 Annual Progress Reports

Section 91.875(a) requires each operator covered by § 91.865 or § 91.867 to report annually to the FAA, Office of Environment and Energy, its progress on complying with the appropriate section. Progress reports are for calendar years.

Sections 91.875(a) (1) through (3) list the information that must be provided in every report, including identification of the operator, any base level transactions, and the individual airplanes removed from service or modified to meet Stage 3 noise levels. Specific identifying information will be required for each Stage 3 airplane. This information is necessary to permit the FAA to ensure that airplanes reported are in fact operated in the reporting operator's fleet, as required by § 91.865. Only those airplanes actually operated by the reporting operator will count toward determining compliance with that section. When an airplane is reported in the fleet of more than one operator, because of a lease or other arrangement, the FAA may investigate, if necessary, to determine whether the requirements of § 91.865 have been met.

Section 91.875(b) lists the information that must be included in the initial report of each operator that covers the period January 1, 1990, through December 31, 1991. The information required for this report is detailed in § 91.875(b)(1). In addition, each U.S. operator must submit its plan for meeting the requirements of the regulations and the statutory final compliance date. U.S. operators must also identify any Stage 2 airplanes that were returned or purchased pursuant to the nonaddition rule, § 91.855.

Section 91.875(c) indicates that subsequent annual reports must include any changes in the information required pursuant to paragraphs (a) and (b) of § 91.875, including the use of any carry-forward credits.

Section 91.875(d) indicates that information submitted that an operator considers proprietary should be identified and a request made to keep the material confidential.

Section 91.875(e) indicates that if actions taken by an operator during a reporting period cause it to be in compliance with § 91.853, that status must be reported. Future reports are not required unless the required information changes.

Section 91.875(f) indicates that certain annual progress reports must contain

information describing how the operator achieved compliance with the interim compliance requirements.

Economic Summary

This section summarizes the Regulatory Impact Analysis prepared by the FAA on the amendments to 14 CFR part 91, Subpart I—Operating Noise Limits. This summary and the full regulatory impact analysis quantify, to the extent practicable, estimated costs to the private sector, consumers, and Federal, State, and local governments, as well as anticipated benefits.

Executive Order 12291, February 17, 1981, directs Federal agencies to promulgate new regulations or modify existing regulations only if potential benefits to society for each regulatory change outweigh potential costs. This determination is normally made on the basis of a regulatory evaluation or regulatory impact analysis. However, by enacting the Airport Noise and Capacity Act of 1990, Congress has in effect already determined that the phased transition to an all Stage 3 fleet by the end of 1999 is in the public interest; that is, the collective public benefits of the phased transition outweigh its costs to the public. The FAA has prepared a regulatory impact analysis of the final rule. The purpose of the analysis is to estimate potential costs and benefits (either qualitatively or quantitatively) and to promote a better understanding of the impact of the rule.

Executive Order 12291 requires the preparation of a Regulatory Impact Analysis of all "major" rules except those responding to emergency situations or other narrowly defined exigencies. A "major" rule is one that: has an annual effect on the economy of \$1 million or more; creates a major increase in costs or prices for consumers, individuals, industries, Federal, State, or local government agencies, or geographic regions; or has a significant adverse effect on competition, employment, investment, productivity, innovation, or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic or foreign markets. The Executive Order requires that alternative actions be considered and evaluated for major rules.

In addition to a summary of the regulatory impact analysis, this section also contains a summary of public comments, various alternatives for accomplishing the phased transition to Stage 3 airplanes, a regulatory flexibility determination as required by the 1980 Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*), and an international trade impact assessment. Detailed economic

information supporting this final rule is contained in the final Regulatory Impact Analysis, which has been placed in the docket.

Summary of Public Comments

The public comments that the FAA received on the regulatory impact analysis, regulatory flexibility determination, and international trade impact assessment are discussed above. Some of the issues that the commenters address are the methods the FAA used to calculate the cost of compliance, whether the health benefits from noise reduction can be quantified, and the stringency of the compliance schedule. As stated above, a more detailed discussion of the comments on these topics and others can be found in the detailed Regulatory Impact Analysis of the final rule, which has been placed in the docket.

Summary of the Description of Alternative Actions

For this final rule, the FAA compared several additional alternatives. These alternatives fall under the broad categories of:

- Stage 2 phaseout schedule;
- Fleet mix schedule;
- Interim compliance waivers;
- Carry-forward compliance credits;
- Transferable rights.

Stage 2 Phaseout Schedule

A phaseout of Stage 2 airplanes was originally proposed in the NPRM. This phaseout approach would ensure that an absolute number of Stage 2 airplanes would be retired or modified by each compliance date, with the corresponding quantifiable noise benefits. It would also require every operator to share the cost burden at each compliance date. The issues associated with phaseout schedules are whether to: (1) Maintain the NPRM phaseout schedule; (2) exclude the 1998 compliance requirement of a 75 percent reduction from the base level; or (3) exclude the 1994 compliance requirement of a 25 percent reduction from the base level. A phaseout schedule that does not require significant progress toward a quieter fleet by the end of 1994 could result in a proliferation of locally proposed airport restrictions on Stage 2 operations. While, as noted in the part 161 rulemaking, the FAA would generally oppose such restrictions, considerable uncertainty and expensive deliberation would result. Eliminating the 1998 compliance date could reduce costs substantially while reducing the benefits proportionately, but would entail the risk of numerous local restrictions.

Stage 3 Phasein Schedule

As an alternative to phasing out Stage 2 airplanes, a large number of commenters supported an option to phase in Stage 3 airplanes. This alternative would allow operators to reduce the percentage of their fleets that are composed of Stage 2 airplanes by adding Stage 3 airplanes or converting Stage 2 airplanes to Stage 3. This is designated as compliance Scenario 4 in the Regulatory Impact Analysis. The FAA considered two such fleet mix schedules. The interim dates for each schedule are the same—1994, 1996, 1998—but the compliance percentages are different. Fleet mix scenario 4A would require operators to have 65, 75, and 85 percent Stage 3 fleets at each interim date, respectively. Fleet mix Scenario 4B, the option chosen for this final rule, would require 55, 65, and 75 percent, respectively.

The fleet mix option favors those operators starting the phased transition with larger percentages of their fleets consisting of Stage 3 airplanes. However, the fleet mix option could ease the compliance burden on some air carriers with a high percentage of Stage 2 airplanes. It will also provide noise relief benefits to a significant number of people, although at a slightly lesser rate than the proposed Stage 2 phaseout alone would. The major noise benefits accruing at the end of 1999 would be the same with either approach.

Interim Compliance Waivers

An issue not considered in the NPRM is whether to include waivers from interim compliance requirements. These waivers have been included in the final rule and will require the affected parties to demonstrate that they meet certain criteria before the waiver is granted.

Carry-forward Compliance Credits

Carry-forward compliance is a concept similar to transferable rights. Carry-forward compliance credits earned by phasing out additional Stage 2 airplanes can only be used by the operator generating them. The FAA concludes that carry-forward compliance credits will add flexibility and reduce compliance costs while maintaining the same level of benefits.

Transferable Rights

After careful consideration of the public comments, the FAA has determined from a qualitative viewpoint that the final rule will not include transferable rights. In making this determination the FAA reviewed several options including those proposed in the joint submission.

A complete explanation of transferable rights is presented in the preceding comment disposition section of this document.

Scenarios for the Final Rule

For the final rule, the FAA developed five compliance scenarios based on the schedules presented in the NPRM and public comments. All of the assumptions made in the NPRM for the Stage 2 phaseout will be used in the final rule. These assumptions include: airplane life (25 years), interest rate (10 percent), salvage value of Stage 2 airplanes (\$1–2 million), alternative uses for the airplanes, availability of noise abatement retrofit equipment, types of replacement airplanes along with the price of fuel (\$0.65 per gallon), and the cost of a new Stage 3 airplane (\$186,229 to \$198,237 per seat).

The FAA considered the following five scenarios:

Scenario 1—NPRM Schedule 5, a Stage 2 phaseout approach with three interim compliance dates: December 31, 1994; December 31, 1996; December 31, 1998.

Scenario 2—NPRM Schedule 5 without the December 31, 1998, compliance date.

Scenario 3—Scenario 1 plus an evaluation of any cost savings resulting from waivers granted from the interim compliance requirements and the use of carry-forward compliance credits.

Scenario 4—Adds a fleet mix compliance option to Scenario 3. There are two variations of this scenario, 4A and 4B which are explained below.

Scenario 5—Scenario 1 with the addition of a transferable rights approach.

Costs

The final rule implements a phased transition to Stage 3 airplanes as required by the statute. The costs attributed to removing all Stage 2 airplanes by December 31, 1999, for the carriers studied in this analysis for which reliable data are available is \$4.2 billion. Assuming compliance by installing the least expensive noise abatement retrofit equipment on these affected airplanes,¹ the cost will be \$830 million. The final rule allows operators to phase out Stage 2 airplanes under Scenario 3 or choose a fleet mix approach under Scenario 4B. Allowing air carriers to select a compromise approach maximizes benefits and minimizes costs. The costs of these scenarios are presented below.

