ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 86

[EN-87-02; FRL-3682-9]

RIN 2060-AC39

Control of Air Pollution From New Motor Vehicles and New Motor Vehicle Engines; Nonconformance Penalties for Heavy-Duty Engines and Heavy Duty Vehicles, Including Heavy Light-Duty Trucks

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of proposed rulemaking.

SUMMARY: EPA is proposing that nonconformance penalties (NCPs) be made available for specific emission standards taking effect in the 1991 model year. The availability of NCPs would allow a manufacturer of heavy-duty engines (HDEs) or heavy-duty vehicles (HDVs, which include heavy light-duty trucks) whose engines or vehicles fail to conform with certain applicable emission standards, but do not exceed a designated upper limit, to be issued a certificate of conformity upon payment of a monetary penalty.

In addition to the specific emission standards for which NCPs would be made available, EPA is proposing upper limits and penalty rates for those emission standards. EPA is also proposing several revisions and additions to the generic NCP rule (50 FR 35374, August 30, 1985) governing whether and how EPA may make NCPs available for specific standards.

Other issues included are the interaction between the NCP and emissions averaging programs, the issue of retroactivity of NCPs, and the issue of overpayment of an NCP.

Regulations affected by this rulemaking are codified in subpart L of 40 CFR part 86.

DATES: *Public Hearing:* If requested, EPA will hold a public hearing regarding this proposed rule on May 16, 1990, beginning at 10 a.m. Any person desiring to present oral testimony must request the hearing by noon, EDT, May 9, 1990. Requests for, or questions about, the hearing should be directed to the EPA contact person listed below. To the extent possible, any person desiring to participate in a hearing should, prior to the hearing, notify the EPA contact person of his or her intention and submit an outline of the points to be discussed and the time needed to discuss these points. Pursuant to section 307 of the Clean Air Act, the record of the hearing, if held, will be kept open for 30 days following its conclusion to provide an opportunity for submission of rebuttal or other information.

Public Comment: All comments should be received on or before May 25, 1990, or within 30 days following the conclusion of the public hearing, if held, whichever is later.

ADDRESSES: The hearing will take place at the MOD Conference Room, 499 S. Capitol Street, Suite 202, Washington, DC 20003. Any person wishing to attend should call the EPA contact person, listed below, to determine if the hearing will be held.

Send written comments to: Public Docket EN-87-02 at the Air Docket (LE-131), US Environmental Protection Agency, 401 M Street SW., Washington, DC 20460. If possible, a copy of the written comments should be submitted to the EPA contact person listed below.

Public Docket: Copies of materials relevant to this rulemaking proceeding are contained in Public Docket EN-87-02 at the Air Docket of the US Environmental Protection Agency, 401 M St. SW., Washington, DC 20460, and are available for review in Room M-1500 between the hours of 8 a.m. to noon and 1 to 3:30 p.m. on weekdays. As provided in 40 CFR part 2, a reasonable fee may be charged for copying services.

FOR FURTHER INFORMATION CONTACT: Mr. H. Scott Rauenzahn, Manufacturers Operations Division (EN-340F), US Environmental Protection Agency, 401 M St., SW. Washington, DC 20460, telephone (202) 382-2496.

SUPPLEMENTARY INFORMATION:

I. Statutory Authority

Section 206(g) of the Clean Air Act (the Act), 42 U.S.C. 7525(g), requires EPA to issue a certificate of conformity for HDEs or HDVs which exceed an applicable section 202(a) emissions standard, but do not exceed an upper limit associated with that standard, if the manufacturer pays an NCP established by rulemaking. In placing section 206(g) in the Clean Air Act amendments of 1977, Congress intended NCPs as a response to perceived problems with technology-forcing heavy-duty emissions standards. (It should be noted, however, that the existence of NCPs does not change the criteria under which the standards have been and will be set under section 202). Following *International Harvester* v. *Ruckelshaus*, 478 F.2d 615 (D.C. Cir. 1973), Congress realized the dilemma that technology-forcing standards were likely to cause. If strict standards were maintained, then some manufacturers, "technological laggards," might be unable to comply initially and would be forced out of the marketplace. NCPs were intended to remedy this potential problem; the laggards would have a temporary alternative to permit them to sell their engines or vehicles through payment of a penalty, yet leaders would not suffer an economic disadvantage compared to nonconforming manufacturers, because the NCP would be based, in part, on the amount of money the laggard and his customer saved from the nonconforming engine or vehicle.

Under section 206(g)(1), NCPs may be offered for HDVs or HDEs, which are engines to be installed in HDVs. The penalty may vary by pollutant and by class or category of vehicle or engine.

HDVs are defined by section 202(b)(3)(C) as vehicles in excess of 6,000 pounds gross vehicle weight rating (GVWR). HDVs include the part of the light-duty truck (LDT) class between 6,001 and 8,500 pounds GVWR (the heavy light-duty trucks, or HLDTs). It is important to note that HLDTs are not synonymous with another category referred to as light-duty trucks—category 2 (LDT2s). LDT2s are trucks with loaded vehicle weight greater than 3,750 pounds, while HLDTs are that portion of the LDT2 category which have a GVWR greater than 6,000 pounds. It is possible to have a LDT2 with GVWR less than or equal to 6,000 pounds. Such trucks are not HDVs and are not eligible for NCPs.

Section 206(g)(3) requires that NCPs:

- Increase with the degree of emission nonconformity;
- Increase periodically to provide incentive for nonconformig manufacturers to achieve the emission standards; and
- Remove competitive disadvantage to conforming manufacturers.

Section 206(g) authorizes EPA to require testing of production vehicles or engines in order to determine the emission level on which the penalty is based. If the emission level of a vehicle or engine exceeds an upper limit of nonconformity established by EPA through regulation, the vehicle or engine would not qualify for an NCP under section 206(g) and no certificate of conformity could be issued to the manufacturer. If the emission is below the upper limit, it becomes the "compliance level," which is also the benchmark for warranty and recall liability; the manufacturer who elects to pay the NCP is liable for vehicles or engines that exceed the compliance level in-use. The manufacturer does not have in-use warranty or recall liability for emissions levels above the standard but below the compliance level.

II. Availability of Nonconformance Penalties

A. Review of NCP Eligibility Criteria

The generic NCP rule (Phase I) established three basic criteria for determining the eligibility of emission standards for nonconformance penalties in any given model year. First, the emission standard in question must become more difficult to meet. This can occur in two ways, either by the emission standard itself becoming more stringent, or due to its interaction with another emission standard that has become more stringent.

Second, substantial work must be required in order to meet the emission standard. "Substantial work" usually means the application of technology not previously used in that vehicle or engine class/subclass, or a significant modification of existing technology, in order to bring that vehicle/engine into compliance. Minor modifications or calibration changes are not normally classified as substantial work.

Third, a technological laggard must be likely to develop. A technological laggard is defined as a manufacturer who cannot meet a particular emission standard due to technological (not economic) difficulties and who, in the absence of NCPs, might be forced from the marketplace. EPA is to make the determination that a technological laggard is likely to develop, based in large part on the above two criteria. However, these criteria are not always sufficient to determine the likelihood of a technological laggard. An emission standard may become more difficult to meet and substantial work may be required for compliance, but if that work merely involves transfer of well-developed technology from another vehicle class, it is unlikely that a technological laggard would develop. Therefore, the determination of whether a technological laggard is likely to exist entails judgment as well.

B. Phase II NCPs

The above criteria were used to determine eligibility for NCPs during Phase II of the NCP rulemaking (50 FR 53465, December 31, 1985). NCPs were offered for the following 1987 and 1988 model year standards: the particulate matter (PM) standard for 1987 diesel-fueled light-duty trucks with loaded vehicle weight in excess of 3,750 pounds (LDDT2s), the 1987 gasoline-fueled light HDE (LHDGE) HC and CO emission standards, the 1988 HDDE PM standard, and the 1988 HDDE NO_x standard. As discussed in the Phase II preamble, NCPs were considered, but not offered, for the 1987 HLDT NO_x standard and the 1988 (later, the 1990) HDGE NO_x standard.

