

moderate ozone nonattainment area which consists of Kenton, Boone, and Campbell Counties is approved. The date for attaining the ozone standard in these counties is November 15, 1998.

3. Section 52.1885 is amended by adding paragraph (cc) to read as follows:

**§ 52.1885 Control strategy: Ozone.**

\* \* \* \* \*

(cc) Ohio's November 14, 1997, request for a one-year attainment date

extension for the Ohio portion of the Cincinnati-Hamilton metropolitan moderate ozone nonattainment area which consists of Hamilton, Butler, Clermont and Warren Counties is approved. The date for attaining the ozone standard in these counties is November 15, 1998.

**PART 81—[AMENDED]**

1. The authority citation for part 81 continues to read as follows:

**Authority:** 42 U.S.C. 7401 *et seq.*

2. In § 81.318, the "Kentucky—Ozone" table is amended by revising the entry for the "Cincinnati-Hamilton Area" to read as follows:

**§ 81.318 Kentucky.**

\* \* \* \* \*

**KENTUCKY—OZONE**

Designated area	Designation		Classification	
	Date <sup>1</sup>	Type	Date <sup>1</sup>	Type
Cincinnati-Hamilton Area:				
Boone County .....	.....	Nonattainment .....	.....	Moderate. <sup>2</sup>
Campbell County .....	.....	Nonattainment .....	.....	Moderate. <sup>2</sup>
Kenton County .....	.....	Nonattainment .....	.....	Moderate. <sup>2</sup>
* * * * *				

<sup>1</sup> This date is November 15, 1990, unless otherwise noted.

<sup>2</sup> Attainment date extended to November 15, 1998.

\* \* \* \* \*

3. In section 81.336, the "Ohio—Ozone" table is amended by revising the

entry for the "Cincinnati-Hamilton Area" to read as follows:

**§ 81.336 Ohio.**

\* \* \* \* \*

**OHIO—OZONE**

Designated area	Designation		Classification	
	Date <sup>1</sup>	Type	Date <sup>1</sup>	Type
* * * * *				
Cincinnati-Hamilton Area:				
Butler County .....	.....	Nonattainment .....	.....	Moderate. <sup>2</sup>
Clermont County .....	.....	Nonattainment .....	.....	Moderate. <sup>2</sup>
Hamilton County .....	.....	Nonattainment .....	.....	Moderate. <sup>2</sup>
Warren County .....	.....	Nonattainment .....	.....	Moderate. <sup>2</sup>
* * * * *				

<sup>1</sup> This date is November 15, 1990, unless otherwise noted.

<sup>2</sup> Attainment date extended to November 15, 1998.

\* \* \* \* \*

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**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Part 85**

[FRL-5986-2]

RIN 2060-AH45

**Retrofit/Rebuild Requirements for 1993 and Earlier Model Year Urban Buses; Additional Update of Post-Rebuild Emission Levels in 1998**

AGENCY: Environmental Protection Agency (EPA).

**ACTION:** Final rule.

**SUMMARY:** This final rule amends regulations governing EPA's Urban Bus Retrofit/Rebuild Program to provide for the revision of post-rebuild particulate levels based on equipment certified by July 1, 1998. This amendment allows equipment manufacturers additional time to certify equipment capable of influencing compliance under Option 2 (the fleet averaging option) of the program. This amendment provides assurance that the two compliance options of the program remain equivalent, and that urban buses utilize the best retrofit technology reasonably achievable as Congress required. In addition, the amendment provides

assurance that urban areas realize the full PM benefits of this program.

**DATES:** This final rule is effective April 27, 1998.

**ADDRESSES:** Materials relevant to this amendment are contained in Public Docket No. A-91-28 at the address listed below. This docket is located in room M-1500, Waterside Mall (Ground Floor), U.S. Environmental Protection Agency, 401 M Street SW., Washington, DC 20460. Dockets may be inspected from 8 a.m. until 5:30 p.m., Monday through Friday. As provided in 40 CFR Part 2, a reasonable fee may be charged by EPA for copying docket materials.

**FOR FURTHER INFORMATION CONTACT:** William Rutledge, Engine Programs and

Compliance Division (6403-J), U.S. Environmental Protection Agency, 401 M Street SW., Washington, DC 20460. Telephone: (202) 564-9297.

**SUPPLEMENTARY INFORMATION:**

**I. Regulated Entities**

Entities potentially regulated by this amendment consist of the same entities currently regulated by the existing Retrofit/Rebuild Requirements of 40 CFR Part 85, Subpart O, and include urban transit operators in Metropolitan

Statistical Areas (MSA's) and Consolidated Metropolitan Statistical Areas (CMSA's) with 1980 populations of 750,000 or more, and equipment manufacturers who voluntarily seek equipment certification pursuant to the program regulations. Regulated categories and entities include:

Category	Examples of regulated entities
Industry .....	Equipment manufacturers who voluntarily seek equipment certification pursuant to the program regulations.
Transit operators .....	Transit bus operators in Metropolitan Statistical Areas (MSA's) and Consolidated Metropolitan Statistical Areas (CMSA's) with 1980 populations of 750,000 or more, that operate 1993 and earlier model year urban buses.

This table is not meant to be exhaustive, but rather to provide a guide for readers regarding entities regulated by this final rule. This table lists the type of entities that EPA is aware could potentially be regulated by this action. Other types of entities not listed in the table could also be regulated. To determine whether your facility or company is regulated by this action, you should carefully examine the existing urban bus retrofit/rebuild regulations contained in 40 CFR Part 85, Subpart O, and the preamble to the final rule (58 FR 21359, April 21, 1993). If you have any questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

**II. Obtaining Electronic Copies of the Rulemaking Documents**

In addition to being available at the location listed above at **ADDRESSES**, copies of the preamble and the regulatory text of this rulemaking are available electronically from two EPA internet Web locations. This service is free of charge, except for any cost you already incur for internet connectivity. An electronic version is made available on the day of publication on the primary Web location listed below. The EPA Office of Mobile Sources also publishes documents on the secondary Web location listed below.

Primary Web location: <http://www.epa.gov/EPA-AIR/> (either select desired date or use Search feature).

Secondary Web location: <http://www.epa.gov/OMSWWW/> (look in "What's New" or under the specific rulemaking topic).

Please note that due to differences between the software used to develop the document and the software into which the document may be downloaded, minor changes in format, pagination, etc. may occur.

**III. Contents**

IV. Background

A. Legal Authority

- B. General Program Background
- C. Potential Inequality Between Compliance Options
- V. Requirements of Today's Amendment to the Urban Bus Retrofit/Rebuild Regulations
  - A. Equipment Certification
  - B. TLF Calculations; Use of Pre- and Post-Rebuild PM Levels
- VI. Public Participation
  - A. Public Hearing
  - B. Public Comment and Agency Response
- VII. Environmental Impact
- VIII. Economic Impact
- IX. Administrative Requirements
  - A. Reporting and Recordkeeping Requirements
  - B. Impact on Small Entities
  - C. Executive Order 12866
  - D. Unfunded Mandates Act
  - E. Submission to Congress and the General Accounting Office

**IV. Background**

A. *Legal Authority*

Authority for the actions promulgated in this final rule is granted to EPA by Sections 202, 206, 207, 219, and 301 of the Clean Air Act as amended in 1990. This final rule was promulgated in accordance with Section 307(d) of the Clean Air Act.

B. *General Program Background*

Section 219(d) of the Clean Air Act as amended in 1990 requires EPA to promulgate regulations that require certain 1993 and earlier model year urban buses, having engines which are replaced or rebuilt after January 1, 1995, to comply with an emission standard or control technology reflecting the best retrofit technology and maintenance practices reasonably achievable. Section 219(d) restricts this requirement to 1993 and earlier model year urban buses operating in Metropolitan Statistical Areas and Consolidated Metropolitan Statistical Areas with 1980 populations of 750,000 or more.

On April 21, 1993, EPA published final Retrofit/Rebuild Regulations for 1993 and Earlier Model Year Urban Buses (58 FR 21359). The regulations require affected urban bus operators to

comply with one of two program options, beginning January 1, 1995. Option 1 establishes particulate matter (PM) emissions requirements for each urban bus in an operator's fleet when the engine is rebuilt or replaced. Option 2 is a fleet averaging program that sets out specific annual target levels for average PM emissions from urban buses in an operator's fleet. The two compliance options are designed to yield equivalent emissions reductions for approximately the same cost.