Five compliance scenarios were evaluated for the final rule and will be described in a later section entitled Cost of Compliance. These statutory costs are underestimated because the FAA is assuming that Stage 2 airplanes are instantaneously replaced with Stage 3 airplanes at midnight, December 31, 1999. In reality, operators will remove Stage 2 airplanes over a period of time. Conversely, the costs associated with the five compliance scenarios are overestimated.

These compliance scenarios can be met by the operators by either replacing airplanes or installing noise abatement retrofit equipment. Scenario 3, for instance, allows compliance to be achieved only by eliminating Stage 2 airplanes while Scenario 4 allows compliance to be achieved by either eliminating Stage 2 airplanes, adding Stage 3 airplanes, or both. In most cases, replacing Stage 2 airplanes with new Stage 3 airplanes will cost more than installing noise abatement retrofit equipment. Because the industry can comply with the statute through retrofitting with noise abatement equipment, rather than by upgrading to new airplanes, the FAA considers the retrofit cost as the more likely cost of the rule.

In addition to the cost of the final rule's phased compliance schedule, there will be administrative costs for the FAA and the industry. As required by the statute, § 91.875 requires U.S. operators to submit annual progress reports to the FAA showing compliance with the requirements of this subpart. The FAA estimates that the net present value of air carrier costs to produce annual progress reports will be \$20,000. The net present value of costs to the FAA to review these annual progress reports and monitor the program will be \$414,000. These compliance costs are not expected to change under any of the scenarios considered.

The following is a discussion of the major alternative scenarios considered in determining the final rule. The method of computing the costs is included.

Cost of Compliance Methodology

The true economic measure of cost resulting from the phased compliance is not the gross purchase price of a replacement Stage 3 airplane. Rather, it is the opportunity cost of capital tied up in the purchase of a new asset, plus or minus the discounted value of changes in operating and maintenance costs that may accrue by replacing older airplanes with new ones.

The opportunity cost of capital, in the case of this final rule, is the premature

interest cost associated with the early unanticipated purchase of Stage 3 airplanes or noise abatement retrofit equipment. Additional costs associated with the purchase of a new airplane should be added to obtain the true purchase cost. Additional costs include employee training, tooling, spare parts, supplemental equipment, etc. To account for these additional costs, the analysis adds \$1 million to published Stage 3 airplane purchase prices.

Cost of Compliance

The two cost models used in this analysis were the fleet model and the air carrier model. The fleet model was used to calculate the cost impact for all affected airplanes and assumed that the oldest Stage 2 airplane, regardless of carrier, is phased out first. The air carrier model was used to examine the cost impact on 17 major and national air carriers. It is assumed in the cost model that the oldest Stage 2 airplane by carrier is phased out first. Consequently, in the air carrier model, some newer Stage 2 airplanes owned by one carrier would be phased out before some older Stage 2 airplanes owned by another air carrier. The air carrier model was used to evaluate the costs and benefits for most of the scenarios.

Costs were estimated for the statutory ban of Stage 2 airplane and for the six alternative scenarios considered. The estimated present value of the cost of the statute, calculated by summing the present value of the costs of the individual carriers, is \$4.2 billion for replacement of Stage 2 airplanes by Stage 3 airplanes and \$827 million for converting Stage 2 airplanes to Stage 3 airplanes by using the least expensive noise abatement retrofit equipment. The FAA believes \$827 million is the most likely cost since noise abatement retrofit equipment will likely be available for most Stage 2 airplanes early in the transition period. It is important to remember that the statutory ban costs will always be incurred without regard to the scenarios adopted in the final rule.

Four of the scenarios (1, 2, 3, and 5) that were considered in the final rule would phase out Stage 2 airplanes as was done in Schedule 5 in the NPRM; the two other scenarios (identified as Scenarios 4A and 4B) would phase in Stage 3 airplanes. Scenario 1 is the same as Schedule 5 in the NPRM, with a Stage 2 phaseout schedule as follows: 25 percent by December 31, 1994, 50 percent by December 31, 1996, 75 percent by December 31, 1998 and 100 percent by December 31, 1999. The present value of the cost for scenario 1

¹ The airplanes that will be affected by the statutory ban and the final rule are those that will be 25 years old after 1994.

was estimated to be \$1.5 billion for replacing Stage 2 airplane with Stage 3 airplanes and \$300 million for converting Stage 2 airplanes to Stage 3 airplanes. The latter is considered by the FAA to be the more likely cost since noise abatement retrofit equipment is expected to be available for most Stage 2 airplanes.

Scenario 2 is similar to scenario 1, except that the 1998 compliance deadline is eliminated. This option would help reduce compliance costs for all air carriers, but operators with young Stage 2 airplanes would be aided the most. However, scenario 2 would likely encourage local airport proprietors to impose their own local airport noise and access restrictions against Stage 2 airplane operations, increasing the costs imposed on all air carriers. Scenario 2 was rejected early from consideration and no cost estimates were done for the 17 air carriers.

Scenario 3 is another phaseout alternative similar to scenario 1, but includes interim compliance waivers and carry-forward compliance credits. The waivers for interim compliance dates will provide flexibility to those air carriers that cannot otherwise comply with the compliance schedule. Carry-forward compliance credits will provide operators an opportunity to initially phase out more airplanes than required so as to reduce their requirements at the later interim compliance dates. The FAA assumed in its evaluation of scenario 3 that waivers will be granted to no more than 15 percent of the airplanes that are to be phased out on each compliance date. If an interim waiver is granted to each carrier, the estimated present value of the costs of scenario 3 is \$1.2 billion for replacement and \$260 million (the more likely cost) for conversion. Some air carrier might choose to use the carry-forward compliance credit option in scenario 3. If air carriers chose to use carry-forward compliance credits, the FAA estimated, for costing purposes, that they would accelerate their phaseout to 30 percent in 1994 and consequently decelerate their phaseout to 20 percent in 1998. This was not considered likely and only fleetwide estimates were done. The present value of the estimated costs were \$550 million for replacement and \$120 million for conversion; these cost estimates would be higher if the carrier cost model was used.

Scenarios 4A and 4B allow the phasein of Stage 3 airplanes. Under these scenarios, operators could potentially meet interim compliance dates by adding Stage 3 airplanes to their fleets, thereby reducing the fleet

percentage of Stage 2 airplanes.

Scenarios 4A and 4B better accommodate those air carriers whose fleets currently have a high starting percentage of Stage 3 airplanes. Scenario 4A requires 65 percent Stage 3 airplanes by the end of 1994, 75 percent Stage 3 airplanes by the end of 1996, and 85 percent Stage 3 airplanes by the end of 1998. Scenario 4B requires 55, 65, and 75 percent Stage 3 airplanes at these same dates. The estimated present value of the costs for Scenarios 4A and 4B are \$1.1 billion and \$273 million, respectively, to replace Stage 2 airplanes with Stage 3 airplanes and \$218 million and \$55 million, respectively, to convert Stage 2 airplanes to Stage 3 airplanes.

Scenario 5 would phase out Stage 2 airplanes as in scenario 1, but scenario 5 allows transferable rights. A base level would be established for each operator and would be based on the maximum number of owned or leased Stage 2 airplanes that were listed on each operator's operations specifications on any one day during the period January 1, 1990 through July 1, 1991. Under this scenario, part or all of the base level could be transferred from one domestic operator to another domestic operator, so that each operator's base level could increase or decrease accordingly. This analysis assumes that the most efficient allocation of operating rights would be based upon a first-in first-out retirement schedule. That is, the oldest airplanes would be retired first. It also assumes that if an airplane is retired earlier than its normal (25 year) useful life, an operating right would be generated that could be traded.

Under this scenario, in an efficient transferable operating rights system, the fleet would be acting as one to meet the requirements of the compliance schedule. This scenario does not require any one operator to meet its schedule. If an individual operator is unable to meet its schedule, then that operator would purchase enough operating rights to meet the compliance schedule.

The cost for scenario 5 falls between the cost of scenario 1 using fleet-wide model and the cost of scenario 1 using the carrier model. For replacing Stage 2 airplanes, the cost would be between \$740 million and \$1.5 billion. The cost would be between \$150 million and \$300 million if all Stage 2 airplanes are converted to Stage 3 airplanes.

The final rule implements scenario 4B. Each operator may choose whether to phase out its Stage 2 airplanes or phase in Stage 3 airplanes to achieve compliance on each interim compliance date.

The FAA expects that most air carriers will choose to phase in Stage 3 airplanes to achieve compliance and to convert Stage 2 airplanes to Stage 3 airplanes (to the extent that such conversions are economically logical) by using the least expensive noise abatement retrofit equipment.

Cost Estimate Assuming 30-Year Life

In addition to calculating the cost under the 25-year useful life assumption, the FAA calculated the cost of the statutory ban and final rule under a 30-year useful life assumption. This was done because some commenters suggested that the average retirement age of their airplanes is currently greater than 25 years. This was also accomplished to determine if the final rule might have been different if a 30-year useful life assumption were adopted.

The air carriers have incurred large losses resulting from reduced operating revenues due to the Persian Gulf war, coupled with a slowdown in the U.S. economy. However, this situation is expected to pass.

The FAA considers the 25-year useful life assumption to remain valid for forecasting in the long run. However, the FAA examined estimates of industry costs based on a useful life assumption greater than 25 years to assess the possible effect of this rule until the financial health of the industry improves.