Since the Phase II NCP rule, there have been several developments regarding two of the emission standards mentioned above that affect the 1990 and 1991 model year emission standards. First, EPA recently revised the 1987 and later model year LDDT2 PM standard from the original level of 0.26 g/mi, which would possibly have required the use of trap-oxidizers (traps), to 0.50 and 0.45 g/mi for the 1987 and 1988 model years, respectively, which will not require traps. At the same time, EPA instituted a more stringent trap-based standard of 0.13 g/mi for 1991 and later model year LDDT2s (52 FR 47858, October 31, 1988). In that rulemaking, EPA also delayed the availability of NCPs for HLDDTs under the LDDT2 PM standard until 1991 to accompany the more stringent standard and deferred determination of the penalty rate to this rulemaking in order to allow consideration of more recent information on the cost of compliance with that standard.

Second, the HDE NO_x standard, originally promulgated to take effect in 1988, was revised to take effect in 1990 (52 FR 47858, December 16, 1987) as a result of *NRDC* v. *Thomas*, 805 F.2d 410 (D.C. Cir. 1986). Consequently, the accompanying NO_x NCP for HDDEs was also delayed until 1990. As stated previously, EPA decides not to offer NCPs for the NO_x standard as it applied to HLDTs and HDGEs and the delay of the HDE NO_x standard does not change this decision.

C. 1990 and Later Model Year Methanol Standards

With the recent adoption of emission standards for 1990 and later model year methanol-fueled vehicles and engines (54 FR 14426, April 11, 1989), the question arises as to whether NCPs should be offered for these methanol engine standards. Regulated pollutants from methanol-fueled engines are the same as those now controlled from gasoline- or diesel-fueled (collectively referred to herein as petroleum-fueled) LDT2s and HDEs, *i.e.*, HC, CO, NO_x, and PM, and the standards are numerically identical. Available test data suggest that methanol-fueled engines should experience no more difficulty in complying with the applicable HC and CO emission standards, and should experience less difficulty in complying with the NO_x and PM standards than their petroleum-fueled counterparts.

The similarity in emission characteristics between petroleum-fueled engines and their Otto- and Diesel-cycle methanol-fueled counterparts also allows the application of similar control technologies to methanol-fueled vehicles. Available test data suggest that existing gasoline-fueled Otto-cycle and petroleum-fueled Diesel-cycle engine emission control methods can be applied to equivalent methanol-fueled engines without substantial effort on the part of manufacturers. Although EPA determined that substantial work was necessary for HDGEs to meet the 1987 HC and CO emission standards and offered NCPs for those pollutants, EPA believes that by the 1990 model year manufacturers will have developed the technology to comply with the 1987 HC and CO standards. As previously mentioned, HDGE emission control methods can be applied to equivalent methanol-fueled engines without substantial effort. Consequently, methanol-fueled engines should not require substantial work to bring these engines into compliance.

Furthermore, since there are presently no commercially available methanol-fueled LDT2s or HDEs, it is difficult to determine if a technological laggard will exist. The available technological evidence is to the contrary. Therefore, EPA proposes to not offer NCPs for the methanol standards at this time because EPA believes that compliance with these new methanol emission standards can be achieved without substantial effort on the part of manufacturers. However, since there are currently no production methanol-fueled vehicles or engines, EPA seeks comment as to the possible need for methanol-fueled HLDT/HDE NCPs.

D. NCP Eligibility for 1991 and Later Emission Standards

Because EPA was operating under the constraints of a court order (*NRDC* vs. *Ruckelshaus*, D.D.C., No. 87-758, September 14, 1984) to publish the Phase II final rule by December 31, 1985, NCP determinations were made only for near-term (1987 and 1988 model year) standards. Also, the availability of NCPs for the 0.13 g/mi PM standard for 1991 and later HLDDTs was addressed in a separate rulemaking (52 FR 47858, October 31, 1988). This proposal addresses whether NCPs should be made available for the 1991 model year HDE standards.

Four standards are eligible for NCPs (and have not previously been considered for NCPs) as a result of emission standards being revised. They are:

- 1991 HDDE urban bus engine particulate standard: 0.10 g/BHP-hr,

- 1991 HDDE particulate standard for other than urban buses: 0.25 g/BHP-hr,
- 1991 HDDE NO_x standard: 5.0 g/BHP-hr, and
- 1991 HDGE NO_x standard: 5.0 g/BHP-hr.

The eligibility of each of these standards for NCPs is discussed below.

1. 1991 Petroleum-Fueled HDDE Particulate Matter Standard for Urban Bus Engines

Tightening the HDDE PM standard applicable to 1991 and later model year petroleum-fueled urban bus engines from 0.60 g/BHP-hr to 0.10 g/BHP-hr represents a significant increase in stringency. To meet the tightened standard, petroleum-fueled urban bus engines will have to be equipped with trap oxidizers or other aftertreatment devices that are being developed for application to HDEs, including urban buses. Therefore, EPA believes that manufacturers will have to make substantial efforts to achieve compliance and that there is a possibility that a technological laggard may develop. The Agency consequently proposes to offer NCPs for the 1991 petroleum-fueled urban bus diesel particulate standard.

The President's Clean Air Proposal contains a section which addresses urban buses. The Administration's proposal would require that new urban buses in cities which have a population of greater than one million people operate on clean alternative fuel, such as methanol, ethanol, or compressed natural gas, beginning in the year 1991. Also, the President's Clean Air Act proposal would relax, from 1991 through 1993, the urban bus engine PM standard to 0.25 g/BHP-hr. If this proposal is enacted, or if for some other reason the standard is relaxed to 0.25 g/BHP-hr, then urban bus engines would be considered, for NCP purposes, part of the heavy heavy-duty diesel subclass.

2. 1991 Particulate Matter Standard For Petroleum-Fueled HDDEs Other Than Urban Bus Engines

Although the 0.25 g/BHP-hr standard for other petroleum-fueled HDDEs is not as stringent as the urban bus standard, it nevertheless represents a significant increase in stringency over the current 0.60 g/BHP-hr standard. EPA believes (50 FR 10606, March 15, 1985) that a substantial portion of the HDDE fleet will require significant engine changes and/or other new or improved technology to comply with this standard. Some manufacturers have claimed that trap oxidizers may still be needed for some engine families. This would represent the application of emission control technology not previously used on HDDEs. Even if trap oxidizers or other aftertreatment devices are not needed to meet the 0.25 g/BHP-hr standard, achieving engine-out levels low enough to meet the standard will still require substantial effort on the part of manufacturers. Therefore, EPA considers it possible that a technological laggard will develop and proposes to offer NCPs in 1991 for the 0.25 g/BHP-hr standard for petroleum-fueled HDDEs other than urban bus engines.

3. 1991 Petroleum-Fueled HDDE NO_x Standard (For All Petroleum-Fueled HDDEs)

Tightening the HDDE NO_x standard from 6.0 to 5.0 g/BHP-hr represents a 17 percent increase in stringency, as compared to a 44 percent increase for the 1988 6.0 g/BHP-hr NO_x standard over the previous 10.7 g/BHP-hr NOx standard. Also, current certification levels indicate that many 1988 and 1989 model year engines are capable of meeting a 5.0 g/BHP-hr standard with very little additional effort. Thus, there would appear to be little need for NCPs for the 5.0 g/BHP-hr NO_x standard, based solely on the increase in stringency from the previous standard. However, when this increase is coupled with the increased stringency of the 1991 PM standard, there appears to be a need for an NCP. As was stated above, there will be a substantial increase in the stringency of the PM standard, and efforts to achieve the more stringent PM standard are likely to place upward pressure on NOx levels, especially if they involve changes in injection timing. This is particularly true for urban buses, which must meet a much tighter 0.10 g/BHP-hr PM standard, or those engines that do not utilize traps or other aftertreatment PM control technology to meet the 0.25 g/BHP-hr PM standard. The likelihood of a technological laggard developing as a result of choosing an unsuccessful compliance strategy is thereby increased, so EPA proposes to offer an NCP for the 1991 5.0 g/BHP-hr petroleum-fueled HDDE NO_x standard.

4. 1991 Petroleum-Fueled HDGE NOx Standard

NCPs were not offered for the 1988 HDGE NOx standard of 6.0 g/BHP-hr. EPA found that average 1985 certification levels for gasoline-fueled engines utilized in vehicles in excess of 14,000 pounds. GVWR (HHDGEs) were 7.0 g/BHP-hr, indicating that the new standard would not be significantly more difficult to meet, and that the vast majority of the manufacturers could meet the standard with only minor calibration changes. Gasoline-fueled engines utilized in vehicles between 8501 and 14,000 pounds GVWR (LHDGEs) were expected to use catalyst technology to meet the 1987 HC/CO standards, leaving manufacturers room to calibrate their engines for lower NO_x emissions. Since neither of these strategies represented substantial work to meet the NO_x standard, EPA did not offer NCPs for the 1988 petroleum-fueled HDGE NO_x standard.