Option 1 requires affected urban buses to meet a 0.10 g/bhp-hr PM standard at the time of engine rebuild or replacement, if equipment has been certified by EPA for at least six months as meeting the 0.10 g/bhp-hr standard for less than a life cycle cost limit of \$7,940 (in 1992 dollars). (The regulation allows a six month lead time before requiring such equipment to allow transit operators to plan their budgeting and procurement activities, and to help ensure that an adequate supply of parts are available from equipment manufacturers.) If equipment is not certified as meeting the 0.10 g/bhp-hr standard for less than the life cycle cost limit, then affected buses must receive equipment which reduces PM emissions by 25 percent, if such equipment has been certified by EPA for at least six months as meeting the 25 percent reduction standard for less than a life cycle cost limit of \$2,000 (in 1992 dollars). If no equipment is certified to meet either the 0.10 g/bhp-hr standard, or the 25 percent reduction standard, then affected bus engines must be rebuilt to the original engine configuration, or to an engine configuration certified to have a PM level lower than that of the original engine.

Option 2 is an averaging-based program that requires bus operators to meet an annual average fleet PM level, instead of requiring each individual rebuilt engine to meet a specific PM level. On an annual basis, an operator must reduce its "actual" PM emissions

from its buses to a level no greater than its annual target level for the fleet (TLF). The operator calculates the TLF for each year of the program, beginning calendar year 1996, based on actual fleet composition, an assumed engine rebuild and retirement schedule, and EPA's determination of expected PM levels for each engine model. As an engine in a fleet is assumed to be rebuilt in a particular calendar year, the TLF calculations "switch" from a "pre-rebuild" PM emission level to a lower "post-rebuild" level that reflects the assumed use of lower-emitting, certified equipment. Over the years of the program, as the engines in a fleet are assumed to be rebuilt, this "switching" results in numerically lower TLF values. As discussed further below, EPA established pre-rebuild levels in the final rule of April 21, 1993, and has established post-rebuild levels based on equipment certified for each engine model. The operator also calculates its "actual" fleet level attained (FLA) for each year of the program, which must not exceed its TLF. The FLA is a fleet weighted average PM level based on the "actual" PM level of each affected engine. The "actual" PM level of each engine is determined by the certification PM level of the equipment used to rebuild or retrofit the engine. If no retrofit equipment is installed on an engine, or if no retrofit equipment is certified for the engine, then the actual PM level is the pre-rebuild PM level.

In the final rule of April 21, 1993, EPA established pre-rebuild PM levels for all engine models, but could only estimate the post-rebuild PM levels because no equipment had been certified. EPA recognized that estimated PM levels may not accurately reflect future equipment certifications, therefore, the final rule contained provisions for EPA to revise the post-rebuild PM levels based on equipment that is actually certified by certain points in time. The final rule provides for review of retrofit/rebuild equipment and for revision of post-rebuild PM emission levels based on equipment certified by July 1, 1994, and again by July 1, 1996. In **Federal Register** documents of September 2, 1994 (59 FR 45626) and August 16, 1996 (61 FR 42764), EPA published post-rebuild PM levels based on equipment that was certified as of July 1, 1994, and July 1, 1996, respectively.

Certification activity under the retrofit program has lagged substantially behind the schedule anticipated by EPA when the final rule of April 21, 1993 was promulgated. No equipment was certified when EPA revised post-rebuild levels based on equipment certified by

July 1, 1994. That revision is based on default provisions of the regulation (40 CFR 85.1403(c)(1)(iii)). The first certification for the program occurred on May 31, 1995 (60 FR 28402), almost a year after the post-rebuild levels were revised the first time. Several rebuild/retrofit kits were certified by July 1, 1996, but none were certified to the 0.10 g/bhp-hr PM standard. Therefore, the revision of the post-rebuild levels based on equipment certified by July 1, 1996 is based only on equipment certified to reduce PM by 25 percent, or on no equipment (for those engine models for which no equipment was certified as meeting emissions and cost requirements).

EPA's assumption that certification activity would begin early was incorrect, and more importantly, EPA's assumption that certification activity would be complete by mid-1996 was incorrect. For example, EPA recently certified equipment manufactured by Engelhard Corporation (see 62 FR 12166; March 14, 1997) that triggers the 0.10 g/bhp-hr standard for 1979 through 1989 model year Detroit Diesel Corporation (DDC) 6V92TA MUI engines. Additionally, Johnson Matthey Incorporated has submitted an application to certify equipment to the same standard and applicable to these, and other, DDC engines (see 62 FR 4528; January 30, 1997). As discussed below, EPA is also aware of other plans for certifying equipment to the 0.10 g/bhp-hr standard for several more engine models. For these reasons, EPA expects equipment to be certified that will trigger the 0.10 g/bhp-hr standard for a large segment of the affected engine population.

#### *C. Potential Inequality Between Compliance Options*

As noted above, the post-rebuild levels based on equipment certified by July 1, 1996, are based only on equipment certified to reduce PM by 25 percent, or on no equipment in some cases. Absent today's amendment, transit operators complying with Option 2 would determine their TLFs based only on equipment reflective of those post-rebuild levels. On the other hand, transit operators choosing to comply with Option 1 are required to use equipment certified to the 0.10 g/bhp-hr standard, when this standard is triggered. For example, under Option 1 the above-mentioned Engelhard certification (62 FR 12166; March 14, 1997) means that equipment certified to the 0.10 g/bhp-hr standard must be used when applicable urban bus engines are rebuilt or replaced six months or more after the effective date of the

certification (that is, on rebuilds or replacements performed after September 14, 1997). Without today's amendment, this and other such equipment certified to the 0.10 g/bhp-hr standard would result in Option 2 producing less emission reductions than Option 1, and Option 1 becoming more costly than Option 2.

Given the current level of certification activity and continued interest from equipment manufacturers, certification of additional 0.10 g/bhp-hr technology is likely. Without today's amendment to the program regulations, transit operators, the majority of whom EPA currently believes are complying with Option 1, would have significant incentive to switch to Option 2. As a result, PM reductions would be significantly reduced in those cities where transit operators switch to Option 2. Furthermore, such a loophole is in direct conflict with the Clean Air Act language that urban buses use the best retrofit technology reasonably achievable.

To ensure equivalent compliance options, a notice of proposed rulemaking (NPRM) was published on November 12, 1996 (61 FR 58022) to maintain the continued link between the requirements of Option 2 and Option 1. That notice proposed amending the program regulations to provide for EPA's review of equipment certified by July 1, 1997, and revision of the post-rebuild levels as necessary. The notice requested comments on several aspects of the proposal, including the effect on the Urban Bus Retrofit/Rebuild Program, transit operators, equipment manufacturers, and the timing of a third revision.

Today's action amends the program regulations to provide for EPA to review equipment certified by July 1, 1998, and to revise the post-rebuild levels for Option 2 TLF calculations, as appropriate. EPA is using July 1, 1998 as the appropriate cut-off instead of the proposed date of July 1, 1997 because, based on comments from an equipment certifier (Johnson Matthey, Incorporated, in comments dated December 9, 1996), EPA expects equipment to be certified at a level of 0.10 g/bhp-hr for additional engine models by mid-1998. These additional engine models comprise a significant portion of the affected fleet. EPA thus believes that providing one more year for review of certified equipment will allow Option 1 and Option 2 to remain equivalent compliance options.

## V. Requirements of Today's Amendment to the Urban Bus Retrofit/Rebuild Regulations

As discussed below, today's action amends 40 CFR 85.1403(c)(1) to allow the Agency to include equipment certified by July 1, 1998 to the 0.10 g/bhp-hr standard for less than the life cycle cost ceiling of \$7,940 (1992 dollars) in the Option 2 fleet average program for the purpose of setting post-rebuild levels. Thereafter, the Agency will publish in the **Federal Register** the post-rebuild emissions levels that will be required to be used under Option 2 for calculating the target levels for the fleet (TLF). Post-rebuild levels revised as a result of this amendment may be more stringent for calculating TLFs than the post-rebuild levels published on August 16, 1996 (61 FR 42764).

EPA will base the final revision of post-rebuild PM levels on equipment certified by July 1, 1998. This date provides six months lead time prior to January 1, 1999, when the rebuild schedule in section 85.1403(c)(1) will begin to take into account the revisions in post-rebuild levels resulting from any new certifications. Only the TLFs for year 2000 and later are affected by today's amendment.

Also discussed below is a minor correction to the post-rebuild levels used in the TLF calculations for certain model years.