Using the fleet model, the FAA estimates that the present value of the cost for converting Stage 2 airplanes to Stage 3 is \$2.3 billion for scenario 1 (which was the proposed rule in the NPRM) and \$2.1 billion for scenario 4B. These estimates are the sum of the costs of the statutory ban and cost of the final rule for converting the Stage 2 airplane fleet by installing noise abatement retrofit equipment. The estimated present value of the costs of replacing Stage 2 airplanes with Stage 3 airplanes is \$11.2 billion for scenario 1 and \$10.2 billion for scenario 4B. As previously stated, these estimates include both the costs of the statutory ban as well as the costs of the final rule (in this case, the regulatory costs are about one-fourth the total costs). If costs had been estimated for each of the 17 carriers, the total cost estimates would have been somewhat higher.

Cost Analysis of Sections of the Rule

Sections 91.801, 91.851, 91.853, 91.855, and 91.861

Section 91.801 prescribes the applicability of operating noise limits

and related requirements for civil subsonic turbojet airplanes in the United States. Section 91.851 presents definitions that are used in this final rule. Section 91.853 specifies compliance requirements. Section 91.855 provides the rules for entry and nonaddition of Stage 2 airplanes. Section 91.861 defines the base level of Stage 2 airplanes for U.S. operators and foreign air carriers. None of these sections results in any incremental compliance costs.

Section 91.857 Airplanes imported to points outside the contiguous United States

This section states that an operator with an airplane that does not comply with Stage 3 noise levels and was imported into the 48 contiguous United States on or after November 5, 1990, must include in its operations specifications a statement that the airplane will not be used to provide air commerce to or from any airport in the 48 contiguous United States. In addition, to operate that airplane in the 48 contiguous United States for the purpose of maintenance, the operator must obtain a special flight authorization. The net present value cost of obtaining special flight authorizations for airline operators is expected to be \$2,300; cost to the FAA is expected to be \$7,400.

Section 91.859 Modification to meet Stage 3 noise levels

This provision allows any operator to apply for a special flight authorization for modification of Stage 2 airplanes otherwise prohibited from operating to or from an airport in the contiguous United States. This provision will allow individuals to obtain modifications to meet Stage 3 noise levels in the contiguous United States on or before December 31, 1999. The costs involved with obtaining this special authorization are covered under § 91.857 above.

Section 91.863 Transfer of airplanes with base level

Section 91.863 allows, under certain conditions, for Stage 2 airplanes to be transferred between operators and others with or without the corresponding amount of base level. It states the parameters under which transfers may occur. Because the transfer of airplanes between parties is considered a normal business decision, the FAA concludes that there will be no incremental compliance costs.

Section 91.863(c) requires that when a transfer of Stage 2 airplanes with base level occurs, the transferring and acquiring parties shall, within 10 days, jointly submit written notification of the transfer to the FAA. The FAA estimates

that 10 transfers will occur per year through 1999. The discounted total cost estimates of this provision to the industry will be \$710 and to the FAA will be \$660.

Section 91.867 Phased compliance for new entrants

Section 91.867 states the minimum Stage 3 percentage requirement for a new entrant's fleet. Due to the entry and nonaddition provisions of the statute and § 91.855, the number of Stage 2 airplanes operated in the United States is limited. Therefore, any costs associated with eliminating Stage 2 airplanes for new entrants have already been calculated in § 91.865. The costs attributable to new entrant foreign carriers are not included as a cost under this Regulatory Impact Analysis.

Section 91.869 Carry-forward compliance

Section 91.869 allows for any operator that exceeds the compliance requirements of § 91.865(b) by phasing out, modifying, or replacing more airplanes than is required at any interim compliance date to apply that number of airplanes to future compliance requirements. The cost savings associated with this provision have been identified earlier in compliance Scenario 3.

Section 91.871 Waivers from interim compliance requirements

This section will allow any U.S. operator or foreign air carrier subject to the requirements of §§ 91.865 or 91.867 to apply for a waiver from any of the interim compliance requirements. Applicants must show that a grant of waiver would be in the public interest and include certain information such as the number, type and age of Stage 2 airplanes for which a waiver is requested. The applicant must also show its current fleet, its balance sheet and cash flow position, and its good faith fleet conversion plan and equipment delivery position. The cost savings resulting from this provision are identified under scenario 3.

Section 91.873 Waivers from final compliance

This section permits U.S. operators to apply for a waiver, if by July 1, 1999, at least 85 percent of their individual fleets comply with the Stage 3 noise levels in part 36. U.S. operators must apply by January 1, 1999, and must include a plan with firm orders to ensure compliance not later than December 31, 2003. The Secretary may grant such a waiver if he finds that it is in the public interest. A waiver granted under this subsection

may not permit the operation of Stage 2 airplanes in the United States after December 31, 2003. This provision is a restatement of the statute. Because it is impossible to determine at this time the extent to which waivers from the final compliance requirement will be requested or granted, the FAA has not calculated estimated costs associated with processing such waivers.

Section 91.875 Annual progress reports

This section implements the statutory requirement that, beginning in calendar year 1992, each U.S. operator and foreign air carrier subject to § 91.865 or § 91.867 shall submit to the FAA, Office of Environment and Energy, an annual report on the progress that operator has made toward complying with the requirements of this regulation. These reports must be submitted no later than 45 days after the end of the calendar year. All progress reports must provide the information as it existed at the end of the calendar year. The FAA estimates the present value costs to the FAA for all reports over 10 years to be about \$414,000. In addition, the FAA estimates the present value of reporting costs over 10 years, for all carriers, to be about \$20,000.

Benefits

The principal benefit of this final rule is the reduction in the number of people living in the 65 decibel (dB) day-night sound level (DNL) contours around the nation's airports. In 1990, an estimated 2.7 million individuals were within the 65 DNL dB contours. By expected attrition of Stage 2 airplanes, this number would drop to 1.3 million by December 31, 1999. The eventual elimination of Stage 2 airplanes mandated by the statute is expected to reduce this number by an additional 900,000 to a total of 400,000 with an all Stage 3 airplane fleet. The noise reduction benefits attributed to this final rule are in addition to those resulting from the 1999 statutory deadline.

The final rule ensures that the expected benefits from steady attrition of Stage 2 airplanes during the 1990's are, in fact, realized. Even though the FAA projects a natural reduction to 1.3 million people affected (without the statute) by the year 2000 without the regulations, there is no guarantee that this would occur. From 1987 to 1990, the actual retirement of Stage 2 aircraft was much less than the projected attrition (Report to Congress: Status of the United States Stage 2 Commercial Aircraft Fleet, August 1989). The statute and regulation guarantee progress. The regulations should reduce the noise

impact that has caused a patchwork of restrictions on Stage 2 operations to be promulgated by local authorities at many U.S. airports. While difficult to quantify, numerous segments of the industry have alleged serious economic harm from complying with such restrictions. Further, the final rule costs must be considered in relation to the potentially sharply higher costs of probable local phaseout rules. For comparison, the FAA estimates that if the local restrictions proposed for Los Angeles International and nearby airports were applied on a national basis, the cost to the industry would be approximately \$500 million.

With the exception of the potential of noise-induced hearing loss at severe levels of noise exposure, there currently is no sound scientific basis for making adequate risk assessments of the non-auditory health effects of airplane noise in airport environs. Potential non-auditory health consequences of airplane noise exposure that have been alleged include birth defects, low birth weight, psychological problems, cancer, stroke, hypertension, and cardiac problems such as myocardial infarction and cardiac arrhythmias. The current state of technical knowledge does not support the inference of a direct relationship between airplane noise exposure and health consequences. At best, current findings, taken in sum, indicate only that further rigorous studies are needed to establish a linkage. Therefore, the benefits analysis does not assess the effects of noise reduction on health.

As a general hypothesis, noise levels are inversely correlated with residential property values. That is, as airplane noise levels decrease, it is surmised that property values around airports increase. To quantify the economic impact associated with the decrease in residential property values, the FAA has used a case study approach to provide a benchmark comparison of the expected benefits of rulemaking actions over an extended period of time. Based on a review of several statistical studies on the change in property values as they relate to airplane noise, it is not unreasonable to assume for evaluation purposes that property values increase one-half of one percent for every decibel decrease in DNL. Using this assumption, the FAA estimates that the net present value of the quantitative benefits associated with the statute of reducing the population exposed to a DNL of 65 dB or higher would be \$508 million. A statistical methodology was used to

arrive at this number. Current data on an airport-by-airport basis are not available to reflect adequately the actual effect that a reduction in noise may have.

For the different compliance scenarios, the FAA evaluated the incremental noise-reduction benefits to be \$42.4 million under scenario 1 and \$13.6 million under scenario 2. The incremental benefits were also calculated to be \$38.9 million under scenario 3, assuming interim compliance waivers, and \$41.2 million assuming carry-forward compliance credits. Finally, the benefits were calculated to be between \$16.1 and \$28.5 million for compliance scenario 4, depending upon the percentage of Stage 3 airplanes required at each compliance date. The benefits for scenario 5 were not calculated because estimates of the volume of transferable rights that would be transferred is highly speculative. The benefits under compliance scenario 5 would be no greater than the calculated benefits under scenario 1 assuming no credits are transferred. To the extent that credits would be transferred, the benefits would be lower.