The current situation with respect to control technology is the same as that described above, although thus far utilization of catalyst technology in LHDGEs has been fairly limited. Some manufacturers appear to have opted for NCPs for the LHDGE HC/CO standards in 1987 and 1988 (or in some cases to have certified as LDTs), and this may have delayed the introduction of catalyst technology for some of these engines. Delay in the implementation of the 6.0 g/BHP-hr NO_x standard to 1990 may also have postponed the advent of the new technology for some manufacturers. However, EPA believes that both of these developments have slowed, but not derailed, the eventual transition from non-catalyst to catalyst technology for LHDGEs. It should also be noted that all three HDGE manufacturers currently use catalyst technology on their LDTs.

All three HDGE manufacturers have certified at least one engine family using catalyst technology for 1988 or 1989. Two utilized oxidation catalysts and one used a three-way catalyst. Two manufacturers have combined catalyst technology with fuel injection, and have certified engines at NO_x levels comfortably below the 5.0 g/BHP-hr standard without exceeding the HC and CO standards. The third manufacturer certified an engine in 1988 using carburetor/oxidation catalyst technology at a NO_x level of 8.8 g/BHP-hr at HC and CO levels well below the respective standards.[1] For the 1989 model year, this manufacturer has dropped the catalyst version and utilized NCPs or certified under the LDT protocols (using catalyst technology in the latter instance.) This manufacturer has also utilized three-way catalyst technology in LDT versions of essentially the same vehicle/engine combinations found in its heavy-duty applications, and certified a HDG family in 1989 under the LDT option using catalyst technology and fuel injection, so a transfer of LDT technology to these heavy-duty applications is feasible.

[1] Control of Air Pollution from New Motor Vehicles and New Motor Vehicle Engines: Federal Certification Test Results for the 1988 Model Year, U.S. EPA, 1988.

In view of the above, EPA continues to believe that fuel-injected engines with catalysts represent the most likely future LHDGE technology for meeting NO_x, as well as other applicable standards. Discussions with manufacturers have indicated that most if not all manufacturers will phase out carburetors in favor of fuel injection by 1991, and the HDGE manufacturers are either utilizing catalysts or have them in advanced stages of development. The certification results clearly show that current engines using catalyst technology combined with fuel injection have already achieved NO_x levels below the 5.0 g/BHP-hr standard. This indicates to EPA that the standard can be met using a transfer of current LDT technology, without the development of a technological laggard.

One manufacturer of LHDGEs requested during the comment period for the trading and banking proposal (54 FR 22652) that NCPs be made available for the 1991 HDGE NO_x standard, and gave two reasons why they felt NCPs were needed. First, this manufacturer was concerned that credit prices may be excessive unless capped by an NCP. Second, the manufacturer was concerned that, due to the limited number of LHDGE manufacturers, credits might not be available if needed in the event an engine or vehicle family was found in noncompliance, as after an SEA failure. However, neither of these two concerns are grounds for offering an NCP under existing regulations. EPA doubts that section 207(g) of the Act could be construed to authorize NCPs on the suggested basis, given that Congress' clear intent was to provide NCPs where needed to prevent a manufacturer from being forced out of the market and not to cap credit prices or provide an alternative to purchasing credits for a standard for which no technological laggard is likely. EPA therefore proposes not to offer NCPs for LHDGEs for NO_x in 1991.

NO_x certification levels for the heavier 1987 and 1988 model year HHDGEs are at the same levels or lower than they were in 1985 at the time of the Phase II rulemaking. For 1989, even though the current standard is 10.7 g/BHP-hr, the two manufacturers that certified separate HHDGE families achieved NO_x emissions levels as low as 2.0 and 3.8 g/BHP-hr, respectively, for certain configurations.[2] These levels lead EPA to believe that the 5.0 g/BHP-hr standard can be achieved in current technology engines without the development of a technological laggard. The Agency therefore proposes not to make NCPs available for the 1991 HDGE NO_x standard, for many of the same reasons that NCPs were not made available for the 1988 (later, the 1990) 6.0 g/BHP-hr NO_x standard.

E. Control of Diesel Fuel Sulfur

If the sulfur content of diesel fuel were controlled, engine-out particulate levels would decrease, which could affect the compliance strategies chosen by manufacturers to meet the 1991 and later model year HDDE PM standards. During the PM standards rulemaking, some manufacturers expressed concern that the sulfur in diesel fuel would plug trap-oxidizers and that sulfates from high sulfur diesel fuel would constitute a large fraction of the allowable emissions under the proposed PM standard. Some of the manufacturers accordingly recommended that EPA regulate diesel fuel sulfur content. As a result, the Agency has studied the issue, and has proposed that diesel fuel sulfur level be controlled (54 FR 35276, August 24, 1989).

Control of diesel fuel sulfur reduces engine-out particulate emissions, which could decrease the cost of the PM standards to manufacturers and consumers. This could in turn affect the dollar amount of any NCP penalties. However, even assuming diesel fuel sulfur control, EPA believes that the 1991 PM standards meet the criteria for NCP availability. The 1991 PM standards are of such stringency that EPA believes manufacturers will have to expend significant effort to achieve compliance throughout the useful life of the engine. If usage of aftertreatment devices is reduced by sulfur control, significant effort will still be needed to assure that engine-out emissions are low enough to meet the standards. As a result, EPA believes the likelihood exists that a technological laggard may develop, and proposes to offer NCPs regardless of any controls that may be placed on diesel fuel sulfur.

F. Interaction with Other Standards

As was stated above, emission standards may also become more difficult to meet due to interaction with other standards that have become more stringent. Tradeoffs between standards can occur when a control strategy that decreases emissions of one pollutant has the potential to increase emissions of another. An example of this phenomenon may be seen in the tradeoff between NO_x, HC, and PM emissions when combustion temperature, through injection timing changes, is used to control emissions. Increased timing retard decreases NO_x emissions, but tends to increase particulate and HC emissions. Similar interactions may occur for other control strategies. This section reviews a number of standards that have not themselves changed, but which may be affected by the more stringent 1991 NO_x and PM standards.

1. 1991 LHDGE HC and CO Standards (Interaction With 1991 HDGE NO_x Standard)

NCPs were offered for the more stringent 1987 LHDGE HC and CO standards of 1.1 g/BHP-hr and 14.4 g/BHP-hr, respectively, since they represented approximately 90 percent reductions from previous levels, and were thus difficult to meet. EPA expected that manufacturers would use oxidation catalysts to meet these standards, which would involve substantial work for application to HDGEs. In 1991, the HC and CO standards do not change, but the NO_x standard is tightened from the current level of 6.0 g/BHP-hr to 5.0 g/BHP-hr, which could potentially make it more difficult for manufacturers to meet the HC and CO standards.

However, EPA has examined current certification levels for HC, CO, and NO_x emissions and concludes that manufacturers should encounter little difficulty meeting all three standards in 1991. Although manufacturers generally utilized NCPs or certified under LDT protocols, the 1988 model year saw the introduction of the first fuel-injected LHDGEs equipped with three-way catalysts. As was discussed above, 1989 model year catalyst-equipped engines exhibit NO_x emissions in the 4 to 6 g/BHP-hr range at HC and CO levels substantially below the 1.1 g/BHP-hr and 14.4 g/BHP-hr standards. Based on this development and discussions with manufacturers regarding future technology plans, EPA expects that by 1991 all manufacturers will utilize fuel injection and catalyst technology to meet the HC and CO standards. Meeting the HC and CO standards at 5.0 g/BHP-hr NO_x levels will thus likely involve transfer of a well developed technology from LDTs which will not constitute substantial effort on the part of the manufacturer. EPA therefore proposes not to offer revised NCPs for the 1991 LHDGE HC and CO standards. However, those promulgated in 1985 remain available.

[2] Control of Air Pollution from New Motor Vehicles and New Motor Vehicles Engines: Federal Certification Test Results for the 1989 Model Year, U.S. EPA, 1989.