### A. Equipment Certification

Today's amendment does not limit the ability of equipment manufacturers to certify equipment. Equipment manufacturers can still certify equipment after July 1, 1998. However, EPA will not consider equipment certified after July 1, 1998 in determining the appropriate post-rebuild levels under Option 2. No additional revisions of post-rebuild levels under Option 2 will occur beyond July 1998 because such revisions would not be expected to impact a significant number of rebuilds under this program.

### B. TLF Calculations; Use of Pre- and Post-Rebuild PM Levels

The final rule of April 21, 1993, describes modeling used to calculate, on an annual basis, the target level for a fleet using Option 2. The target level for a fleet (TLF) establishes the maximum average emissions from a fleet, and as such is a compliance standard for a fleet, but it does not establish requirements on any specific bus engine. In general, the model is based on an "adjusted" rebuild schedule that predicts (i.e., "assumes") when each model year engine in a fleet will be

rebuilt. The model assumes that certified equipment is applied at the time of an assumed rebuild occurring after program start (January 1, 1995). (Each bus engine is assumed to receive several rebuilds during its lifetime.) When an engine is assumed to be rebuilt in a particular calendar year, the TLF calculations for subsequent calendar years "switch" from one PM emission level to a lower "post-rebuild" level that reflects the assumed use of lower-emitting, certified equipment. This switch results in numerically lower TLF values over the years of the program.

For the TLF calculations, engines in original configurations are assumed to emit at pre-rebuild PM emissions levels. After an assumed rebuild, engines are assumed to emit at post-rebuild levels reflecting use of equipment certified to one of two emissions standards (depending on what equipment is certified): a reduction in PM of at least 25 percent, or a more stringent 0.10 g/bhp-hr standard. Numerical values for the pre-rebuild PM levels are established in the final rule of April 21, 1993 (58 FR 21359). The post-rebuild levels have been established in **Federal Register** documents of September 2, 1994 (59 FR 45626) based on equipment certified by July 1, 1994, and August 16, 1996 (61 FR 42764) based on equipment certified by July 1, 1996. Pursuant to today's amendment, revised post-rebuild levels based on equipment certified by July 1, 1998, may affect TLFs for year 2000 and beyond, depending on a particular fleet's composition.

Crucial to TLF model is the adjusted rebuild schedule, which is described in the final rule of April 21, 1993, and found as a table in the regulations at 40 CFR 85.1403(c)(1)(iv). The adjusted schedule predicts when each model year engine is assumed to be rebuilt. This schedule is shown below pictorially as Figure 1. For purposes of calculating the TLF for each year of the program, the date at which the emission level for a model year engine switches from one PM level to another is January 1st of the year following a rebuild assumed to occur subsequent to program start (January 1, 1995). Today's amendment does not change either the adjusted rebuild schedule or the year of a switch from one PM level to another.

Today's amendment also includes a minor correction regarding the post-rebuild levels used for several year's TLF calculations. This correction to the regulation will prevent overly stringent TLF values for calendar years 1998, 1999, and 2000 (TLF<sub>98</sub>, TLF<sub>99</sub>, and TLF<sub>2000</sub>, respectively) for operators of fleets having 1984 and/or 1985 model

year buses, that otherwise might result from application of the original regulation promulgated on April 21, 1993. The original regulation incorrectly assigns post-rebuild levels, based on equipment certified by July 1996, to these two model year engines for the TLF calculations for calendar years 1998, 1999, and 2000. This assignment is not correct because it is not consistent with the adjusted rebuild schedule, which predicts that the 1984 and 1985 model year engines are rebuilt for the last time in 1995 and 1996, respectively. It therefore is not reasonable that the TLF calculations (for these three calendar years) reflect post-rebuild levels established after the last rebuilds of engines are assumed to occur. (Post-rebuild levels were lowered for many engine models based on equipment certified by July 1996.) Today's action corrects the regulation at § 85.1403(c)(1) so that the TLF calculations for these three calendar years use post-rebuild levels based on equipment certified by July 1, 1994, until any 1984 and 1985 model year engines in a fleet is assumed to be retired (see Figure 1).

In general, for TLF calculations, the post-rebuild level used for a particular engine in a fleet is the post-rebuild level effective at the time the engine is assumed to be rebuilt, according to the adjusted rebuild schedule. For the years subsequent to the assumed rebuild, the post-rebuild level remains unchanged until the next rebuild is predicted, at which point the same or a different post-rebuild level may be effective, depending on whether it has been revised. The TLF calculation for a given calendar year is based on engines no older than 15 years of age. (As noted previously, Option 2, as an averaging program, places no specific requirements on individual engines. As a result, the actual date that an engine is rebuilt is not relevant to TLF calculations.)

Additionally, due to today's amendment and for reasons analogous to those described in the preceding paragraphs, it is necessary to clarify what post-rebuild levels are used for calendar year 2000 and later. For fleets having any 1986, 1987, and 1988 model year engines, the TLF calculations must use the post-rebuild levels based on equipment certified by July 1, 1996, until the engines are assumed to be retired (see Figure 1). This is consistent with the adjusted rebuild schedule, which assumes 1986 model year engines are rebuilt for the last time in calendar year 1997 and, 1987 and 1988 model year engines are both assumed to be rebuilt for the last time in 1998. These model year engines cannot reasonably

be expected to be equipped subsequent to their last presumed rebuild, with equipment certified by July 1, 1998. Therefore, the TLF for year 2000 and later must be performed using post-rebuild levels that are in effect for these three model year engines during the year that the last rebuild is performed.

As a result, in accordance with the adjusted rebuild schedule, only engines of model year 1989 through 1993 are assumed to have rebuilds in 1999 or later. Engines assumed to be rebuilt in 1999 are the first that could employ applicable equipment certified by July 1, 1998. Therefore, only 1989 through 1993 model year engines may have revised post-rebuild PM levels based on equipment certified by July 1, 1998. The post-rebuild PM levels for only these engines may be more stringent (based on equipment certified by July 1, 1998) for calculating the TLFs for year 2000 and thereafter.

For purposes of calculating the TLF for each year of the program, section 85.1403(c)(1)(iv) of the regulation states when to use pre- or post-rebuild PM levels. Today's rule revises the chart at 40 CFR 85.1403(c)(1)(iv) to clarify which emissions levels are used for calculating the TLF for each year of the program (that is, whether to use the pre-rebuild PM level, or the post-rebuild level based on equipment certified by July 1, 1994; July 1, 1996; or July 1, 1998).

Figure 2 below is developed from Figure 1 and indicates what PM emissions level is used, for each model year engine in a fleet, to calculate the TLF for a given calendar year. Figure 2 is a pictorial representation of the chart at 40 CFR 85.1403(c)(1)(iv), and as such, indicates which emissions level to use—that is, whether to use the pre-rebuild level; or the post-rebuild level based on equipment certified by July 1, 1994; July

1, 1996; or July 1, 1998. For the purpose of calculating TLFs, the date at which the emissions level for each model year engine switches from one PM level to another is January 1st of the year following a rebuild assumed to occur (as shown in Figure 1) subsequent to program start (January 1, 1995). For example, for TLF<sub>2000</sub>, only 1985 and later model year engines in a fleet are considered, all of which are assumed to be operating at an appropriate post-rebuild level. For TLF<sub>2000</sub>, operators must use the post-rebuild levels based on equipment certified by July 1, 1994 (59 FR 45626, September 2, 1994) for any 1985 model year engines, the post-rebuild levels based on equipment certified by July 1, 1996 (61 FR 42764, August 16, 1996) for any 1986 through 1988, and 1991 through 1993 model year engines, and the post-rebuild levels based on equipment certified by July 1, 1998, for any 1989 and 1990 model year engines in their fleets.

As many followers of the Urban Bus Retrofit/Rebuild Program are aware, the Agency developed a computer spreadsheet (also known as "URBAN7.WK1") to assist operators by calculating TLFs and FLAs. With today's action, it becomes apparent for a couple reasons, that operators using URBAN7 may need to determine TLFs separately for several distinct time periods. First, and obvious, some TLFs cannot be determined until post-rebuild levels, based on equipment certified by July 1, 1998, are known. Second, due to limitations in spreadsheet design, URBAN7 accommodates only two PM emissions levels for each model year engine—a pre-rebuild level and one post-rebuild level. URBAN7 does not have provisions for the engine model years that have more than one post-rebuild level. (Some engines experience two assumed rebuilds during the

program, each of which may have associated with it a different post-rebuild level.)