Competitive Impact Analysis of the Phasein/Phaseout Option

This section analyzes the impact of scenarios 3 and 4 on competition in the airline industry. The components that will be discussed are: (1) The financial health of the U.S. airline industry, (2) an overview of competitive impact on the industry, (3) the ability of air carriers to achieve growth, (4) the impact on competition within the airline and cargo industries, (5) the impact on service to nonhubs and small communities, and (6) the impact on new entry into the airline industry.

1. The Financial Health of the U.S. Airline Industry

The financial condition of the U.S. airlines industry has deteriorated seriously in recent months. During the first quarter of calendar year (CY) 1991, commercial air carrier operating losses totaled over \$3.8 billion. Of the 12 major airlines, only Federal Express was profitable. (Major airlines are defined as those with revenues over \$1 billion.) Eight of these 12 major carriers, which include American and United, had operating losses ranging from slightly more than \$300 million to over \$550 million. These losses resulted primarily from reduced operating revenues due to the recent war in the Persian Gulf, coupled with a slowdown in the U.S. economy. Concerns about terrorism

created a reluctance on the part of a number of potential passengers to travel by air. The downturn in the demand for air travel created fierce competition among a number of major carriers that further suppressed revenues. The Persian Gulf crisis caused immediate and substantial increases in oil prices, which increased operating costs substantially. Of the 11 national airlines, only five were profitable during the first quarter. (National airlines are defined as those with annual revenues between \$100 million and \$1 billion.) Those five carriers posted profits ranging from \$100,000 to almost \$7.5 million. The six remaining carriers posted operating losses ranging from \$200,000 to \$51.5 million. Recent experience was similar to the last quarter of FY 1990, when 29 carriers posted operating losses totaling \$2 billion. Most of this financial assessment is based on information contained in the FAA report entitled, *Quarterly Industry Overview: 1st Half FY 1991, July 1991*, Office of Aviation Policy and Plans.

Shortly before the NPRM was issued, two major carriers filed for protection under Chapter 11 of the bankruptcy laws (Continental on December 3, 1990, and Pan American on January 8, 1991), and another major carrier filed for bankruptcy under Chapter 7 (Eastern ceased operations on January 19, 1991). After the release of the NPRM, two additional large airlines filed for Chapter 11 bankruptcy protection (Midway on March 25, 1991, and America West on June 27, 1991). On July 30, 1991, TWA announced plans for debt restructuring which included filing under Chapter 11 in early 1992.

While these results cause concern about its near-term financial condition, the industry is expected to recover to pre-Gulf war levels of activity and profitability. Since the operating loss experienced by the airline industry is attributable to factors that either no longer exist or are abating (the Persian Gulf war and the slowdown in the economy), a return to profitability is predicted, but not necessarily at the recovery pace of other sectors of the economy.

The recent losses represent a dramatic change for the U.S. airline industry, which operated at a profit each year from 1984 through 1989. The single exception was 1986 when industry data were distorted by large losses sustained by Pan American, Eastern, and People Express.

A majority of large carriers that operate today consistently earned

profits after the initial shakeout resulting from deregulation in the early 1980's. However, none were immune to the recent flux in market conditions. The FAA projects that the air carrier industry will become profitable again as the nation's economy recovers. It is reasonable to assume that the airline industry may not recover as rapidly as the general economy since much air travel is elective. The weakened financial condition of airlines will likely reduce the ability of some carriers to modernize their fleets and compete as effectively as others. Based on this analysis, a number of provisions were included to ensure the final rule does not further exacerbate the precarious financial position of several carriers and to provide a sufficiently flexible environment to comply with this rule as the industry as a whole recovers.

These flexibility elements include: (1) The option to comply by achieving a specified total fleet mix of Stage 2 and Stage 3 airplanes, or by eliminating Stage 2 airplanes on each compliance date, (2) interim compliance waivers, and (3) credit for extra compliance achieved carried forward to a later interim compliance date. The fleet mix option provides a standard for each operator to achieve final compliance through a transition to Stage 3 airplanes by ensuring that an increasing percentage of its fleet is composed of Stage 3 airplanes. Ultimately, all Stage 2 airplanes must be retired or modified to Stage 3 to achieve final compliance. The interim waiver provision provides flexibility for an operator to receive relief from interim compliance requirements in the event that noise abatement retrofit equipment is not available or the financial condition of an operator precludes compliance. The carry forward provision provides flexibility for operators that achieve extra compliance on the first or second interim compliance dates to carry forward that extra compliance to a later interim compliance date. Thus, operators have the flexibility to do more than required for an early compliance date for credit on a later compliance date. The result of these flexibility provisions in the final rule is a reduced cost of compliance as compared to the NPRM (scenario 1).

The estimated compliance costs comparisons for the three scenarios considered for the final rule are shown in the table below. For purposes of comparison, the table also presents the cost of the NPRM (scenario 1).

SUMMARY OF ESTIMATED FINAL RULE
COMPLIANCE COSTS
[1994-2000, 1990 Dollars]

Scenario	Hushkit costs	Replacement costs
1	\$307 million	\$1,506 million.
3	258 million	1,253 million.
4A.....	218 million	1,091 million.
4B.....	55 million.....	273 million.

Based on this analysis, the final rule is expected to have a significantly lower cost impact on operators of Stage 2 airplanes, as compared to requirements contained in the NPRM.

Despite the rule's significantly reduced costs compared to the NPRM, some airlines, including some financially stronger ones, still may have to divert funds from capacity expansion to compliance with the final rule. Given the weakened financial condition of the industry in general, and individual carriers in particular, as discussed above, it now seems likely that some air carriers will operate Stage 2 airplanes longer than 25 years, at least for the immediate future. Any assumption of average useful life of Stage 2 airplanes greater than 25 years drives the compliance cost estimates up dramatically. In view of this, and the current economic environment, the FAA concludes that for many carriers, the NPRM interim compliance schedule costs would have been prohibitive, with the likelihood that many air carriers would have been unable to comply, or that compliance would have significantly diminished their ability to effectively compete.

2. Overview of Competitive Impact

In the NPRM, the FAA stated that while the expected compliance cost of the proposed rule may contribute to forcing some carriers out of business, a reduction in the number of airlines offering scheduled passenger service might not significantly reduce either price or service competition within the industry. In February 1990, at the direction of the Secretary, a Department of Transportation task force released a comprehensive assessment of the state of airline competition. This assessment, entitled Secretary's Task Force on Competition in the U.S. Domestic Airline Industry (U.S. Department of Transportation, Office of the Secretary of Transportation, Volumes I-XI, February 1990), concluded that the domestic airline industry is competitive except in short haul markets involving higher density traffic hub airports.

However, these short-haul markets represent less than 5 percent of system traffic. The study also showed that the increase in national concentration has not resulted in a reduction in competitive pressures in city-pair markets, but rather has resulted in more competition as individual carriers expanded their systems from a regional to a national basis.

Moreover, the hub-and-spoke systems of service have led to the geographical expansion of most carriers and a resulting increase in city-pair competition. In other words, connecting services created by airport hubs allow more competitors in city-pair markets than would be possible with linear-type systems of service. This is particularly true for small traffic-generating points, and explains why they have been the prime beneficiaries of deregulation.

A basic issue raised by a forced conversion of Stage 2 airplanes to Stage 3 airplanes or early retirement of Stage 2 airplanes is whether this action would cause a reduction in competition. The answer depends on the number of carriers affected and the extent to which they are affected. The Department's competition study shows, however, that the national hub-and-spoke systems have enabled a relatively small number of carriers to provide more intense competitive service in most city-pair markets. On a city-pair basis, it does not take a large number of carriers to provide highly competitive service. This suggests that some loss of capacity by financially weaker carriers or the elimination of a financially weaker carrier may not have any significant lasting impact on competition at the city-pair level.

Recent information showed that the financial problems of the U.S. airline industry are far more serious than was apparent when the NPRM was drafted. Virtually all of the major carriers have sustained financial losses during CY 1990 and the three-month period ending March 31, 1991. Given this circumstance, the proposed interim compliance schedule would have significantly affected the ability of carriers to provide an acceptable level of service and would have increased the likelihood of more carriers filing for bankruptcy. Such events tend to erode competition in the industry. Based on this analysis, the final rule has been revised to be more flexible and less onerous financially than the NPRM and to ensure that competition in the U.S. airlines industry remains viable.

3. The Ability of Air Carriers To Achieve Capacity Growth Consistent With the Projected Rates of Growth for the Airline Industry

Had the requirements of the NPRM been implemented, fleet expansion may have been constrained. The NPRM focused only on the elimination of Stage 2 airplanes from the fleet with no specific credit for compliance by the addition of Stage 3 airplanes. Some air carriers were not planning to replace or convert their Stage 2 airplanes as early as is required by the statute. Also, in view of the recent operating losses incurred by most air carriers, many are not financially able to increase their fleets during the transition by replacing their entire Stage 2 airplane fleets prior to their planned retirement. In view of the current financial conditions of many air carriers, implementation of the NPRM requirements could have led to a seriously reduced growth rate for the U.S. airline industry.

The final rule incorporates flexibility to accommodate industry growth when the economy rebounds. The primary provision added to accommodate growth is the provision for compliance with the interim requirements by phasing in Stage 3 airplanes. This provision encourages air carriers to achieve growth along with compliance by adding Stage 3 airplanes to their fleets.