2. 1991 HHDGE HC and CO Standards (Interaction With 1991 HDGE NO_x Standard)

EPA did not offer NCPs for the 1987 HHDGE HC and CO standards, since the standards were much less stringent than the LHDGE standards, and the then current certification levels indicated that these standards could be met by most, if not all, HHDGEs without substantial effort on the part of manufacturers. Available 1989 model year HHDGE certification data indicate that manufacturers can meet the 5.0 g/BHP-hr NO_x standard at HC and CO levels that are substantially less than applicable standards require without catalysts. Catalyzed versions of the same basic engine certified as LHDGE can also be used in HHDGE applications. EPA therefore does not believe that the HHDGE HC and CO standards will be substantially more difficult for manufacturers to meet or that a technological laggard will develop because of interaction with the 1991 NO_x standard, and proposes not to offer NCPs for the HHDGE HC and CO standards.

3. 1991 HDDE HC Standards (Interaction With 1991 HDDE NO_x and PM Standards)

Although some of the possible modifications available to meet the 1991 5.0 g/BHP-hr NO_x emission standard could cause some slight upward pressure on HC emissions, it must be remembered that manufacturers will also have to meet more stringent PM standards in 1991. In general, modifications that result in reduced particulate emissions also reduce HC emissions, which led EPA to conclude during the 1985 standards rulemaking that manufacturers should be able to comply with the NO_x and PM standards with little or no increase in HC levels.

An indication that this is true is provided by 1988 and 1989 certification data. A number of families have already demonstrated compliance with 5.0 g/BHP-hr standards with PM levels of about 0.5 g/BHP-hr and HC levels less than, and in most cases substantially less than, 1.0 g/BHP-hr using only improvements in current fuel system technology and other engine modifications. Many other families show emission levels only slightly higher than those. The engine modifications and aftertreatment devices likely to be used to meet the 0.10 and/or 0.25 g/BHP-hr PM standards in 1991 should not increase HC emissions, but are likely to decrease HC levels. EPA therefore concludes that compliance with the HDDE HC standard will not become substantially more difficult as a result of the more stringent NO_x and PM standards and proposes not to offer NCPs for the HDDE HC standard in 1991.

4. 1991 HDDE Smoke Standards (Interaction With 1991 PM and NO_x Standards)

All HDDE manufacturers are currently meeting the smoke standards. No revision to these standards has been proposed. Also, better emission controls in response to the revisions to the particulate matter standard for the 1991 model year would tend to lower smoke emissions. Additional controls to lower the NO_x emissions to meet the revised 1991 model year NO_x standard may tend to increase particulates and, hence smoke emissions. However, manufacturers must maintain PM emissions to at least that of the previous standard (since the previous standard is the applicable upper limit for PM NCP purposes), they have demonstrated their ability to comply with the smoke standard at that PM level. Therefore, EPA does not believe that substantial effort will be required for compliance with the smoke standards as a result of the interaction with the NO_x standard, and therefore does not believe NCPs for the HDDE smoke standards are warranted.

5. 1991 Idle CO (Interaction With 1991 HDGE NO_x Standard)

The idle CO standard applies only to HDGEs utilizing aftertreatment devices (i.e., catalysts). During the rulemaking process that established this standard, EPA presented data to show that emissions from vehicles with properly-operated catalysts should be well below the established standard. Data from current certification engines tend to confirm this earlier conclusion. Certification levels for current engines with aftertreatment devices are all less than twenty (20) percent of the standard and most are less than ten percent of the standard, at NO_x emission levels close to the 1991 standard. This indicates to EPA that even if a tradeoff were involved, manufacturers would have sufficient margin to meet the idle CO standard without substantial effort. The Agency therefore proposes not to offer an NCP for idle CO.

III. Penalty Rates

Since this rule is a continuation of previous NCP rulemakings, the discussion of Penalty Rates in the Phase II rulemaking (50 FR 53463, December 31, 1985) as well as the Phase I rulemaking (50 FR 35374, August 30, 1985) are incorporated by reference. This section briefly reviews NCPs and discusses how EPA arrived at the penalty rates in this rule. Emphasis will be placed on procedures different from those used to derive penalty rates during Phase II.

A. Parameters

As in the Phase II rule, EPA is specifying values for the following parameters in the NCP formula for each standard: COC_{50}, COC_{90}, MC_{50}, and F. The NCP formula is the same as that promulgated in the Phase I rule.

COC_{50} is an estimate of the industrywide average incremental cost per engine (references to engines are intended to include vehicles as well) associated with meeting the standard for which an NCP is offered. COC_{50} is technically based on typical engine technology, as nearly as EPA can identify it. As in the Phase II rule, costs include additional manufacturer costs and additional owner costs. The Phase II rule did not include certification costs in the calculation of COC_{50}, and none will be allowed in this rule because both complying and noncomplying manufacturers must incur certification costs.

COC_{90} is EPA's best estimate of the 90th percentile incremental cost per-engine associated with meeting the standard for which an NCP is offered. COC_{90} is technically based on a near worst case technology, as nearly as EPA can identify it. COC_{90}, like COC_{50}, includes both manufacturer and owner costs, but not certification costs.

MC_{50} is the steepest segment of the curve describing industrywide average marginal cost of compliance with the NCP standard for engines in the NCP category. MC_{50} is measured in dollars per g/BHP-hr for HDEs and in dollars per gram per mile (g/mi) for LDTs.

F is a factor used to derive MC_{90}, the 90th percentile marginal cost of compliance with the NCP standard for engines in the NCP category. MC_{90} is defined as being the slope of the penalty rate curve near the standard and is equal to MC_{50} multiplied by F. For this rulemaking, as was the case in the Phase II rule, EPA has determined that no reasonable estimate of MC_{90} can be made based on existing marginal cost data and has thus set F at a presumptive value of 1.2. This approach was generally supported by commenters on the Phase II rulemaking.

B. Parameter Values

The derivation of each of the proposed cost parameters is described in detail in a support document entitled "Nonconformance Penalty Rates for 1991 and Later Model Year Heavy-duty Diesel Particulate Matter (PM) and

Oxides of Nitrogen (NO_x) Standards", which is available in the public docket for this rulemaking.

EPA is proposing the following NCPs based on "medium sulfur" (approximately 0.10 wt. %) certification fuel for non-urban bus engines and low sulfur (0.05 wt. %) for urban bus engines. The "medium sulfur" fuel assumption is dependent on the outcome of the proposal to control the sulfur content of diesel fuel (54 FR 35276 August 24, 1989). If another diesel fuel sulfur limit is promulgated, costs may be slightly different than those listed below. Costs may differ because the sulfur level in diesel fuel directly influences the engine-out particulate levels of a diesel engine. For particulate matter NCPs, higher sulfur fuel would result in slightly higher costs; lower sulfur fuel in slightly lower costs. For NO_x NCPs, increased particulate matter control can raise NO_x levels. Therefore, one would expect that higher sulfur fuel would result in slightly higher NO_x penalty rates; lower sulfur fuel would result in slightly lower NO_x penalty rates. EPA believes that "low sulfur" fuel will be used in urban bus engines since many transit authorities already use such a fuel to fuel their current busses and since the trap based emission control strategies that will likely be used in urban bus engines to meet the 0.10 g/BHP-hr standard will be aided by use of low sulfur fuel.

1. 1991 Petroleum-fueled HDDE Particulate Matter Standard for Urban Bus Engines

EPA proposes that the following values (in 1989 dollars) be used in the NCP formula for the 1991 0.10 g/BHP-hr PM standard for urban bus engines:

COC_{50} = $3,415
COC_{90} = $5,565
MC_{50} = $16,771 per g/BHP-hr
F = 1.2
Upper Limit = 0.60 g/BHP-hr

Both COC_{50} and COC_{90} are based on engine modifications and front-face burner type trap technology. The upper limit was set at 0.60 g/BHP-hr because, currently, that is the PM standard which bus engines in this category must meet.

2. 1991 Particulate Matter Standard for Petroleum-fueled HDDEs Other Than Urban Bus Engines

EPA proposes that the following values (in 1989 dollars) be used in the NCP formula for the 1991 0.25 g/BHP-hr HDDE PM standard for the three HDDE subclasses:

	LHDDE	MHDDE	HHDDE
COC_{50} =	$1,480	$905	$930
COC_{90} =	1,513	2,169	1,630
MC_{50} =	5,833 per g/BHP-hr	7,083 per g/BHP-hr	22,500 per g/BHP-hr
F =	1.2	1.2	1.2

For LHDDE and MHHDE values, COC_{50} is based on non-trap engine modifications while COC_{90} is based on a front-face burner type trap technology. For HHDDE values, both COC_{50} and COC_{90} are based on non-trap engine modifications.