For such situations, the user must re-enter the post-rebuild levels for such engines, and "re-run" URBAN7 to determine the TLFs for the appropriate time period(s). It may be necessary to determine TLFs separately for several distinct periods, depending on fleet composition and post-rebuild levels based on equipment certified by July 1, 1998. Presently, given that post-rebuild levels have been established at two points in time (based on equipment certified by July 1, 1994, and July 1, 1996), URBAN7 can calculate the TLFs for calendar years 1996 through 1999. Once the post-rebuild levels based on equipment certified by July 1, 1998 are known, the TLFs for all periods can be calculated, although possibly not in one "run". The Agency will revise the instructions for URBAN7, but does not expect to revise the URBAN7 spreadsheet. Revised instructions will be made available upon request to the person listed above under **FOR FURTHER INFORMATION CONTACT**.

Irrespective of today's amendment, it is worthwhile to remind fleet operators that it becomes increasingly difficult to keep buses older than 15 years in their fleets, because the TLF for a particular calendar year is calculated without consideration of buses that are past 15 years of age. As a result, the TLF for a fleet becomes numerically zero (0.00) when the youngest pre-1994 model year engine is more than 15 years old. On the other hand, operators are able to retain bus engines older than 15 years that have been retrofit with equipment certified to the 0.10 g/bhp-hr standard or, that were originally certified to a 0.10 g/bhp-hr standard, because emissions from these buses are not included in the FLA.

FIGURE 1.—ADJUSTED REBUILD SCHEDULE

Engine model year	Calendar year															
	1993	1994	1995*	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
1993						R1			R2							RETIRE
1992						R1					R3	R3			RETIRE	
1991					R1						R3			RETIRE		
1990		R1					R2						RETIRE			
1989		R1					R3					RETIRE				
1988	R1						R3				RETIRE					
1987			R2				R3				RETIRE					
1986		R2			R3				RETIRE							
1985	R2			R3				RETIRE								
1984			R3					RETIRE								
1983		R3					RETIRE									
1982	R3				RETIRE											
1981				RETIRE												
1980			RETIRE													
1979		RETIRE														

\*January 1, 1995 is the start of the program.  
R1, R2, R3 = First, second, and third engine rebuild, respectively.

FIGURE 2.—PM EMISSIONS LEVELS FOR TLF CALCULATIONS

Engine model year	"TLF-Year"															
	1993	1994	1995*	1996**	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
1993				pre	pre	pre	post <sup>2</sup>	post <sup>2</sup>	post <sup>2</sup>	post <sup>3</sup>	post <sup>3</sup>	post <sup>3</sup>	post <sup>3</sup>	post <sup>3</sup>	post <sup>3</sup>	post <sup>3</sup>
1992				pre	pre	pre	post <sup>2</sup>	post <sup>2</sup>	post <sup>2</sup>	post <sup>2</sup>	post <sup>2</sup>	post <sup>2</sup>	post <sup>2</sup>	post <sup>2</sup>	post <sup>2</sup>	post <sup>2</sup>
1991				pre	pre	post <sup>2</sup>	post <sup>2</sup>	post <sup>2</sup>	post <sup>2</sup>	post <sup>2</sup>	post <sup>3</sup>	post <sup>3</sup>	post <sup>3</sup>	post <sup>3</sup>	post <sup>3</sup>	post <sup>3</sup>
1990				pre	pre	pre	pre	post <sup>3</sup>	post <sup>3</sup>	post <sup>3</sup>	post <sup>3</sup>	post <sup>3</sup>	post <sup>3</sup>	post <sup>3</sup>	post <sup>3</sup>	post <sup>3</sup>
1989				pre	pre	pre	pre	post <sup>3</sup>	post <sup>3</sup>	post <sup>3</sup>	post <sup>3</sup>	post <sup>3</sup>	post <sup>3</sup>	post <sup>3</sup>	post <sup>3</sup>	post <sup>3</sup>
1988				pre	pre	pre	post <sup>2</sup>	post <sup>2</sup>	post <sup>2</sup>	post <sup>2</sup>	post <sup>2</sup>	post <sup>2</sup>	post <sup>2</sup>	post <sup>2</sup>	post <sup>2</sup>	post <sup>2</sup>
1987				post <sup>1</sup>	post <sup>1</sup>	post <sup>1</sup>	post <sup>2</sup>	post <sup>2</sup>	post <sup>2</sup>	post <sup>2</sup>	post <sup>2</sup>	post <sup>2</sup>	post <sup>2</sup>	post <sup>2</sup>	post <sup>2</sup>	post <sup>2</sup>
1986				pre	pre	post <sup>2</sup>	post <sup>2</sup>	post <sup>2</sup>	post <sup>2</sup>	post <sup>2</sup>	post <sup>2</sup>	post <sup>2</sup>	post <sup>2</sup>	post <sup>2</sup>	post <sup>2</sup>	post <sup>2</sup>
1985				pre	post <sup>1</sup>	post <sup>1</sup>	post <sup>1</sup>	post <sup>1</sup>	post <sup>1</sup>	post <sup>1</sup>	post <sup>1</sup>	post <sup>1</sup>	post <sup>1</sup>	post <sup>1</sup>	post <sup>1</sup>	post <sup>1</sup>
1984				post <sup>1</sup>	post <sup>1</sup>	post <sup>1</sup>	post <sup>1</sup>	post <sup>1</sup>	post <sup>1</sup>	post <sup>1</sup>	post <sup>1</sup>	post <sup>1</sup>	post <sup>1</sup>	post <sup>1</sup>	post <sup>1</sup>	post <sup>1</sup>
1983				pre	pre	pre	pre	pre	pre	pre	pre	pre	pre	pre	pre	pre
1982				pre	pre	pre	pre	pre	pre	pre	pre	pre	pre	pre	pre	pre
1981				pre	pre	pre	pre	pre	pre	pre	pre	pre	pre	pre	pre	pre
1980																
1979																

\*January 1, 1995 is the start of the program.

\*\*First "TLF-Year" of the program.

"pre" Pre-rebuild levels established in the final rule of April 21, 1993, pursuant to (c)(1)(iii)(A).

<sup>1</sup> Post-rebuild level established pursuant to (c)(1)(iii)(B), that is, based on equipment certified by July 1, 1994.

<sup>2</sup> Post-rebuild level established pursuant to (c)(1)(iii)(C), that is, based on equipment certified by July 1, 1996.

<sup>3</sup> Post-rebuild level established pursuant to (c)(1)(iii)(D), that is, based on equipment certified by July 1, 1998.

**VI. Public Participation**

**A. Public Hearing**

The NPRM of November 12, 1996, stated that EPA would hold a public hearing on the proposal on December 6, 1996 if any requests to testify were received by November 22, 1996. EPA received no requests.

**B. Public Comment and Agency Response**

In the NPRM of November 12, 1996, EPA solicited written comments on the proposed amendment and its effect on the Urban Bus Retrofit/Rebuild Program, transit operators and equipment manufacturers. In particular, EPA asked for comments on the need to add a third revision of post-rebuild PM levels, the timing of a third revision, the consistency of the amendment with the original regulations, the need to address the potential compliance loophole that may exist, how to ensure the same compliance loophole issue addressed by the amendment does not happen again, and any other aspects of the amendment.

EPA received comments on the NPRM from six parties, consisting of the Manufacturers of Emission Controls Association (MECA), New York State Department of Environmental Conservation (NYSDEC), and four equipment certifiers. The four certifiers are Detroit Diesel Corporation, Twin Rivers Technologies, Engelhard Corporation, and Johnson Matthey, Incorporated. All comments are available in the public docket at the above address. No comments were received from transit operators.

Four commenters support the proposal of November 1996 to amend

the regulations: NYSDEC, MECA, Engelhard and Johnson Matthey. NYSDEC states that it is aware of upcoming changes to the National Ambient Air Quality Standard for particulate matter, and that today's amendment will help New York State in its efforts to maintain compliance with those air quality standards. MECA notes that the pace of certification activity under the program has not occurred within the time frame envisioned by EPA when it originally finalized the rule, that the proposed change is needed to ensure that the two compliance programs remain equivalent, and that the change is consistent with the intent of Congress.

Two equipment certifiers support the amendment. Engelhard believes that future revision to post-rebuild PM levels are necessary to maintain equivalence between the two program compliance options. Engelhard states that there is growing public concern about the health effects of diesel particulates, and applauds EPA's efforts in trying to ensure that the Urban Bus Program provides the maximum benefit and is equally applicable to all municipalities. Engelhard fully supports revisions to the post-rebuild PM levels that will ensure that the best available control technology is an option for urban transits operating under either compliance option.