The lower costs of the final rule (compared to the NPRM) may also increase the industry's growth potential during the transition to Stage 3 airplanes. The interim waiver and carry-forward compliance provisions add the flexibility carriers need to grow during the transition period. The more flexibility added to the compliance rules, the less cost they impose on carriers, thereby increasing the availability of capital for growth.

4. The Impact of Competition Within the Air Passenger and Air Cargo Industries

At present, Stage 2 airplanes account for a significant percentage of most air carriers' fleets as is shown in Table 4-2. The range is from 34 percent to 100 percent, with over half of the carriers falling between 50 percent and 70 percent. Because of the disproportionate fleet mix of various carriers, the NPRM, which focused on compliance solely by the phaseout of Stage 2 airplanes, would have placed disparate burdens on certain air carriers. The differences among air carriers in the average age of their Stage 2 fleets may also result in

varying degrees of impact caused by aircraft retirement or replacement. Hence, a final rule which focuses solely on the elimination of Stage 2 airplanes would not be equitable in the relative burden imposed on carriers. The result would be a reduction in the ability of these carriers to compete.

In the air passenger industry, the percentage of Stage 2 airplanes in the fleets of the very large air carriers (American, United, and Delta) ranges from 34 percent to 54 percent. The average age of their Stage 2 airplanes ranges from 13 to 18 years. The smaller passenger carriers' fleets (Southwest, Midway, Alaska, etc.) range from 48 to 100 percent Stage 2, and the average age of these airplanes ranges from 10 to more than 22 years. Because of the recent bankruptcies in the air passenger industry and the estimated costs of implementing the NPRM requirements, the FAA has revised the final rule to reduce the potential cost burden on air carriers. Under the final rule, only five carriers will incur any regulatory costs. (By contrast, scenario 1 would impose costs on 15 air passenger carriers.) The four affected carriers are Delta, Eastern (no longer operating), Alaska, and Southwest; however, the cost burden to these carriers is significantly lower than what would have been incurred under scenario 1.

TABLE 4-1.—AIR CARRIERS WITH STAGE 2 AIRPLANES BY AGE

Air carriers	No. of stage 2 air-planes in fleet	Total no. of air-planes in fleet	Percent of stage 2 air-planes in fleet	Avg. age (yrs.)
Majors				
American	175	516	34	18
Continental	164	325	50	25
Delta	224	418	54	13
Eastern	119	169	70	17
Northwest	210	323	65	18
Pan Am	99	166	60	17
TWA	117	214	55	17
United	211	435	49	16
USAir	248	448	55	12
Nationals				
Alaska	36	59	62	12
America West	34	81	42	14
Hawaiian	17	24	71	18
Midway	56	66	85	22
Southwest	47	97	48	10

Source: U.S. Dept. of Transportation, Federal Aviation Administration, Office of Environment and Energy, April 1990.

TABLE 4-2.—AIR CARGO CARRIERS WITH STAGE 2 AIRCRAFT BY AGE

Air cargo carrier	No. of stage 2 air-planes in fleet	Total no. of air-planes in fleet	Percent of stage 2 air-planes in fleet	Avg. age (yrs.)
Airborne	37	41	90	21
Arrow Air	6	6	100	22
Burlington Air Express	15	15	100	23
DHL Worldwide	10	10	100	23
Emery Worldwide	52	59	88	23
Evergreen International	23	32	72	23
Federal Express	130	182	71	20
Southern Air Transport	4	4	100	21
UPS	42	104	40	21

Source: U.S. Dept. of Transportation, Federal Aviation Administration, Office of Environment and Energy, April 1990.

Competition in the air cargo industry would likely have been adversely affected by the implementation of the NPRM requirements. Among the large cargo carriers, Federal Express and UPS have 71 percent and 40 percent of their fleets, respectively, composed of Stage 2 airplanes that are subject to these regulations (as shown in Table 4-2). Some of the smaller air cargo carriers such as Burlington Air Express, DHL Worldwide, and Arrow Air have fleets that consist mostly of Stage 2 airplanes (also shown in Table 4-2). The relative cost of compliance with the NPRM requirements would have been higher for these smaller air cargo carriers (as a percent of net worth) than for Federal Express or UPS since the smaller air cargo carriers would have had to replace or install noise abatement retrofit equipment sooner on a greater percentage of their fleets. Under scenario 1, some of these smaller carriers, lacking sufficient capital for conversion to Stage 3, may have had to reduce the size of their fleets or even leave the industry, possibly resulting in the two large air cargo carriers increasing their market share.

The FAA concluded that implementing the proposed phaseout compliance schedule would have had a disproportionate impact on the air cargo industry, possibly reducing competition

to an unacceptable level. The final rule was revised to provide flexibility to cargo carriers to comply without threatening the current level of competition.

5. *The Impact on Nonhub and Small Community Air Service*

The hub-and-spoke system of service enables carriers to compete for very small volumes of traffic. This is the principal reason that smaller communities have been the prime beneficiaries of deregulation. These communities will continue to receive competitive service even if additional concentration occurs at the national level.

The final rule is expected to have little or no effect on nonhub and small communities through the provisions that reduce the financial impact of the rule on domestic air carriers, as compared to the NPRM. The rule adds flexibility in achieving compliance. Noise abatement retrofit equipment will soon be available for virtually all of the Stage 2 airplanes now in use. Thus, operators will not be forced to replace the Stage 2 airplanes in their fleets with Stage 3 airplanes to achieve compliance. They may instead choose the less costly option of modifying their Stage 2 airplanes to comply with Stage 3 noise levels.

The final rule will have little impact on nonhub and small communities even if noise abatement retrofit equipment does not become available as expected. A large proportion of the service provided to such communities is provided with commuter airplanes, most of which are not subject to the final rule, since their maximum certificated weight is less than 75,000 pounds. Of the 374 nonhub communities, only 64 are now served with as many as 2 round trips a day, 6 days per week, by Stage 2 airplanes that are subject to the final rule. (The original nonhub estimate of 66 in the NPRM has been corrected to 64 because 2 communities were double counted.) During 1989, these 64 communities had approximately 600,000 departures, with only 1 out of every 5 departures provided by a Stage 2 airplane subject to the final rule.

Many of these communities also receive service to several alternative hubs by different carriers. Because most traffic from small communities moves beyond the various connecting hubs, a decrease in service at any given hub will generally not affect many local passengers traveling to cities served by that hub. For example, most city-pair markets involving Akron, Ohio, have very small traffic volumes. Nevertheless, Akron, which is a nonhub, receives service to 7 different connecting airport hubs by 6 different U.S. carriers. If a

carrier discontinued service to Akron, the remaining carriers would likely continue to compete for most connecting passengers. Moreover, should an air carrier choose to stop providing service to a nonhub city like Akron, another air carrier is likely to reinstate service with complying airplanes.

6. *The Impact on New Entry Into the Airline Industry*

Many factors affect new entry into the airline industry. These factors include the ability to raise the necessary capital, the cost of airplanes, passenger gates, gaining priority listing on reservation systems, and operating and maintenance costs (e.g., labor and fuel). Comparatively, the added costs of the final rule are a small percentage of the total cost of entry. Thus, the cost of compliance of the final rule is not expected to discourage new entrants into the industry.

The final rule provides new entrants with somewhat more flexibility than established air carriers. The percentage of Stage 3 airplanes required for compliance is lower for new entrants than the percentage required for established air carriers for the 1994 and 1996 compliance dates (25 percent of a new entrant's airplanes have to be Stage 3 by 1994 and 50 percent by 1996). A new entrant may initiate service with any number of Stage 2 airplanes and build its fleet by acquiring used airplanes and installing noise abatement retrofit equipment, as necessary to achieve compliance on each interim date. At the time of this analysis, there were about 170 Stage 3 and 600 Stage 2 airplanes available for sale or lease. The market price ranges from \$3 million to \$9 million for used narrow-body Stage 2 airplanes and from \$14 million to \$69 million for wide-body Stage 2 airplanes. Market prices for Stage 3 airplanes range from \$12 million to \$47 million for narrow-body airplanes and from \$50 to \$130 million for wide-body airplanes. Once established and operating, a new entrant may apply for interim waivers, subject to the same criteria applicable to established operators.

Regulatory Flexibility Determination

The Regulatory Flexibility Act of 1980 (RFA; 5 U.S.C. 601 *et seq.*) was enacted by Congress to ensure that small entities are not unnecessarily and disproportionately burdened by government regulations. The RFA requires agencies to review rules that may have "a significant economic impact on a substantial number of small entities." Small entities are independently owned and operated small businesses and small not-for-profit organizations. According to the FAA's

Order on Regulatory Flexibility Criteria and Guidance, a small operator of airplanes for hire is one that owns, but does not necessarily operate, nine or fewer airplanes. The Order also defines a substantial number of small entities as a number that is not less than 11 and that is more than one-third of the small entities subject to the rule. The small entities that will be affected by this rule are the operators of Stage 2 civil subsonic airplanes with maximum weights of more than 75,000 pounds that operate in the contiguous United States.