3. 1991 Petroleum-fueled Heavy-duty Diesel NOx Standard

EPA proposes that the following values (in 1989 dollars) be used in the NCP formula for the 1991 5.0 g/BHP-hr HDDE NOx standard for the three HDDE subclasses:

	LHDDE	MHDDE	HHDDE
COC_{50} =	$830	$905	$930
COC_{90} =	946	1,453	1,590
MC_{50} =	1,167 per g/BHP-hr	1,417 per g/BHP-hr	2,250 per g/BHP-hr
F =	1.2	1.2	1.2

For all categories, COC_{50} is based on engine modifications while COC_{90} is based on a fuel economy penalty resulting from timing changes as well as engine modifications.

4. 1991 Petroleum-Fueled Heavy Light-Duty Diesel Trucks (HLDDTs) Portion of the Light-Duty Diesel Truck-2 Particulate Matter Standard

EPA proposes that the following values (in 1989 dollars) be used in the NCP formulas for the heavy light-duty diesel truck (HLDDT, or light duty-trucks in excess of 6000 pounds GVWR) portion of the LDDT2 PM standard of 0.13 grams per mile:

COC_{50} = $711
COC_{90} = $1,396
MC_{50} = $2,960 per gram/mile
F = 1.2

Both COC_{50} and COC_{90} are based on a front-face burner trap technology.

IV. Averaging/Credit Use Issues

A. Summary

In the Phase II NCP rule (50 FR 53463, December 31, 1985), EPA deferred until the Phase III rulemaking the issue of whether and how to combine the NCP program with the emissions averaging program. EPA decided, when it initiated the Phase III rulemaking, to obtain public comment early in the process concerning implementation issues. A public workshop (52 FR 9503, March 25, 1987) was held in Ann Arbor, Michigan, on May 4, 1987, at which EPA discussed the issues associated with combining the NCP program with the averaging program and presented a wide range of implementation alternatives. Some of those alternatives were considered to be unacceptable due to stringency and legal concerns. EPA received written comments from five parties: The Engine Manufacturers Association (EMA), Ford Motor Company (Ford), Chrysler Motors (Chrysler), Mack Trucks, Inc. (Mack), and the Manufacturers of Emission Controls Association (MECA). In addition, EPA received verbal comment from Mercedes-Benz (Mercedes). In general, the comments received were almost as diverse as the range of alternatives that EPA presented.

Since the workshop, EPA has proposed a banking and trading program for all HDEs (54 FR 22652, May 25, 1989). An extension of the averaging program, banking allows a manufacturer to bank emission credits earned from an engine class for one model year and use these credits in later model years. Trading allows manufacturers to sell credits to other manufacturers for use within the same class of engines. Issues dealing with the interrelationship of banking and trading with NCPs are discussed in the banking and trading proposal.

B. Issues as Presented at Workshop

The most fundamental question is whether to allow NCPs to be used simultaneously with emission credits from averaging, that is, whether to allow a manufacturer to pay NCPs for engines included in an averaging set. If the answer to this question is no, then the recommended course of action should be to maintain separate programs. If the answer is yes, then other questions relating to how NCPs and averaging should be combined must be addressed.

If it is desirable that NCPs and averaging be used simultaneously, the second basic question becomes to what engine families NCPs can be applied: (1) Only the engine family or families in the averaging set that failed to meet a standard for which NCPs are available, or (2) all the families in the averaging set, if the set fails to meet the standard on average (in which case the NCP would be calculated on the basis of the manufacturer's production-weighted average).

There are questions regarding the legality and workability of the second approach. A threshold issue is whether the Clean Air Act authorizes use of NCPs in that manner. Section 206(g) of the Act makes NCPs available for engines that fail to meet a standard. However, the second approach would entail payment of NCPs for engines that

meet the standard but are included in averaging sets that do not achieve the standard overall. A related issue is posed by the statutory requirement that the amount of the per engine penalty depends on the engine's degree of noncompliance. In the case of an averaging set, the engines that met (or exceeded) the standard would provide no statutory basis for a penalty assessment, whereas the engines that fell short of the standard would have their degree of noncompliance reduced by virtue of being averaged with complying enigines. Fulfilling the statutory penalty-setting requirement that complying manufacturers not be disadvantaged would also be problematic, since the manufacturers' ability to make use of averaging and thereby reduce costs, will vary with the makeup of their fleets.

In addition, applying NCPs to a manufacturer's production-weighted average means that the NCPs would be applied retroactively at the end of the production year, which may be contrary to the intent of the Act. NCPs would cease to be a temporary alternative to stopping production for manufacturers that are having difficulty achieving compliance with the standards, and would arguably become a remedy for noncompliance of in-use vehicles. Finally, if NCPs were applied to a manufacturer's production-weighted average, the manufacturer would cease to be held accountable for ensuring that his production-weighted average meets the applicable emission standard. The environmental effect of such noncompliance must be considered. Further, the civil penalties of up to $10,000 per vehicle authorized by section 205 of the Act would be replaced by payment of a considerably smaller NCP.

The Act requires compliance levels for NCP purposes to be established by emissions testing of production line vehicles, trucks or engines (hereafter referred to collectively as engines). Consequently, Production Compliance Audits (PCAs) would have to be run on all engine families included in the averaging set, thus greatly increasing the enforcement and administrative burden of the averaging program.

The third major issue, assuming that it is desirable that NCP and averaging be used simultaneously, is whether a manufacturer should be allowed to pay an NCP based on a family emission limit (FEL) that is either above or below the emission standard itself. Paying an NCP to an emission level that is below the standard or otherwise different from the standard may be inconsistent with the authorization provided by the Act. Further, it would require that EPA reconsider, in a new context, issues previously resolved in the Phase I NCP rulemaking. The current regulations make no provision for calculating penalties at emission levels below the standard. Paying an NCP based on the standard alone would eliminate some economic benefit from averaging, since the result in certain situations would be essentially the same as conducting separate programs. For example, NCPs would not be available for an engine family in the event of an SEA failure with respect to an FEL that is below the emission standard. Paying an NCP based on an FEL that is above the emission standard may be a viable alternative, but raises the question of how to deal with an engine family that exceeds an FEL that is below the standard, which causes the production-weighted average to exceed the standard.

The final major issue is how penalties would be calculated for an engine family under averaging. The current NCP rate structure is based on the marginal costs of bringing emissions of an NCP subclass (defined at 40 CFR 86.1102–87) from the upper limit down to the emission standard and the measured production-line compliance level with respect to the emission standard. The current NCP regulations make no provision for changing the definition of the standard (i.e., substituting an FEL for an emission standard), or defining the marginal costs of compliance of a subclass with respect to an emission level other than the emission standard, or paying an NCP to an emission level other than the emission standard. Defining marginal costs of compliance with below-standard FELs would be especially problematic, involving as it would different FELs for different manufacturers and presumably confidential business information on control strategies.

C. Discussion of Averaging Issues

EPA presented at the workshop three options for integrating the NCP and averaging programs (i.e., Separate and Exclusive Programs, Allowing payment of NCPs for exceeding FELs, and Allowing payment of NCPs for exceeding the end of year average standard). During the workshop, EPA discussed several alternative ways of implementing each of these options. The following section reviews the options and discusses the comments EPA received from the workshop participants. The discussion begins with the option EPA considers most consistent with the Clean Air Act, but which imposes the most restrictions on the manufacturers' use of averaging and then discusses other options in order of restrictions on manufacturers' use of averaging.

1. Separate and Exclusive Programs

The three alternatives for separate and exclusive programs were presented as follows:

(a) Exclude from averaging subclasses for which NCPs are available (subclass is defined at 40 CFR 86.1102–87).

(b) Exclude from averaging subclasses for which a manufacturer has elected to pay an NCP on any engine in that subclass.

(c) Exclude from averaging any engine family for which an NCP is elected.