JMI supports EPA's proposal to allow additional time for manufacturers to certify equipment that would influence compliance under Option 2, in order to eliminate the unintended, current disparity between Option 1 and Option 2. JMI also notes its submittal to EPA of an application to certify equipment (see 62 FR 4528; January 30, 1997)

applicable to two engine models that complies with the 0.10 g/bhp-hr standard. JMI also states that additional testing is being conducted on other engine models, expected to be completed in 1997, and requests that EPA extend the program deadline for equipment certification to January 1, 1998, to allow for the broadest range of engine models to be included.

EPA expects equipment to be certified that will trigger the 0.10 g/bhp-hr standard for a large segment of the affected engine population. For example, EPA recently certified equipment manufactured by Engelhard (62 FR 12166; March 14, 1997) that triggers the 0.10 g/bhp-hr standard for 1979 through 1989 model year DDC 6V92TA MUI engines. Also, the above-noted comments received from JMI indicate its intent to certify equipment to this standard for these and additional DDC engines. Moreover, EPA is aware, through its review of confidential test plans, of two other equipment manufacturers intending to certify equipment to the 0.10 g/bhp-hr standard for these and other engine models. EPA discussed non-confidential information regarding the equipment of these two manufacturers (Turbodyne Systems Incorporated and A-55 Limited Partnership) during an EPA presentation at an American Public Transit Association Conference in Anaheim, California, on October 10, 1996. (An overview of the EPA presentation, dated October 10, 1996, is located in the public docket). Certification of these equipment cannot occur prior to July 1, 1997. As a result, EPA believes it appropriate to revise post-rebuild levels on equipment certified by July 1, 1998 instead of the July 1, 1997 date

proposed in the November 12, 1996 notice. The July 1998 date will permit a significant portion of the affected engine population to be covered and lessen the likelihood that an inequality will occur again in the future. In addition, use of July 1, 1998 as suggested by JMI, rather than January 1, 1998, allows bus operators to continue to calculate averages using full years, while remaining consistent with the six month lead time that has been used for the urban bus program.

Prospective equipment certifiers and transit operators should note that the "cut-off" date (July 1, 1998) does not preclude subsequent equipment certifications. Additionally, the cut-off date does not prevent any operator from using any equipment certified under the Urban Bus Program, to the extent the operator is otherwise in compliance with program requirements.

Detroit Diesel Corporation (DDC) and Twin Rivers Technologies, L.P. (TRT), provided comments in opposition to today's amendment. DDC comments that the amendment will retroactively and unfairly deny transit operators the compliance flexibility originally provided under the program. Specifically, DDC argues that some operators may have adopted an initial strategy of complying with both options until the post-rebuild PM levels were established based on equipment certified by July 1, 1996. Operators then may have taken irrevocable actions to pursue only Option 2 because of lower compliance costs due to TLFs assumed to be known and fixed. DDC states that an amendment would disadvantage these operators in three ways. First, rebuild costs would be increased if new, more costly equipment is certified. Second, operators would be unable to avoid unknown durability, reliability and operational issues that are likely to occur if equipment is certified without adequate field experience. Third, having relied on the existing rule, an operator's commitment to one option would now result in sacrificing the flexibility to continue compliance under the other option. DDC contends that all of this unfairly penalizes such operators.

With regard to the first concern, EPA agrees that rebuild costs for compliance will be increased if, or when, new equipment is certified, but this is entirely consistent with the original rule. It is an unmistakable expectation clearly spelled out in the final rule of April 21, 1993 that equipment triggering the 0.10 g/bhp-hr standard can be more expensive than equipment designed to reduce PM by 25 percent. For reasons explained in the 1993 final rule, EPA believed, and believes, that such extra

costs are appropriate given the extra emissions reductions produced and given the requirements of the statute. The 1993 final rule contemplated that technologies for at least some engines would be certified to meet the 0.10 g/bhp-hr standard. Moreover, today's amendment merely helps assure that compliance Options 1 and 2 are equivalent. Today's amendment will result in no cost increase with respect to the cost evaluation of the original rule. Bus operators complying with Option 2 will still enjoy additional flexibility, because requirements of the option are not engine-specific.

DDC's second contention, that operators will be unable to avoid unknown durability, reliability and operational issues that are likely to occur if equipment is certified without adequate field experience, is not specifically related to either Option 1 or 2, or to this amendment. Generally speaking, these issues may be important for any equipment, and EPA continues to encourage equipment manufacturers, transit operators, and others, to address such concerns during the equipment certification process to assure that they are addressed. Durability, reliability, and operational issues can apply regardless of the standard to which equipment is designed. To the extent that such concerns arise after certification, the program regulations provide remedy in two ways. First, liability for durability of equipment is provided by the emissions warranties required to be provided by certifiers in accordance with 40 CFR 85.1409. Additionally, pursuant to 40 CFR 85.1413, EPA has authority to decertify equipment that fails to comply with 40 CFR 85.1405 through 85.1414.

The final contention noted by DDC, that operators having relied on the final rule and committing to one of the options may have sacrificed the flexibility to continue compliance under the other option, appears speculative. The **Federal Register** notice of August 16, 1996 (61 FR 42764) clearly provides notice that EPA was aware of potential inequality between the options and was considering appropriate action to ensure program integrity. In fact, the notice mentions the possibility of a rulemaking to add a third post-rebuild PM level revision (Id. at 42766).

Moreover, no transit operators have commented adversely to the NPRM, or claimed to have lost flexibility retroactively as a result of today's amendment. The final rule of April 21, 1993, states that an operator may switch between compliance options if it is in compliance with all requirements of the newly chosen option at all times since

the beginning of the program. Today's amendment does not change this flexibility.

Twin Rivers Technologies, L.P. (TRT) states that the amendment is ill-advised and improper for several reasons. The following discussion presents each of these issues, and responds to each in turn. First, TRT indicates that the amendment will create a moving compliance target, and that the potential that no technology would be certified at 0.10 g/bhp-hr was "\* \* \* a scenario completely envisioned by the rule's authors" and that "Program 1 and 2 disparity \* \* \* is the very fabric of the program \* \* \*".

EPA agrees that today's amendment will create a compliance target that is more variable than expected by the authors of the 1993 final rule. However, the amendment does not present operators using Option 2 with more rigorous compliance requirements, in the aggregate, than those presented to operators using Option 1. The two options were expected in the 1993 rule to provide equivalent emissions reductions. Today's amendment is fully consistent with that original intent, and follows the original expectation that Option 2 levels would be based on equipment certified to the emissions reduction and life cycle cost requirements of Option 1.

EPA never intended "flexibility" to include switching between two grossly unequal compliance options. Any contention that environmental disparity between the compliance options was envisioned by the final rule, or is the fabric of the program, is inaccurate. To the contrary, the very fabric of the urban bus program is that the two options provide equivalent emissions reductions, and today's amendment is intended to assure this. As stated in the preambles to both the original final rule (58 FR 21359; April 21, 1993) and the proposal preceding it (57 FR 33141; July 27, 1992), EPA bases its legal authority to develop an averaging program on meeting the statutory standard-setting test of reflecting "\* \* \* the best retrofit technology and maintenance practices reasonably achievable" (section 219(d) of the Clean Air Act). In the absence of today's amendment, no clear authority for the averaging option exists. Therefore, today's amendment is consistent with the constraint that the fleet averaging option be equivalent, in terms of emission reductions, to the engine-specific option, and is completely appropriate given EPA's responsibilities under section 219(d) of the Clean Air Act.

Regarding the concern that the amendment raises serious issues among

transit operators, EPA does not believe this to be an accurate assessment. EPA notes that no transit operators commented on the amendment.

The second reason put forth by TRT is that the amendment is unfair because it deprives the soundly managed transit the benefit of selection of compliance option after completing the dual compliance necessary to exercise that right. Additionally, TRT states that the amendment “\* \* \* is an egregious example of \* \* \* ex post facto regulation”, and is improper because it is inconsistent with regulatory law that require rules to be made on a prospective basis. TRT also notes the matter of fairness to equipment certifiers that have planned manufacturing and marketing around the regulation.

EPA recognizes that some transit operators may have maintained compliance with both options with intentions of making a selection based on equipment certified by July 1, 1996. The August 16, 1996 **Federal Register** notice revised post-rebuild PM levels, based on equipment certified by July 1, 1996, and also provided notice of the potential inequality between the compliance options and that EPA was considering appropriate action to ensure program integrity. Today's amendment ensures program integrity, but does not change the flexibility of the original rule. Operators, otherwise in compliance with both options, are not prevented from selecting to comply with only one of the options.