The FAA has considered the impact on small entities and has written several provisions that address their concerns. Sections 91.865 and 91.867 allow for rounding of calculations resulting in fractions to permit the continued operation of the next whole number of Stage 2 airplanes. Therefore, a small operator with only one Stage 2 airplane may operate that airplane through 1999.

Also, §§ 91.871 and 91.873, waivers from interim compliance requirements and final compliance, afford more flexibility to small operators than to large operators. A small operator with few airplanes may not be financially able to convert its fleet within the prescribed time frame and remain economically viable. These provisions allow the FAA to consider the disproportionate financial impact that phased compliance could have on small entities so that they may remain economically viable.

There are about 115 U.S. airlines and private operators that operate more than 4,000 jet airplanes over 75,000 pounds. Fleet sizes range from one to several hundred. Many of the fleets and many of the airplanes in these fleets were either manufactured as Stage 3 or converted to Stage 3. About 2,300 Stage 2 airplanes are affected by the statute and final rule. Many affected airplanes are not owned by the carriers under whose names they operate. These leased airplanes are owned by other air carriers, banks, insurance companies, and leasing companies. Operators of only one Stage 2 airplane are exempt from compliance with the phased elimination because of the rounding provision.

The FAA has identified 12 air carriers (five nationals and seven regionals) that own fewer than nine Stage 2 airplanes. These carriers own a total of 37 Stage 2 airplanes. Four of these carriers own one Stage 2 airplane each. Through rounding of calculations, they are allowed to operate those airplanes through December 31, 1999. The eight other air carriers with fewer than nine Stage 2 airplanes are subject to the proposed transition regulations.

Most affected private operators own only one airplane. They are unaffected by the phased compliance schedule because of the rounding rule. Of the six operators that own more than one airplane, one owns two DC-8's that have been modified to comply with Stage 2 noise standards. The other five are very large companies.

For the reasons stated above, the FAA concludes that the final rule does not affect a substantial number of small air carrier entities as defined in the FAA's Regulatory Flexibility Criteria and Guidance.

International Trade Impact

The final rule is expected to have little or no impact on trade opportunities of U.S. firms conducting business overseas or for foreign firms conducting business in the United States. The rule will impose the same requirements on both domestic air carriers operating under part 121, 125, or 135 of the FAR and foreign air carriers subject to part 129 of the FAR. The cost of compliance to foreign air carriers flying into the United States under part 129 will probably be similar to the cost incurred by domestic operators. In addition, other countries are also eliminating Stage 2 airplanes. Therefore, the regulations will not cause a competitive fare disadvantage for U.S. carriers operating overseas or for foreign carriers operating in the United States.

Environmental Analysis

This rule implements section 9308 of the Airport Noise and Capacity Act of 1990, which directs the Secretary of Transportation to promulgate final rules for the phaseout of Stage 2 airplane operations. The National Environmental Policy Act (NEPA, 42 U.S.C. 4321), requires all federal agencies "to the fullest extent possible" to include in "major Federal actions significantly affecting the quality of the human environment" an environmental impact statement analyzing the consequences of, and alternatives to, the proposed action. Under applicable guidelines of the President's Council on Environmental Quality and agency procedures implementing NEPA, absent extraordinary circumstances, the FAA normally prepares an environmental assessment to determine the potential impacts of a proposed regulation that may affect the human environment (40 CFR 1501.3, FAA Order 1050.1D, Appendix 7, Par. 3(a)). Since this regulation is a federal action subject to NEPA, the FAA has determined its potential impacts by preparing an environmental assessment (EA).

The 1990 statute only affords the Secretary discretion to set the interim dates for the transition to an all Stage 3 fleet; the fleet composition to require on these dates; and the method of implementation. Other provisions of this statute were not included in the EA since the Secretary has no discretionary authority to take any alternative action.

This rule is intended to establish a national standard ensuring a steady decline in aviation noise over the next decade, while providing sufficient flexibility for continued growth of the national aviation system. The regulation will provide substantial noise relief to persons throughout the United States living near airports or under flight paths. Negligible increases in fuel consumption and air and water pollution from airplane emissions may result from compliance with the rule. Beneficial impacts would occur to those communities near airports or under flight paths. As a result of the review of studies in the regulatory evaluation, the impact of aircraft noise intrusion on the human and natural environment would be reduced.

After examination of the EA, the FAA has determined that no thresholds indicating the potential for significant impact were exceeded and an environmental impact statement is not required.

Pursuant to Department of Transportation "Policies and Procedures for Considering Environmental Impacts" (FAA Order 1050.1D), a Finding of No Significant Impact has been prepared and placed in the public docket. This final rule has no significant impact when compared to the impacts on environmental quality that result from a transition to Stage 3 airplanes on the basis of normal attrition of Stage 2 airplanes.

Paperwork Reduction Act

Reporting requirements proposed in the NPRM and incorporated in § 91.875 have been approved by the Office of Management and Budget under the provisions of the Paperwork Reduction Act of 1990 (44 U.S.C. 3501 *et seq.*). Additional part 91 reporting requirements and modifications to the approved requirements have been submitted to OMB for review and will become effective when approved by OMB.

Federalism Implications

The regulations herein will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels

of government. Therefore, in accordance with Executive Order 12612, it is determined that this proposal do not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

Conclusion

The transition to an all Stage 3 fleet is an integral part of the national aviation noise policy envisioned by Congress in enacting the Airport Noise and Capacity Act of 1990. That statute required the Secretary to develop a schedule of phased-in compliance beginning November 5, 1990. In addition, there is significant public interest in this transition rule and an urgent need by Stage 2 airplane operators to begin planning their compliance. Accordingly, the FAA has determined that good cause exists for making these regulations effective in fewer than 30 days.

For the reasons discussed throughout this preamble, and based on the findings in the Regulatory Impact Analysis and the International Trade Impact Analysis, the FAA has determined that this rule is a major rule under Executive Order 12291. In addition, in consideration of the cost information discussed under the Regulatory Flexibility Determination, it is certified that this amendment to part 91 will not have a significant economic impact on a substantial number of small entities in the air carrier industry. This rule is considered significant under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). The final Regulatory Impact Analysis of this rule, including a Regulatory Flexibility Determination and International Trade Impact Analysis, has been placed in the docket. A copy may be obtained by contacting the FAA's Office of Rulemaking at (202) 267-9677.

List of Subjects in 14 CFR Part 91

Aircraft, Airports, Aviation safety, Noise control, Reporting and recordkeeping requirements.

The Amendment

Accordingly, the FAA amends 14 CFR part 91 of the Federal Aviation Regulations as follows:

PART 91—GENERAL OPERATING AND FLIGHT RULES

1. The authority citation for part 91 is revised to read as follows:

Authority: 49 U.S.C. 1301(7), 1303, 1344, 1348, 1352 through 1355, 1401, 1421 through 1431, 1471, 1472, 1502, 1510, 1522, and 2121 through 2125; 49 U.S.C. App. 2157, 2158; Articles 12, 29, 31, and 32(a) of the Convention on International Civil Aviation

(61 Stat. 1130); 42 U.S.C. 4321 et. seq.; E.O. 11514; 49 U.S.C. 106(g).

2. Section 91.801 is amended by adding a new paragraph (c) to read as follows:

§ 91.801 Applicability: Relation to part 36.

(c) Sections 91.851 through 91.875 of this subpart prescribe operating noise limits and related requirements that apply to any civil subsonic turbojet airplane with a maximum certificated weight of more than 75,000 pounds operating to or from an airport in the 48 contiguous United States and the District of Columbia under this part, part 121, 125, 129, or 135 of this chapter on and after September 25, 1991.

3. New §§ 91.851, 91.853, 91.855, 91.857, 91.859, 91.861, 91.863, 91.865, 91.867, 91.869, 91.871, 91.873 and 91.875 are added to read as follows:

§ 91.851 Definitions.

For the purposes of § 91.851 through 91.875 of this subpart:

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

Fleet means those civil subsonic 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.

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.

New entrant means an air carrier or foreign air carrier that, on or before November 5, 1990, did not conduct operations under part 121, 125, 129, or 135 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.

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 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 2 airplane means a civil subsonic 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 3 airplane means a civil subsonic 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.

§ 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 noise levels.

§ 91.855 Entry and nonaddition rule.

No person may operate any airplane subject to § 91.801(c) of this subpart to or from an airport in the contiguous United States unless one or more of the following apply:

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

(b) The airplane complies with Stage 2 noise levels and was owned by a U.S. person on and since November 5, 1990. Stage 2 airplanes that meet these criteria and are leased to foreign airlines are also subject to the return provisions of paragraph (e) of this section.

(c) The airplane complies with Stage 2 noise levels, is owned by a non-U.S. person, and is the subject of a binding lease to a U.S. person effective before and on September 25, 1991. Any such airplane may be operated for the term of the lease in effect on that date, and any extensions thereof provided for in that lease.

(d) The airplane complies with Stage 2 noise levels and is operated by a foreign air carrier.

(e) The airplane complies with Stage 2 noise levels and is operated by a foreign operator other than for the purpose of foreign air commerce.