EPA considered the option of separate and exclusive programs because it avoided the possible legal issues involved in incorporating the averaging program into the NCP program and because it was less difficult to implement and enforce. However, after analyzing the first two alternatives, EPA concluded that they are unjustifiably inflexible. Alternative (a) would effectively prohibit averaging fleetwide, since NCPs are being proposed for all standards for which averaging is also available. Alternative (b) would prohibit averaging in a number of cases, depending on the extent to which NCPs are elected. This alternative would preclude an engine family from averaging even though an NCP is not paid on that engine family. Of the parties commenting, only MECA specifically expressed support for one of these alternatives, and MECA did not give a reason for preferring alternative (a) to (b) or (c). EPA believes that alternative (c) is consistent with the Clean Air Act, enforceable and does not unduly restrict averaging. Therefore, EPA will limit further consideration of separate NCP and averaging programs to Alternative (c), which is engine family based.

EPA stated in the workshop that there could be a legal concern with this alternative. EPA arguably cannot deny NCPs if conditions are met for offering NCPs. Section 206(g) of the Act states that "a certificate of conformity shall be issued * * * and shall not be suspended or revoked * * * for such vehicles or engines manufactured by a manufacturer notwithstanding the failure of such vehicles or engines to meet such standards if such manufacturer pays a nonconformance penalty * * *." The potential problem would occur when a manufacturer certifies an otherwise noncomplying engine family under averaging and later decides to pay an NCP (e.g., as a result

of an SEA failure); averaging and NCP would apply to the same engine family, which would be inconsistent with the constraints of this alternative as presented at the workshop. Were this alternative to be adopted, EPA suggested that manufacturers might have to waive their rights to NCPs for engine families that they elect to certify under the averaging program.

Mack suggested in its proposed alternative that a manufacturer have the flexibility to apply fractions of an engine's production between the averaging program and the NCP program. Thus, if actual sales or emission levels are greater than the manufacturer's projected sales or emission levels for a particular engine family, the manufacturer would be able to remove all or a portion of that engine family's production from the averaging set, conduct a PCA and begin to pay an NCP on those engines removed from the averaging set.

This concept would work as follows: Prior to production of a model year, the manufacturer's projected "weighted-average compliance level" (ACL) would be computer as:

$$ACL = \frac{\sum_{i=1}^{n} (N_i \times FEL \times HP_i)}{\sum_{i=1}^{n} (N_i \times HP_i)}$$

Where:
i = engine family description,
n = number of engine families in the averaging set,
FEL = Family Emission Limit for engine family i as established by the manufacturer during certification,
HP_i = horsepower associated with the engine family i,
N_i = number of vehicles in engine family i (N_i is projected at the beginning of a model year and is later revised to reflect actual production).

Note: The above equation is valid under the current averaging program. Under the expanded averaging program contained in the banking and trading NPRM the equation would change but the principle, as described here, would remain the same.

If the projected ACL is less than or equal to the averaging standard, then no further action is necessary. If, however, the projected ACL is greater than the averaging standard, the manufacturer would begin to remove the higher FEL vehicles or engine families from the averaging set until the recomputed ACL becomes less than or equal to the averaging standard. The manufacturer would conduct a PCA(s) when production begins and pay NCPs for those vehicles removed from the averaging set.

The approach would be the same if during the model year the projected ACL became greater than the averaging standard due to a shift in production for an engine family as a result of a shift in market demand or due to a necessary increase in an FEL as a result of higher than expected assembly-line emission levels. The manufacturer would begin to remove the higher FEL vehicles or engine families from the averaging set for future production (retroactivity will be discussed in section E of this notice as a separate issue) until the recomputed ACL for the model year production became less than or equal to the averaging standard. The manufacturer would conduct a PCA(s) and begin to pay NCPs for those future production vehicles removed from the averaging set.

EPA endorses Mack's alternative except that EPA opposes any plan that would allow subdivision of an engine family because such a plan would be significantly more difficult to enforce. Instead, EPA proposes that when a manufacturer wishes to adjust its ACL during the model year by removing future production of a group of engines from the averaging program and paying an NCP for those engines instead, a manufacturer must certify a new engine family which would consist of the engines for which NCPs are paid. Likewise, if a manufacturer wishes to switch future production of a group of mechanically identical engines from the NCP program to the averaging program, that manufacturer must certify a new engine family which would consist of those engines produced under the averaging program. This is consistent with the requirements of the current averaging program regarding mid-year changes (the manufacturer must establish a new engine family for that future production and submit the appropriate certification application and emission data). Under this approach, a manufacturer would need to establish at most two engine families (one NCP family and one averaging family) for a group of mechanically identical engines. During the model year the manufacturer could adjust the ACL by switching production between these two engine families. Naturally, if a manufacturer were simply resuming production of an engine family, which the manufacturer already had a valid certificate, there would be no need to create a new engine family.

Requiring separate engine families would preserve the enforceability of emission standards in-use, as provided by the Act. Every manufacturer is liable for the failure of its engines to comply with the emission levels it was certified to meet during its useful life. An engine family which uses an NCP must meet the emission level on which its penalty is based (the compliance level), while a family which uses averaging must meet the FEL set by the manufacturer at any level below the upper limit and other than the emission standard promulgated by EPA. Since a single engine family cannot be required to meet differing emission levels, the averaging and NCP programs would mutually exclude each other. But this exclusivity would not prevent a manufacturer from certifying two mechanically identical engine families, an NCP family which is certified at its compliance level and an averaging family whose FEL is greater than or equal to the NCP family's compliance level. A manufacturer would then allocate production throughout the year in such a way as to maintain the proper ACL and minimize its NCP payments.

EPA is proposing this alternative because it offers manufacturers an opportunity to take advantage of the flexibility of the averaging program with a minimum increase in the certification burden over the current program. This proposal also maintains the incentives provided by NCPs to develop the emission control technologies necessary to comply with emission standards as quickly as possible. The NCP penalty rate accounts for the degree of noncompliance and is set at a level which EPA believes is at least as expensive as the cost of manufacturing vehicles which comply with emission standards. The Act requires that the NCP not put a complying manufacturer at a competitive disadvantage. In addition, the NCP rate increases with each year of availability (yearly inflation factor) and with the extent of use in the vehicle subclass by all manufacturers (yearly usage factor). Consequently, paying an NCP should not be economically beneficial except where the alternative is stopping production of the noncomplying engine. Thus, EPA presumes that paying NCPs would not be a preferred option and that NCPs would be used only as a last resort to achieve compliance with the applicable emission requirements.

The NCP program, including administration, enforcement and the NCP formula, would not change from the current program because NCPs would be used independently of averaging. The current arrangement in which, by default, the NCP and averaging programs are separate and exclusive, would not be changed. Any vehicles of

an engine family could not be included in an averaging set if the manufacturer is paying an NCP for any pollutant on any vehicle of that same engine family.

In their comments at the workshop, Chrysler and MECA indicated support for separate NCP and averaging programs. EPA believes that the proposal will satisfy their concerns, even though MECA prefers alternative (a), which would prohibit including in the averaging set subclasses for which NCPs are available. Mack proposed, and Mercedes indicated support for, the type of program EPA is proposing here. The EMA was silent on the issue. Ford supported a combined program that permits maximum flexibility. EPA believes, however, that the proposed program is as flexible as and less burdensome than a combined program (the alternative to be discussed in the next section) in which NCPs would be permitted along with averaging for each engine family. In addition, EPA has legal concerns with a combined program.

Ford objected to the premise that manufacturers may have to waive use of NCPs for subclasses or engine families for which averaging is elected in order to preserve the integrity of the separate and exclusive program options. Ford desired an approach that permits complementary utilization of NCPs and averaging and that does not restrict the averaging program by conditioning manufacturers' participation on voluntary waiver of their NCP rights under the Act. EPA believes its proposed program offers the flexibility sought by Ford, but removes the legal concerns that gave rise to the Agency's suggestion that a waiver of NCPs might be necessary.

2. NCPs For FELs

The five alternatives that EPA presented at the workshop for integrating NCPs with FELs consist of variations of one primary alternative—to allow NCPs to be used for an engine family included in an averaging set such that NCPs are paid for the difference between the engine family's FEL as declared under averaging and its compliance level as measured during a PCA. The five variations of this alternative derive from options for addressing two independent issues related to the timing of NCP availability and whether NCPs should be offered for FELs below the emission standard. The following discussion will be limited to addressing the primary alternative of allowing NCPs to be used for an engine family included in an averaging set.