EPA disagrees with the claim that today's amendment constitutes “ex post facto” regulation or is improper, because the changes of the amendment solely effect the requirements of transit operators using Option 2 for TLFs calculated after 1999. No violations of the amendments promulgated today can occur prior to the year 2000. Nor would any of the requirements for rebuilds scheduled to be performed prior to 1999 be made more stringent because of these amendments. Moreover, the comment misapprehends EPA's responsibilities under the Act. EPA is permitted to amend its regulations in order to account for new developments. Moreover, such amendments are completely appropriate where, as here, failure to do so would lead to regulations that no longer meet the technology requirements of the statute. Today's amendments are fully consistent with the legislative requirement to use the “\* \* \* best retrofit technology \* \* \* reasonably achievable”, and the original program design. The design of the original program accomplishes the legislative requirement by providing for equivalent

emissions reductions from Option 1 and 2. Today's amendment assures that emissions reductions from the two options remain equivalent.

With regard to the matter of fairness to transit operators, EPA believes that selection between two compliance options that are not equivalent is not the proper test of “fairness”. As discussed above, the intent of the original regulation is equivalent emissions reduction from both Option 1 and Option 2. The test for fairness, therefore, is relevant to switching between compliance options that are otherwise equivalent. Indeed, “fairness” would not exist in the absence of today's amendment to the program regulations, because the two compliance options would be clearly and significantly unequal in terms of emissions reductions and costs to operators.

With regard to the matter of fairness to equipment certifiers, the regulation is clear that one level of technology (that is, equipment certified to reduce PM by at least 25 percent) is meant to be superseded by a more effective technology (equipment certified to the 0.10 g/bhp-hr standard), if such technology is certified. Though equipment certifiers and transit operators may have different expectations of final fleet requirements based on this rule, such parties were always subject to possible changes in fleet requirements based on certification of 0.10 g/bhp-hr technology. That certification of such technology will be recognized in Option 2 two years later than originally expected is not a fundamental change in the possible outcomes regarding technology and fleet requirements that were always inherent in the retrofit/rebuild program. Finally, as discussed above, this amendment will only affect post-rebuild expected levels for bus engines manufactured in at most five model years. Moreover, more stringent post-rebuild levels for three of these model years (1991 through 1993) would not go into place until, at the earliest, TLF<sub>2002</sub>.

Third, TRT notes EPA's assessments in the preamble to the original rulemaking that limiting the number of revisions of the post-rebuild levels is important to provide stability in the averaging program, and that having more than two revisions could lead to a “moving target” for operators. TRT expresses concern for continued revisions to post-rebuild levels in the future.

EPA recognizes the concern related to the “moving target” nature of several revisions. However, a revision based on equipment certified by July 1, 1998, will be only the second revision of

substance, because no equipment was certified for the “first” revision. This “second” revision is necessary to maintain Option 2 equivalent to Option 1. EPA expects that the 0.10 g/bhp-hr standard will be triggered for a significant portion of the affected fleet by July 1, 1998. Therefore, there is not expected to be further need to revise post-rebuild levels subsequent to July 1, 1998.

Fourth, TRT indicates that there is no disparity in emissions reductions between the two options, and expresses the following several contentions in support of this point. Each is accompanied by EPA's response.

In support, TRT first suggests that if the post-rebuild level for only the 1979 through 1987 6V92TA engines are reduced from 0.30 to 0.10 g/bhp-hr, then TLFs for fleets with buses later than model year 1987 could increase after the year 2002, which could increase PM emissions. This suggestion is not persuasive for several reasons. First, it presumes that no technology will be certified for engines manufactured from 1988 through 1993, which is by no means certain. Second, if in fact technology is not certified for later engines, then this regulatory amendment will have little effect because, as explained above, Option 2 post-rebuild levels for engines manufactured prior to 1989 will not be affected by this amendment. Finally, TRT does not explain how lowering the target post-rebuild level (TLF) for even a subset of a fleet can ever increase actual emission levels (that is, the FLA) for the fleet, compared with the actual levels that would result from the fleet having to meet a less stringent target level. Reluctance to retire engines seems irrelevant to the target level calculation, because the emissions from any higher emitting engine, even one that is greater than fifteen years old, must be counted as part of a fleet's actual emissions, which will always create an incentive to retire more polluting buses, whether they are older or newer.

Also in support, TRT notes that only fleets that have maintained simultaneous Option 1 and Option 2 compliance can currently choose to comply with either Option 1 or 2 in the future. TRT believes that many fleets have most likely lost their ability to claim Option 2 compliance. (Therefore, few fleets are currently using Option 2.) EPA does not know the number of fleets complying with either or both options, and TRT provides no data or information in support of its statements. However, as stated above, EPA believes that today's amendment is necessary to assure equivalent reductions from both



options and to maintain legal authority for the averaging option. Moreover, given the minimal requirements of Option 2 following the September 2, 1994 update, the notice in the August 16, 1996 update, and the short period between the August 16 update and the NPRM, it is unlikely that many operators would have lost this opportunity prior to the publication of the NPRM.

Also in support, TRT states that EPA misunderstands both the lack of action taken by Option 1 fleets to reduce emissions, and the many actions required by Option 2 fleets. TRT states that Option 2 actually provides no flexibility toward meeting the TLF. The TLF is never approached in a fleet using only Option 1 (regardless of the post-rebuild levels), because such fleets will rebuild less frequently, and might eliminate rebuilding, given the increased cost of complying with the 0.10 g/bhp-hr standard. TRT suggests that the retrofit/rebuild program is responsible for fleets reducing their engine rebuilds from once every seven years to less than half that rate. On the other hand, TRT claims that Option 2, by virtue of the calculations that determine TLFs based on specific assumed rebuild schedules, and retirement of engines at 15 years of age, will provide an ever increasing annual reduction in PM emissions. Option 2 reductions are not subject to the actual rebuild strategy of a fleet, but to the requirements of calculations that force a continual decrease in TLF with time. In summary, TRT claims that a compliant operator using Option 2 will generate greater emissions reduction than under Option 1. An operator using only Option 1 could conceivably create zero emissions reductions, regardless of the equipment certified.

EPA believes that TRT's perception of compliance under the two options is somewhat, but not entirely, accurate. Further, TRT provides no information to substantiate the statements regarding rebuild frequency. No fleet operators commented.

As discussed in the April 21, 1993 rulemaking, EPA understands that operators may eliminate some engine rebuilds, and move others forward or back in time in order to minimize costs associated with the cost of compliance with the urban bus program. The assumed rebuild schedule, a key factor of the calculations used by Option 2 operators, is "adjusted" to reflect the expectation that rebuild schedules may be changed. While EPA has only recently begun to audit fleet operators for compliance with program requirements, we have no information

that fleet operators are not performing rebuilds.

Option 2 is designed to yield fleet-wide equivalent emissions reductions with Option 1 based on three factors: an adjusted engine rebuild schedule, the availability of certified technology, and an assumed retirement schedule. EPA estimated the impact of certified equipment technology (and incident costs) on the rebuild schedule of each particular model year of engine. The rebuild presumptions include elimination of some rebuilds for some model year engines, and moving other rebuilds, either forward in time or back, to postpone or avoid costs related to applying certified retrofit/rebuild equipment. Under either compliance option, engines can be kept in a fleet as long as desired. Under Option 1, if an engine is not retired, then rebuild or replacement cannot be postponed indefinitely. When rebuild or replacement occurs, compliance with the correct PM standard is required (which may include the 0.10 g/bhp-hr standard), regardless of when the standard has been triggered. For Option 2, the TLF calculation for a particular calendar year is based on engines 15 years of age and less. Therefore, the TLF for a fleet becomes numerically zero (0.00) when the youngest pre-1994 model year engine in the fleet is more than 15 years of age. Option 2 encourages, but does not require, retirement of engines at 15 years of age and greater. Engines that are older than 15 years and meet a 0.10 g/bhp-hr standard, do not influence the calculations for either the target level of the fleet (TLF) or the fleet level attained (FLA). In summary, EPA believes that the two compliance options will produce equivalent emissions reductions.

TRT's final comment is that, if EPA determines to provide additional time to certify equipment affecting Option 2, then the extension should be longer than January 1, 1998, based on TRT's appraisal of the amount of time necessary for certification.

This comment is consistent with a similar comment from JMI, and EPA agrees. With today's amendment, EPA will review equipment certified by July 1, 1998, and revise post-rebuild PM levels if necessary. A "July" date provides an operator using Option 2 with approximately 6 months to plan a rebuild strategy to be taken for the subsequent year.