(f) The airplane complies with Stage 2 noise levels and—

(1) On November 5, 1990, was owned by:

(i) A corporation, trust, or partnership organized under the laws of the United States or any State (including individual States, territories, possessions, and the District of Columbia);

(ii) An individual who is a citizen of the United States; or

(iii) An entity owned or controlled by a corporation, trust partnership, or

individual described in paragraph (g)(1) (i) or (ii) of this section; and

(2) Enters into the United States not later than 6 months after the expiration of a lease agreement (including any extensions thereof) between an owner described in paragraph (f)(1) of this section and a foreign airline.

(g) The airplane complies with Stage 2 noise levels and was purchased by the importer under a written contract executed before November 5, 1990.

(h) Any Stage 2 airplane described in this section is eligible for operation in the contiguous United States only as provided under § 91.865 or 91.867.

§ 91.857 Airplanes imported to points outside the contiguous United States.

An operator of a Stage 2 airplane that was imported into a noncontiguous State, territory, or possession of the United States on or after November 5, 1990, shall:

(a) Include in its operations specifications a statement that such airplane may not be used to provide air transportation to or from any airport in the contiguous United States.

(b) Obtain a special flight authorization to operate that airplane into the contiguous United States for the purpose of maintenance. The special flight authorization must include a statement indicating that this regulation is the basis for the authorization.

§ 91.859 Modification to meet Stage 3 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 noise levels.

§ 91.861 Base level.

(a) U.S. Operators. The base level of a U.S. operator is equal to the number of owned or leased Stage 2 airplanes subject to § 91.801(c) of this subpart that were listed on that operator's operations specifications for operations to or from airports in the contiguous United States on any one day selected by the operator during the period January 1, 1990, through July 1, 1991, plus or minus adjustments made pursuant to paragraphs (a) (1) and (2).

(1) The base level of a U.S. operator shall be increased by a number equal to the total of the following—

(i) The number of Stage 2 airplanes returned to service in the United States pursuant to § 91.855(f);

(ii) The number of Stage 2 airplanes purchased pursuant to § 91.855(g); and

(iii) Any U.S. operator base level acquired with a Stage 2 airplane transferred from another person under § 91.863.

(2) The base level of a U.S. operator shall be decreased by the amount of U.S. operator base level transferred with the corresponding number of Stage 2 airplanes to another person under § 91.863.

(b) Foreign air carriers. The base level of a foreign air carrier is equal to the number of owned or leased Stage 2 airplanes on U.S. operations specifications on any one day during the period January 1, 1990, through July 1, 1991, plus or minus any adjustments to the base levels made pursuant to paragraphs (b) (1) and (2).

(1) The base level of a foreign air carrier shall be increased by the amount of foreign air carrier base level acquired with a Stage 2 airplane from another person under § 91.863.

(2) The base level of a foreign air carrier shall be decreased by the amount of foreign air carrier base level transferred with a Stage 2 airplane to another person under § 91.863.

(c) New entrants do not have a base level.

§ 91.863 Transfers of Stage 2 airplanes with base level.

(a) Stage 2 airplanes may be transferred with or without the corresponding amount of base level. Base level may not be transferred without the corresponding number of Stage 2 airplanes.

(b) No portion of a U.S. operator's base level established under § 91.861(a) may be used for operations by a foreign air carrier. No portion of a foreign air carrier's base level established under § 91.861(b) may be used for operations by a U.S. operator.

(c) Whenever a transfer of Stage 2 airplanes with base level occurs, the transferring and acquiring parties shall, within 10 days, jointly submit written notification of the transfer to the FAA, Office of Environment and Energy. Such notification shall state:

(1) The names of the transferring and acquiring parties;

(2) The name, address, and telephone number of the individual responsible for submitting the notification on behalf of the transferring and acquiring parties;

(3) The total number of Stage 2 airplanes transferred, listed by airplane type, model, series, and serial number;

(4) The corresponding amount of base level transferred and whether it is U.S. operator or foreign air carrier base level; and

(5) The effective date of the transaction.

(d) If, taken as a whole, a transaction or series of transactions made pursuant to this section does not produce an increase or decrease in the number of Stage 2 airplanes for either the acquiring or transferring operator, such transaction or series of transactions may not be used to establish compliance with the requirements of § 91.865.

§ 91.865 Phased compliance for operators with base level.

Except as provided in paragraph (a) of this section, each operator that operates an airplane under part 91, 121, 125, 129, or 135 of this chapter, regardless of the national registry of the airplane, shall comply with paragraph (b) or (d) of this section at each interim compliance date with regard to its subsonic airplane fleet covered by § 91.801(c) of this subpart.

(a) This section does not apply to new entrants covered by § 91.867 or to foreign operators not engaged in foreign air commerce.

(b) Each operator that chooses to comply with this paragraph pursuant to any interim compliance requirement shall reduce the number of Stage 2 airplanes it operates that are eligible for operation in the contiguous United States to a maximum of:

(1) After December 31, 1994, 75 percent of the base level held by the operator;

(2) After December 31, 1996, 50 percent of the base level held by the operator;

(3) After December 31, 1998, 25 percent of the base level held by the operator.

(c) Except as provided under § 91.871, the number of Stage 2 airplanes that must be reduced at each compliance date contained in paragraph (b) of this section shall be determined by reference to the amount of base level held by the operator on that compliance date, as calculated under § 91.861.

(d) Each operator that chooses to comply with this paragraph pursuant to any interim compliance requirement shall operate a fleet that consists of:

(1) After December 31, 1994, not less than 55 percent Stage 3 airplanes;

(2) After December 31, 1996, not less than 65 percent Stage 3 airplanes;

(3) After December 31, 1998, not less than 75 percent Stage 3 airplanes.

(e) Calculations resulting in fractions may be rounded to permit the continued operation of the next whole number of Stage 2 airplanes.

§ 91.867 Phased compliance for new entrants.

(a) New entrant U.S. air carriers.

(1) A new entrant initiating operations under part 121, 125, or 135 of this chapter on or before December 31, 1994, may initiate service without regard to the percentage of its fleet composed of Stage 3 airplanes.

(2) After December 31, 1994, at least 25 percent of the fleet of a new entrant must comply with Stage 3 noise levels.

(3) After December 31, 1996, at least 50 percent of the fleet of a new entrant must comply with Stage 3 noise levels.

(4) After December 31, 1998, at least 75 percent of the fleet of a new entrant must comply with Stage 3 noise levels.

(b) New entrant foreign air carriers.

(1) A new entrant foreign air carrier initiating part 129 operations on or before December 31, 1994, may initiate service without regard to the percentage of its fleet composed of Stage 3 airplanes.

(2) After December 31, 1994, at least 25 percent of the fleet on U.S. operations specifications of a new entrant foreign air carrier must comply with Stage 3 noise levels.

(3) After December 31, 1996, at least 50 percent of the fleet on U.S. operations specifications of a new entrant foreign air carrier must comply with Stage 3 noise levels.

(4) After December 31, 1998, at least 75 percent of the fleet on U.S. operations specifications of a new entrant foreign air carrier must comply with Stage 3 noise levels.

(c) Calculations resulting in fractions may be rounded to permit the continued operation of the next whole number of Stage 2 airplanes.

§ 91.869 Carry-forward compliance.

(a) Any operator that exceeds the requirements of paragraph (b) of § 91.865 of this part on or before December 31, 1994, or on or before December 31, 1996, may claim a credit that may be applied at a subsequent interim compliance date.

(b) Any operator that eliminates or modifies more Stage 2 airplanes pursuant to § 91.865(b) than required as of December 31, 1994, or December 31, 1996, may count the number of additional Stage 2 airplanes reduced as a credit toward—

(1) The number of Stage 2 airplanes it would otherwise be required to reduce following a subsequent interim compliance date specified in § 91.865(b); or

(2) The number of Stage 3 airplanes it would otherwise be required to operate in its fleet following a subsequent interim compliance date to meet the percentage requirements specified in § 91.865(d).

§ 91.871 Waivers from interim compliance requirements.

(a) Any U.S. operator or foreign air carrier subject to the requirements of §§ 91.865 or 91.867 of this subpart may request a waiver from any individual compliance requirement.

(b) Applications must be filed with the Secretary of Transportation at least 120 days prior to the compliance date from which the waiver is requested.

(c) Applicants must show that a grant of waiver would be in the public interest, and must include in its application its plans and activities for modifying its fleet, including evidence of good faith efforts to comply with the requirements of § 91.865 or § 91.867. The application should contain all information the applicant considers relevant, including, as appropriate, the following:

(1) The applicant's balance sheet and cash flow positions;

(2) The composition of the applicant's current fleet; and

(3) The applicant's delivery position with respect to new airplanes or noise-abatement equipment.

(d) Waivers will be granted only upon a showing by the applicant that compliance with the requirements of §§ 91.865 or 91.867 at a particular interim compliance date is financially onerous, physically impossible, or technologically infeasible, or that it would have an adverse effect on competition or on service to small communities.

(e) The conditions of any waiver granted under this section shall be determined by the circumstances presented in the application, but in no case may the term extend beyond the next interim compliance date.

(f) A summary of any request for a waiver under this section will be published in the *Federal Register*, and public comment will be invited. Unless the Secretary finds that circumstances require otherwise, the public comment period will be at least 14 days.

§ 91.873 Waivers from final compliance.

(a) A U.S. air carrier may apply for a waiver from the prohibition contained in § 91.853 for its remaining Stage 2 airplanes, provided that, by July 1, 1999, at least 85 percent of the airplanes used by the carrier to provide service to or from an airport in the contiguous United States will comply with the Stage 3 noise levels.