Prior to the start of production for a model year, a manufacturer would calculate its projected weighted average compliance level (ACL) in the same way as discussed earlier in this proposal.

$$ACL = \frac{\sum_{i=1}^{n}(N_i \times FEL \times HP_i)}{\sum_{i=1}^{n}(N_i \times HP_i)}$$

No further action would be necessary if the projected ACL is less than or equal to the averaging standard. If, however, the projected ACL is greater than the averaging standard, the manufacturer would redesignate a lower FEL for one or more engine families until the recomputed ACL would be less than or equal to the averaging standard. The redesignated lower FELs would allow compliance with the averaging standard. However, the actual engine family emissions levels would exceed the lowered FELs, so the manufacturer would be forced to pay an NCP. For each engine family impacted by a redesignated lower FEL, the manufacturer would certify the engine family under averaging to the lower FEL and at the same time request a PCA to pay an NCP for the amount that the actual compliance level exceeds the FEL.

If a manufacturer can achieve compliance with averaging alone, there is no practical difference between this alternative and the proposed plan. If, however, the projected ACL is greater than the averaging standard, this plan may be more flexibile in one respect. Rather than removing engines with a high compliance level from the averaging set and paying a separate NCP, as would be required by the proposed plan, the manufacturer could leave that engine family in the averaging set and pay an NCP for those same vehicles. However, a new engine family would have to be certified for every change of the FEL.

Allowing an NCP to be paid for non-compliance with an FEL may be at odds with section 206(g) of the Act, which provides that NCPs be made available to engines which fail to meet standards promulgated under section 202 and that NCPs "take into account the extent to which actual emissions of any air pollutant exceed allowable emissions under the standards promulgated under section 202." Morever, the legislative history refers to NCPs being applicable to "revised standards" prescribed by the Administrator. It states in footnote 18 (H.R. Rep. No. 294, 95th Congress, 1st Sess. 275–76 (1977) that "the Committee intends to make clear that revised standards are to be based on the emission control capability of the best technology projected to be available for production."

EPA did not prescribe specific FELs under section 202, and does not consider FELs to be revised emissions standards promulgated under section 202. Further, FELs are not set by EPA based on emission controls projected to be available for production, but are established by manufacturers voluntarily participating in the averaging program. In the preamble to the averaging final rule (51 FR 10606, March 15, 1985), EPA stated "a manufacturer will establish * * * an emission limit (as distinguished from an emission standard) against which the emissions of each of the engine family would be compared." EPA expressly declared that FELs, as used in the averaging program, are not emissions standards.

Support for allowing NCPs to be paid for failing FELs came primarily from Ford, which indicated that manufacturers should have as much flexibility as possible "so that manufacturers can utilize options most favorable to their specific situations while simultaneously achieving clean air objectives." Ford also stated that it "believes that EPA has authority under the Clean Air Act to promulgate such a program" and that such a program "should have negligible or zero effect on air quality." Ford argued that the DC Circuit Court of Appeals in *NRDC* v. *Thomas* (805 F.2d 410, 1986) "held that there was nothing in either the statutory language or legislative history of the Act that would prohibit coexistence of averaging and NCP programs" and that "NCPs would continue to serve an important 'safety net' role for manufacturers whose entire fleet would not comply with emission standards, even after invoking the averaging program." Ford also indicated that the NCP and averaging programs "are neither mutually exclusive nor duplicative in purpose or effect."

EPA agrees that the Act permits some combination of averaging and NCP programs. However, Ford has not addressed the Agency's point that the statute makes NCPs available only for failing section 202 standards, not manufacturer-set FELs. EPA believes that its proposed program is more consistent with the Clean Air Act, because it combines NCPs and averaging by permitting payment of NCPs for engines which exceed the standard (as opposed to the FEL) as needed to bring the averaging set into compliance with the standard.

MECA opposed a combined NCP and averaging program because it would:

* * * create an incredibly complex compliance program that will be difficult, if not impossible, to implement and enforce effectively, and that will significantly drain limited EPA staff and financial resources that could and should be used more productively to insure that other provisions of title II are effectively enforced. In addition [it] could undermine the objectives Congress sought in creating the NCP program * * * Congress sought to balance the need to permit the technological laggards to remain in the marketplace while developing technologies to achieve technology-forcing standards, and at the same time to insure that the necessary incentives remained to develop those technologies as quickly as possible. Phase I and Phase II of the NCP program, which have been implemented by EPA, were the result of a long and arduous cooperative industry/government effort to develop a program that would achieve the balance sought by Congress. Introducing averaging to the NCP process could destroy [that] delicate balance * * *.

EPA believes that the proposed program addresses MECA's concerns. The proposed program separates NCPs from averaging on an engine family basis. As in the current program, each engine family would be certified to an FEL upon which compliance would be determined. The proposed program would be implemented in the same manner that the averaging and NCP programs are currently implemented and no new enforcement programs would be required. NCPs would continue to be paid on a per engine basis and the NCP penalty rate would be computed using the same methodology as was used in Phase I and Phase II of the NCP rule. Thus, the proposed program should be relatively straightforward to implement and should preserve the balance struck by the NCP Phase I rule.

Chrysler opposed a combined NCP and averaging program. It stated that it has been opposed to the averaging program, and that the NCP and averaging programs "should remain separate since there have been serious legal questions regarding the averaging program. It is our opinion that the time consuming development of a complicated combination program * * * will delay the issuance of an NPRM and expend EPA resources that can be spent on more meaningful programs." In response, EPA notes that the D.C. Circuit upheld the HDE averaging program as promulgated in 1985. EPA shares, however, the concern regarding the expenditure of EPA resources.

Mack noted that any program be consistent with the intent and language of section 206(g) of the Act, and suggested the alternative upon which the proposal is based.

3. NCPs for an Averaging Set Which Fails to Meet the Standard at Year's End

The two alternatives were presented at the workshop for allowing payment of NCPs in the event the averaging set fails to meet the standard at the end of the model year. These alternatives were:

a. Permit manufacturers to pay NCPs for engines which exceed the FEL during the model year and also allow NCP payment at the end of the model year for exceeding the average standard; and

b. Only allow manufacturers to pay NCPs at the end of the model year for exceeding the averge standard.

The following discussion explains EPA's reasons for rejecting the concept of applying NCPs to the standard at the end of the model year. Since both alternatives permit payment of NCPs for failure to meet the standard at the end of the model year, the two alternatives will be addressed together.

In the event an end-of-year ACL exceeded the standard, an end-of-year NCP would in practice take the place of the civil penalty for which the noncomplying manufacturer would otherwise be liable under section 205 of the Act. The NCP would most likely be significantly less than the maximum penalty of $10,000 per vehicle available under section 205. EPA believes that an end-of-year NCP is not necessary to achieve "flexibility", may be contrary to the intent of section 206(g) of the Act, could cause total fleet emissions to increase, and may not be practical.

An end-of-year NCP is not necessary to achieve compliance with the applicable standard. Under the proposal, a manufacturer would need only to track its production during the year to determine its progress. If the projected ACL indicates that the averaging standard may be exceeded if current trends continue, the manufacturer could adjust its production mix between the averaging and the NCP versions of its vehicles.

EPA rejects the argument that an end-of-year NCP might be necessary in the event of some unforeseen circumstance adversely impacting the ACL. The proposal provides all the necessary flexibility for a manufacturer to track and adjust its usage of averaging and NCPs with minimal burden. An end-of-year NCP would be needed only in situations created by inadequate tracking and control over production.

In addition, an end-of-year NCP appears to be at odds with the intent and language of the Act. Two points are relevant to this discussion. First is the issue of retroactivity. The only practical purpose of an end-of-year NCP is to allow a manufacturer to avoid a section 205 civil penalty for not meeting the averaging standard, or avoiding a recall after production ends. Congress did not intend and EPA is not authorized to provide NCPs as a remedy for an in-use nonconformity or to replace the section 205 civil penalty. (See section V. of this notice for discussion of NCP retroactivity.)

In addition, NCPs were designed as an incentive to achieve compliance. The legislative history of section 206(g) (H.R. Rep. No. 294, 95th Congress, 1st Session, 275, 276 (1977)) characterizes the NCP program as a relief mechanism to enable the technological laggard to remain in the market while attempting to meet emission standards. It further states that "[t]he committee does not intend to encourage noncompliance with the standards." The language of section 206(g) itself requires that the NCP program provide incentive over time for the technological laggard to develop vehicles which achieve the required degree of emission reduction.