#### VII. Environmental Impact

The environmental impacts expected to result from the retrofit/rebuild program are outlined in the final

Regulatory Support Document (RSD) for the final rule of April 21, 1993 and can be found in public docket A-91-28 (see ADDRESSES section above). Today's amendment does not result in any additional emissions reductions beyond those outlined in the RSD. However, today's amendment will help ensure that these expected reductions are actually achieved by closing an unintended compliance loophole. If transit operators were allowed to take advantage of the loophole in the 1993 final rule, then PM reductions will not be achieved at the level EPA originally anticipated. In addition, to the extent that transit operators can avoid installing low-emitting technology on buses, such buses will not reflect the "best retrofit technology \* \* \* reasonably achievable" as Congress required.

#### VIII. Economic Impact

Today's finalized amendment is expected to have no additional economic impact compared to the economic impact described in original regulations finalized on April 21, 1993. While failure to take today's final action could result in reduced costs for those transit operators that could take advantage of the loophole, no additional costs unaccounted for in the original regulations would be imposed on any transit operators as a result of today's action. In conjunction with the final rule of April 21, 1993, the costs associated with the program have previously been determined to be reasonable and the program to be cost-effective.

#### IX. Administrative Requirements

##### A. Reporting and Recordkeeping Requirements

Under the Paperwork Reduction Act of 1980, 44 U.S.C. 3501 *et seq.*, EPA must obtain OMB clearance for any activity that will involve collecting substantially the same information from 10 or more non-Federal respondents.

Subsequent to the final rule of April 21, 1993, EPA received OMB approval of the Information Collection Request (ICR) document having EPA ICR number 1702.01 and OMB ICR number 2060-0302. It is approved for use through July 31, 1997. That ICR document estimates the public reporting, record keeping, and testing burden for collecting information necessary to implement and oversee the Urban Bus Retrofit/Rebuild Program. The public burden is estimated to be a total of 7,214 hours, and includes estimates of time required of equipment manufacturers and transit operators. Equipment manufacturers are

required to establish and retain for a period of five years after equipment certification, information regarding the manufacturing and testing of retrofit equipment. This includes such information as production drawings, testing results and analysis, a description of quality control plans, and in-service data or analyses. Transit operators are required to maintain records concerning activities associated with retrofitting and rebuilding urban buses, such as reviewing program regulations, purchasing retrofit/rebuild equipment, engine rebuilds and replacement, and maintaining evidence showing compliance with the retrofit/rebuild program. Copies of the ICR document may be obtained from Sandy Farmer, Information Policy Branch (mail code 2136); EPA; 401 "M" Street SW, Washington DC, 20460, or by calling (202) 260-2740.

EPA is preparing an ICR document, to submit for OMB approval, that would continue information collection past the July 31, 1997 expiration date of the above-mentioned document. Comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, may be sent to: Chief, Information Policy Branch, EPA, 401 "M" Street S.W., 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."

#### B. Impact on Small Entities

EPA has determined that it is not necessary to prepare a regulatory flexibility analysis in connection with this final rule. EPA has also determined that this rule will not have a significant economic impact on a substantial number of small entities.

The urban bus operators affected by the program regulations are not small businesses. In addition, EPA determined that the original regulations of the Urban Bus Retrofit/Rebuild Program (58 FR 21359, April 21, 1993) did not have an adverse impact on a substantial number of small entities. Today's amendment does not impose any new costs above those included in the original rulemaking. Today's action will affect only a few businesses using the retrofit fleet averaging program and will likely have an effect solely on a small portion of the businesses' fleet. There may be benefit to those small business entities that manufacture retrofit/rebuild equipment, since urban bus operators may be required to use such equipment.

#### C. Executive Order 12866

Under Executive Order 12866 (58 FR 51735 (October 4, 1993)), EPA must determine whether a regulatory action is "significant" and therefore subject to OMB review and the requirements of the executive order. The order defines "significant regulatory action as one that is likely to result in a rule that may:

- (1) Have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;
- (2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;
- (3) Materially alter the budgetary impact of entitlement, grants, user fees, or loan programs or the rights and obligations of recipients thereof;
- (4) Raise novel legal policy issues arising out of legal mandate, the President's priorities, or the principles set forth in the order.

EPA has determined that this rule is not a "significant regulatory action" under the terms of Executive Order 12866 and is therefore not subject to OMB review.

#### D. Unfunded Mandates Act

Section 202 of the Unfunded Mandates Reform Act of 1995 (signed into law on March 22, 1995) requires EPA to prepare a budgetary impact statement before promulgating a rule that includes a Federal mandate that may result in expenditure by State, local, and tribal governments, in aggregate, or by the private sector, of \$100 million or more in any one year.

Section 203 of the Unfunded Mandates Reform Act requires EPA to establish a plan for obtaining input from and informing, educating and advising any small governments that may be significantly or uniquely affected by the rule.

Under section 205 of the Unfunded Mandates Act, EPA must identify and consider a reasonable number of regulatory alternatives before promulgating a rule for which a budgetary impact statement must be prepared. EPA must select from those alternatives the least costly, most costly, most cost effective, or least burdensome alternative that achieves the objectives of the rule, unless EPA explains why this alternative is not selected or the selection of this alternative is inconsistent with law.

Today's amendment contains no Federal mandates that result in expenditure by State, local, or tribal

governments, in aggregate, or by the private sector, of \$100 million in any one year. With the April 21, 1993 promulgation of the urban bus retrofit/rebuild regulations, EPA estimated that the nationwide cost would range from \$2 million to \$37 million per year, depending upon the year.

#### E. Submission to Congress and the General Accounting Office

Under 5 U.S.C. 801(a)(1)(A) as added by the Small Business Regulatory Enforcement Fairness Act of 1996, EPA submitted a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives and the Comptroller General of the General Accounting Office prior to publication of the rule in today's **Federal Register**. This rule is not "major rule" as defined by 5 U.S.C. 804(2).

#### List of Subjects in 40 CFR Part 85

Environmental protection, Confidential business information, Imports, Labeling, Motor vehicle pollution, Reporting and recordkeeping requirements, Research, Warranties.

Dated: March 19, 1998.

**Carol M. Browner,**  
Administrator.

For the reasons set out in the preamble, Part 85 of Title 40 of the Code of Federal Regulations is amended as follows:

#### PART 85—[AMENDED]

1. The authority citation for part 85 is revised to read as follows:

**Authority:** 42 U.S.C. 7401-7671q.

2. Section 85.1403 is amended by revising paragraph (c)(1)(iii)(B) introductory text, (c)(1)(iii)(C) introductory text, and (c)(1)(iv); removing paragraph (c)(1)(iii)(C)(6); and adding paragraph (c)(1)(iii)(D) to read as follows:

#### § 85.1403 Particulate standard for pre-1994 model year urban buses effective at time of engine rebuild or engine replacement.

\* \* \* \* \*

- (c) \* \* \*  
(1) \* \* \*  
(iii) \* \* \*

(B) For the TLF calculations as specified in paragraph (c)(1)(iv) of this section, post-rebuild particulate emissions levels for a specific engine model shall be equal to the following:

\* \* \* \* \*

(C) For TLF calculations as specified in paragraph (c)(1)(iv) of this section, post-rebuild particulate emission levels

for a specific engine model shall be equal to the following:

\* \* \* \* \*

(D) For TLF calculations as specified in paragraph (c)(1)(iv) of this section, post-rebuild particulate emission levels for a specific engine model shall be equal to the following:

(1) 0.10 g/bhp-hr, for any engine model (other than those indicated in paragraph (c)(1)(iii)(D)(4) of this section) for which equipment has been certified by July 1, 1998 as meeting the emission and cost requirements of paragraph (b)(1) of this section for all affected urban bus operators;

(2) For any engine model for which no equipment has been certified by July 1, 1998 as meeting the requirements of paragraph (b)(1) of this section for all affected urban bus operators, but for which equipment has been certified by

July 1, 1996 as meeting the emission and cost requirements of paragraph (b)(2) of this section for all affected urban bus operators, the post-rebuild particulate emission level shall equal the lowest emission level (greater than or equal to 0.10 g/bhp-hr) certified by July 1, 1998 for any such equipment;

(3) For any engine model for which no equipment has been certified by July 1, 1998 as meeting the emission and cost requirements of paragraph (b)(1) or (b)(2) of this section, the post-rebuild particulate emission level shall equal the pre-rebuild particulate level;

(4) For any engine model with a pre-rebuild particulate level below 0.10 g/bhp-hr, the post-rebuild particulate emission level shall equal the pre-rebuild particulate level;