(b) An application for the waiver described in paragraph (a) of this section must be filed with the Secretary of Transportation no later than January 1, 1999. Such application must include a plan with firm orders for replacing or

modifying all airplanes to comply with Stage 3 noise levels at the earliest practicable time.

(c) To be eligible to apply for the waiver under this section, a new entrant U.S. air carrier must initiate service no later than January 1, 1999, and must comply fully with all provisions of that section.

(d) The Secretary may grant a waiver under this section if the Secretary finds that granting such waiver is in the public interest. In making such a finding, the Secretary shall include consideration of the effect of granting such waiver on competition in the air carrier industry and the effect on small community air service, and any other information submitted by the applicant that the Secretary considers relevant.

(e) The term of any waiver granted under this section shall be determined by the circumstances presented in the application, but in no case will the waiver permit the operation of any Stage 2 airplane covered by this subchapter in the contiguous United States after December 31, 2003.

(f) A summary of any request for a waiver under this section will be published in the *Federal Register*, and public comment will be invited. Unless the secretary finds that circumstances require otherwise, the public comment period will be at least 14 days.

§ 91.875 Annual progress reports.

(a) Each operator subject to § 91.865 or § 91.867 of this chapter shall submit an annual report to the FAA, Office of Environment and Energy, on the progress it has made toward complying with the requirements of that section. Such reports shall be submitted no later than 45 days after the end of a calendar year. All progress reports must provide the information through the end of the calendar year, be certified by the carrier as true and complete (under penalty of 18 U.S.C. 1001), and include the following information:

(1) The name and address of the operator;

(2) The name, title, and telephone number of the person designated by the operator to be responsible for ensuring the accuracy of the information in the report;

(3) The operator's progress during the reporting period toward compliance with the requirements of § 91.863, § 91.865 or § 91.867. For airplanes on U.S. operations specifications, each operator shall identify the airplanes by type, model, series, and serial number.

(i) Each Stage 2 airplane added or removed from operation or U.S. operations specifications (grouped

separately by those airplanes acquired with and without base level);

(ii) Each Stage 2 airplane modified to Stage 3 noise levels (identifying the manufacturer and model of noise abatement retrofit equipment);

(iii) Each Stage 3 airplane on U.S. operations specifications as of the last day of the reporting period; and

(iv) For each Stage 2 airplane transferred or acquired, the name and address of the recipient or transferor; and, if base level was transferred, the person to or from whom base level was transferred or acquired pursuant to Section 91.863 along with the effective date of each base level transaction, and the type of base level transferred or acquired.

(b) Each operator subject to § 91.865 or § 91.867 of this chapter shall submit an initial progress report covering the period from January 1, 1990, through December 31, 1991, and provide:

(1) For each operator subject to § 91.865:

(i) The date used to establish its base level pursuant to § 91.861(a); and

(ii) a list of those Stage 2 airplanes (by type, model, series and serial number) in its base level, including adjustments made pursuant to § 91.861 after the date its base level was established.

(2) For each U.S. operator:

(i) A plan to meet the compliance schedules in § 91.865 or § 91.867 and the final compliance date of § 91.853, including the schedule for delivery of replacement Stage 3 airplanes or the installation of noise abatement retrofit equipment; and

(ii) A separate list (by type, model, series, and serial number) of those airplanes included in the operator's base level, pursuant to § 91.861(a)(1) (i) and (ii), under the categories "returned" or "purchased," along with the date each was added to its operations specifications.

(c) Each operator subject to § 91.865 or § 91.867 of this chapter shall submit subsequent annual progress reports covering the calendar year preceding the report and including any changes in the information provided in paragraphs (a) and (b) of this section; including the use of any carry-forward credits pursuant to § 91.869.

(d) An operator may request, in any report, that specific planning data be considered proprietary.

(e) If an operator's actions during any reporting period cause it to achieve compliance with § 91.853, the report should include a statement to that effect. Further progress reports are not required unless there is any change in the

information reported pursuant to paragraph (a) of this section.

(f) For each U.S. operator subject to § 91.865, progress reports submitted for calendar years 1994, 1996, and 1998, shall also state how the operator achieved compliance with the requirements of that section, i.e.—

(1) By reducing the number of Stage 2 airplanes in its fleet to no more than the maximum permitted percentage of its base level under § 91.865(b), or

(2) By operating a fleet that consists of at least the minimum required percentage of Stage 3 airplanes under § 91.865(d).

Issued in Washington, DC on September 19, 1991.

James B. Busey,

Administrator.

[FR Doc. 91-22950 Filed 9-24-91; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

14 CFR Part 161

[Docket No. 26432]

RIN 2120-AD98

Notice and Approval of Airport Noise and Access Restrictions

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This final rule establishes a program for reviewing airport noise and access restrictions on the operations of Stage 2 and Stage 3 aircraft. This rule is in response to specific provisions in the Airport Noise and Capacity Act of 1990 and is a major element of the national aviation noise policy required by that statute.

EFFECTIVE DATE: September 25, 1991.

FOR FURTHER INFORMATION CONTACT:

John M. Rodgers, Office of Aviation Policy and Plans, Federal Aviation Administration, 800 Independence Avenue SW., Washington, DC 20591; telephone (202) 267-3274.

SUPPLEMENTARY INFORMATION:

Background

On February 25, 1991, the FAA issued Notice of Proposed Rulemaking (NPRM) 91-8 (56 FR 8644, February 28, 1991). Notice No. 91-8 was developed in response to Public Law 101-508, entitled Airport Noise and Capacity Act of 1990 ("the Act"), which was enacted November 5, 1990. Section 9304 of the Act directs the Secretary of Transportation to develop a national program to review proposed airport

noise and access restrictions on the operations of Stage 2 and Stage 3 aircraft.

In addition to soliciting written comments, the FAA held three public meetings pertaining to FAA rulemaking to implement provisions of the Act. The meetings were held on March 5 and 6 in Washington, DC (Alexandria, VA); March 11 and 12 in Chicago, IL; and March 14 and 15 in Seattle, WA.

Discussion of Comments

General

More than 400 individuals and organizations submitted comments on the proposal. Many organizations submitted multiple comments. Comments were submitted by airport operators, airport associations, air carriers, air carrier associations, aircraft operators, aircraft operator and pilot associations, environmental groups and community civic organizations, businesses and business organizations, and aircraft manufacturers.

Identification of commenters varies in each discussion according to the diversity of opinions within a group of commenters. That is, where groups or classes of commenters reflect very similar views, such as airport operators or noise groups, further identification other than class is not provided. However, where greater divergence of opinion occurs within a class of commenters, greater specificity in identification of commenters is given.

A discussion of the issues addressed by the commenters follows.

Major Issues

A review of comments on the proposed rule revealed seven general issues that influence the approach to the requirements for notice, analysis, and review of noise and access restrictions embodied in the rule. Because of the pervasive impact of these topics, a separate discussion of comments is provided below on each of the general issues. After these general issues are reviewed, a discussion of comments is provided by rule subpart that also references, as appropriate, issues contained in the discussion of general issues.

Total Versus Partial Approval/Disapproval of Proposed Restrictions on Stage 3 Aircraft, and Approval/Disapproval of Proposed Stage 3 Alternative Restrictions

Notice No. 91-8 proposed FAA approval of restrictions in whole only, but the preamble requested comments on approval of alternative proposals submitted (with order of preference

indicated) with the applicant's primary proposal.

Comments: This issue generated relatively little comment, but comments generally support issuing partial approval of proposed restrictions and permitting the airport operator to submit alternative restrictions. Supporters of partial approvals include a major airport operator, the operator of a smaller commercial service airport, and a group of communities affected by noise at a large hub airport. Another airport operator specifically endorsed a final rule that would permit the airport operator to specify alternatives.

Response: After FAA consideration of these comments, the rule is revised to permit airport operator submission of an application with alternative restrictions for approval. The rule also provides for FAA approval of restrictions in whole or in part. In the case of a partial approval, as with other approvals, the airport operator would decide whether to implement the restriction as approved by the FAA. The airport operator would have the discretion to correct those aspects of its restriction that the FAA disapproved under the rule and to submit a new application. The process for partial approval and for airport operator requests for approval of alternative restrictions is discussed in connection with subpart D below.

These changes to the final rule are intended to provide additional flexibility to the airport operator and to the FAA. The FAA considers this flexibility to be consistent with the purpose of the Act—to assure that a proper balance has been struck between local needs and the needs of commerce and the national air transportation system.

Under the final rule, the Administrator will be able to approve part or most of an access restriction plan and permit some relief to airport neighbors even though other elements of the plan may be inconsistent with the Act or otherwise impermissible. Under the proposed rule, the Administrator would have been obligated to reject a proposed local restriction on Stage 3 aircraft in its entirety even if only a minor feature was unacceptable. Such a disapproval, in some cases, would have needlessly deprived airport neighbors of some of the benefits of the proposed restriction that may be obtained by partial implementation of the proposal.

The ability of the FAA to approve portions of a proposal will also relieve the airport of the need to start the 180-day review period again, with a new proposal incorporating the approvable elements of a previously disapproved proposal. Similarly, allowing submission