(5) Notwithstanding paragraph (c)(1)(iii)(D)(3) of this section, if by July 1, 1998, no equipment has been certified

to meet the emission requirements of paragraph (b)(1) or (b)(2) of this section for any of the engine models listed in the table at paragraph (c)(1)(iii)(A) of this section, then the post-rebuild particulate levels shall be the pre-rebuild particulate levels specified in the table at paragraph (c)(1)(iii)(A) of this section; and

(6) Notwithstanding paragraph (c)(1)(iii)(D)(3) of this section, if by July 1, 1998, equipment has been certified to meet the emissions requirements of paragraph (b)(1) or (b)(2) of this section for any of the engine models listed in the table at paragraph (c)(1)(iii)(A) of this section, but no equipment has been certified by July 1, 1998 to meet the life-cycle cost requirements of paragraph (b)(1) or (b)(2) of this section, then the post-rebuild particulate levels shall be as specified in the following table:

Engine model	Model year sold	Pre-rebuild PM level (g/bhp-hr)	Post-rebuild PM level (g/bhp-hr)
DDC 6V92TA .....	1979-1987 .....	0.50	0.30
	1988-1989 .....	.30	.30
DDC 6V92TA DDECI .....	1986-1987 .....	.30	.30
DDC 6V92TA DDECII .....	1988-1991 .....	.31	.25
	1992 .....	.25	.25
	1993 (no trap) .....	.25	.25
	1993 (trap) .....	.07	.07
	1993 .....	.16	.16
DDC Series 50 .....	1973-1987 .....	.50	.50
DDC 6V71N .....	1988-1989 .....	.50	.50
	1985-1986 .....	.50	.50
DDC 6V71T .....	1973-1984 .....	.50	.50
DDC 8V71N .....	1990 .....	.59	.59
DDC 6L71TA .....	1988-1989 .....	.31	.31
	1990-1991 .....	.30	.30
DDC 6L71TA DDEC .....	1985-1987 .....	.65	.46
Cummins L10 .....	1988-1989 .....	.55	.46
	1990-1991 .....	.46	.46
	1992 .....	.25	.25
Cummins L10 EC .....	1993 (trap) .....	.05	.05
	Pre-1994 .....	.10	.10
Alternatively-fueled Engines .....	Pre-1988 .....	.50	.50
Other Engines .....	1988-1993 .....	(1)	(1)

(1) New engine certification level.

(iv) To determine which particulate (PM) emission level from paragraph (c)(1)(iii) of this section is used for a particular model year engine in a fleet for the TLF of a given calendar year, use the following table:

Model year of engine	Year for which TLF is being calculated	Particulate emission level (see § 85.1403(c)(1)(iii))
1993 .....	1996-1998 .....	Pre-Rebuild Level. <sup>1</sup>
	1999-2001 .....	Post-Rebuild Level. <sup>3</sup>
	2002-thereafter .....	Post-Rebuild Level. <sup>4</sup>
1992 .....	1996-1998 .....	Pre-Rebuild Level. <sup>1</sup>
	1999-2003 .....	Post-Rebuild Level. <sup>3</sup>
	2004-thereafter .....	Post-Rebuild Level. <sup>4</sup>
1991 .....	1996-1997 .....	Pre-Rebuild Level. <sup>1</sup>
	1998-2002 .....	Post-Rebuild Level. <sup>3</sup>
	2003-thereafter .....	Post-Rebuild Level. <sup>4</sup>
1990 .....	1996-1999 .....	Pre-Rebuild Level. <sup>1</sup>
	2000-thereafter .....	Post-Rebuild Level. <sup>4</sup>
1989 .....	1996-1999 .....	Pre-Rebuild Level. <sup>1</sup>
	2000-thereafter .....	Post-Rebuild Level. <sup>4</sup>
1988 .....	1996-1998 .....	Pre-Rebuild Level. <sup>1</sup>

Model year of engine	Year for which TLF is being calculated	Particulate emission level (see § 85.1403(c)(1)(iii))
1987	1999–thereafter	Post-Rebuild Level. <sup>3</sup>
	1996–1998	Post-Rebuild Level. <sup>2</sup>
1986	1999–thereafter	Post-Rebuild Level. <sup>3</sup>
	1996–1997	Pre-Rebuild Level. <sup>1</sup>
1985	1998–thereafter	Post-Rebuild Level. <sup>3</sup>
	1996	Pre-Rebuild Level. <sup>1</sup>
1984	1997–thereafter	Post-Rebuild Level. <sup>2</sup>
	1996–thereafter	Post-Rebuild Level. <sup>2</sup>
Pre-1984	1996–thereafter	Pre-Rebuild Level. <sup>1</sup>

<sup>1</sup> The pre-rebuild PM level established in paragraph (c)(1)(iii)(A) of this section.  
<sup>2</sup> The post-rebuild PM level established pursuant to paragraph (c)(1)(iii)(B) of this section.  
<sup>3</sup> The post-rebuild PM level established pursuant to paragraph (c)(1)(iii)(C) of this section.  
<sup>4</sup> The post-rebuild PM level established pursuant to paragraph (c)(1)(iii)(D) of this section.

\* \* \* \* \*

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 BILLING CODE 6560–50–P

**GENERAL SERVICES ADMINISTRATION**

**41 CFR Part 302–11**

[FTR Amendment 71]

RIN 3090–AG48

**Federal Travel Regulation; Relocation Income Tax (RIT) Allowance Tax Tables**

**AGENCY:** Office of Governmentwide Policy, GSA.

**ACTION:** Final rule.

**SUMMARY:** The Federal, State, and Puerto Rico tax tables for calculating the relocation income tax (RIT) allowance must be updated yearly to reflect changes in Federal, State, and Puerto Rico income tax brackets and rates. The Federal, State, and Puerto Rico tax

tables contained in this rule are for calculating the 1998 RIT allowance to be paid to relocating Federal employees.

**DATES:** This final rule is effective January 1, 1998, and applies for RIT allowance payments made on or after January 1, 1998.

**FOR FURTHER INFORMATION CONTACT:** Calvin L. Pittman, Office of Governmentwide Policy (MTT), Washington, DC 20405, telephone 202–501–1538.

**SUPPLEMENTARY INFORMATION:** This amendment provides the tax tables necessary to compute the relocation income tax (RIT) allowance for employees who are taxed in 1998 on moving expense reimbursements.

The General Services Administration has determined that this rule is not a significant regulatory action for the purposes of Executive Order 12866 of September 30, 1993. This final rule is not required to be published in the **Federal Register** for notice and comment. Therefore, the Regulatory

Flexibility Act does not apply. This rule also is exempt from Congressional review prescribed under 5 U.S.C. 801 since it relates solely to agency management and personnel.

**List of Subjects in 41 CFR Part 302–11**

Government employees, Income taxes, Relocation allowances and entitlements, Transfers.

For the reasons set out in the preamble, 41 CFR part 302–11 is amended to read as follows:

**PART 302–11—RELOCATION INCOME TAX (RIT) ALLOWANCE**

1. The authority citation for part 302–11 is revised to read as follows:

**Authority:** 5 U.S.C. 5738; 20 U.S.C. 905(a); E.O. 11609, 36 FR 13747, 3 CFR, 1971–1975 Comp., p. 586.

2. Appendixes A, B, C, and D to part 302–11 are amended by adding the following tables at the end of each appendix, respectively:

**Appendix A to Part 302–11—Federal Tax Tables For RIT Allowance**

\* \* \* \* \*

**Federal Marginal Tax Rates by Earned Income Level and Filing Status—Tax Year 1997**

The following table is to be used to determine the Federal marginal tax rate for Year 1 for computation of the RIT allowance as prescribed in § 302–11.8(e)(1). This table is to be used for employees whose Year 1 occurred during calendar year 1997.

Marginal tax rate Percent	Single taxpayer		Heads of household		Married filing jointly/qualifying widows & widowers		Married filing separately	
	Over	But not over	Over	But not over	Over	But not over	Over	But not over
15	\$7,067	\$32,674	\$12,963	\$46,966	\$16,798	\$59,856	\$8,702	\$29,669
28	32,674	71,647	46,966	104,632	59,856	123,931	29,669	62,023
31	71,647	141,006	104,632	161,381	123,931	180,221	62,023	92,072
36	141,006	288,900	161,381	293,567	180,221	299,695	92,072	152,835
39.6	288,900	.....	293,567	.....	299,695	.....	– 152,835	.....

**Appendix—B to Part 302–11—State Tax Tables for RIT Allowance**

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