End-of-year NCPs would diminish the incentive to comply with the applicable standard. The NCP would likely be significantly less than the section 205 penalty of up to $10,000 for each vehicle. (Otherwise, there would be little advantage in paying the NCP.) This reduced liability for nonconformance would decrease the manfacturers' incentive to comply with the standard.

Furthermore, the concept of applying an NCP to an averaging set as a whole presents practical problems of specifying the penalty rate. Currently, the penalty rate is based on the projected per vehicle manufacturer and owner costs in meeting the emission standard and the extent of nonconformance determined by conducting a PCA to measure emissions from production vehicles. A penalty rate is specified for each emission standard and each vehicle subclass for which an NCP has been made available. Emission standards and useful lives may be different for the same pollutant across vehicle subclasses, and the associated costs of conformance with an emission standard may be substantially different across vehicle subclasses. If an NCP were made available for the failure to meet a standard on average, the applicable costs of conforming to the standard would depend on the ratio of vehicles from each subclass included in the averaging set, and would vary among the manufacturers. Details on how this matter might be considered have not been proposed and would

likely add an unnecessary degree of complication to the NCP regulations.

Offering an NCP for failure to meet a standard on the average also presents practical problems with implementing the program. PCA testing may have to be conducted on the entire averaging set. Not only would this be extremely burdensome but it would be impossible once production ceases for any engine family in the averaging set. Consequently, all PCA testing would have to be conducted prior to the end of production, and thus, prior to the final calculation of the production-weighted average (ACL).

Ford commented that a manufacturer should have the option of paying NCPs on individual engine families or on the production-weighted average of all engine families involved in the averaging program. It argued that the same incentive to comply with the emission standard for an individual engine family would also exist for the production-weighted average, and that EPA could establish upper limits for which the production-weighted average would not be permitted to exceed.

Ford also contended that to be equitable and consistent with the averaging program, penalties based on engine family emission levels above the FEL should not be assessed, or should be refunded, if the year-end production-weighted average is at or below the standard.

Ford suggested a possible solution to the practical problem of PCA burden and some of the legal issues associated with retroactivity. NCPs could be assessed quarterly, but only on those engine families exceeding the FEL. The NCP could be adjusted at the end of the year to some value above or below the penalties collected based on the year-end production-weighted average. In this way, PCAs would be run on those engine families exceeding their FELs, and NCPs would be collected on a timely basis.

Ford's suggested solution still poses the legal issues regarding payment of NCPs for failure to meet FELs instead of standards and the NCP payment replacing the section 205 penalty for end of year noncompliance. It also does not solve the practical problems, and it creates additional problems. For example, it does not address the situation in which every engine family meets its respective FEL but, because high emitting engines are produced in greater numbers (or low emitters are produced in lesser numbers) than expected, the applicable standard is exceeded. This constitutes a serious problem since the Ford program only considers conducting PCAs on engine families that are exceeding the FEL, but in the situation described above a manufacturer could exceed the applicable emission standard and none of the engine families would have exceeded their FEL. In that situation, a PCA would not have been conducted and could not be conducted after the violation of the applicable emission standard was discovered because the engine families in question are no longer in production. Thus, EPA would not have conducted the statutorily required production line tests on which NCP amounts are to be based.

Ford suggested that all engine families involved in a manufacturer's averaging program be included in the year-end production-weighted average. However, such a "super" averaging set would effectively undo the limitations EPA placed on the averaging program to address equity, environmental, geographical, and useful life concerns. Ford's suggestion also ignores the legal concern that certain conditions be met before NCPs are made available (e.g., a technological laggard may not exist for all vehicle subclasses within an averaging set).

Ford's suggested solution does not specify or suggest how the final NCP accounting should be made. It also does not address the labeling issue. Currently, all vehicles in the averaging or NCP programs have the FEL or CL printed on the emission label. The FEL or CL on the emission label is used in compliance determinations. If the FEL or CL is revised at the end of the model year because NCPs are assessed for exceeding an FEL, or are refunded if the year-end average is below the standard, the vehicle emissions labels would not reflect the final compliance status of those engine families (presumably, compliance with the standard as part of an averaging set). For example, if NCPs were assessed on an engine family at the end of the model year for exceeding an FEL, the compliance level based on PCA testing would be higher than the FEL indicated on the emission label. If the FEL indicated on the emission label were then used to make an in-use compliance determination, EPA could erroneously determine that these engines are in noncompliance.

V. Retroactivity of NCPs

Allowing NCPs to be paid retroactively (i.e., after an SEA failure or an in-use noncompliance determination) was addressed and rejected in the Phase I negotiated rulemaking, but was again raised as an issue by some manufacturers during the workshop and in the comments submitted to EPA in response to the workshop. These manufacturers advocated that NCPs be applied retroactively to the production of an engine family which has failed an SEA. They also requested that payments replace field fixes as a remedy in the event of an in-use noncompliance determination pursuant to section 207(c) of the Act.

The manufacturers made two points in support of their requests. Any manufacturer that attemps to comply with the emissions standards, but fails an SEA, might be put at a disadvantage with respect to a competitor that decides not to comply and certifies by paying an NCP. The first manufacturer would have expended effort and resources in attempting to comply with a stringent emission standard, and after an SEA failure, would be required by a noncompliance determination under section 207(c) to expend additional effort and resources. In addition, the manufacturers argued that they could have difficulty complying with a recall order if the manufacturer has already designed and built its vehicles to the limit of its capability to reduce emissions. The second manufacturer would have expended neither the effort nor the resources to comply with the stringent emission standard and may have less risk of in-use noncompliance. This is especially true if additional or more sophisticated hardware is required to achieve the stringent emission standard and durability has not been proven. While the NCP rate may remove the competitive disadvantage for complying manufacturers, it may also, for some manufacturers, reduce the incentive to comply with the emission requirements.

Two manufacturers believed engines within a class would be treated inequitably if retroactive NCPs were not available. To illustrate, if an engine family fails an SEA, the manufacturer could begin to pay an NCP for future production. However, the manufacturer is required to develop a fix for the past production.

In the NCP Phase I final rule, EPA rejected offering NCPs as a remedy for in-use nonconformance because the statute only makes NCPs available for problems with obtaining or retaining certificates of conformity. Section 206(g)(1) states that "a certificate of conformity * * * shall not be suspended or revoked" if a manufacturer pays NCPs. Similarly, the legislative history of section 206(g) describes NCPs as a means of avoiding denial, suspension, or revocation of a certificate of conformity. (See H.R. Rep. No. 294, 95th Congress, 1st Session. 275–76 (1977) (Conference Report).) Obtaining a certificate that an

engine conforms to emission standards is a prerequisite to putting the engine into the stream of commerce (see section 203(a)(1)) and is normally not affected by in-use problems. (Where in-use problems are discovered while an engine family, or that part of an engine family in question, is still being produced, the certificate may be revoked for future production but not for past production unless the original certificate was obtained through fraud). In addition, the D.C. Circuit held in *Center for Auto Safety* v. *Ruckelshaus*, 747 F.2d 1, (1984), that Congress intended in-use noncompliance to be remedied by recall and repair of malfunctioning vehicles/engines. EPA, therefore, concluded that there is no authority under section 206(g) to offer NCPs as a remedy for in-use engines. For similar reasons, EPA did not provide NCPs for non-complying engines produced prior to an SEA failure.

While the Agency understands the manufacturers' concerns, it is not clear how retroactive NCPs can be made consistent with the Act. In addition, the current arguments are not different from those EPA rejected in the Phase I (50 FR 35374, August 31, 1985) and Phase II (50 FR 53465, December 31, 1985) rulemakings. EPA continues to believe that NCPs are not authorized by the statute for use as a remedy for in-use noncompliance.

VI. Other Issues

A. Usage Factor (FRAC)

Another issue that needs to be addressed is clarification of the NCP usage factor, which has the effect of increasing the NCP payment each year depending on the extent of NCP usage the previous year. The purpose of this factor is to provide an incentive for conformance. The usage factor is defined in 40 CFR 86.1113–87(a)(4) as:

$frac_{i-1}$ = Fraction of engines or vehicles using NCPs in previous year ($year_{i-1}$).

This calculation was intended to be a simple matter of dividing the number of vehicles, industrywide, of a subclass using NCPs in the previous year by the total number of vehicles of that subclass produced the previous year. However, when EPA began to calculate this factor for the light HDGE subclass for the 1988 model year, an issue arose as to how to treat the 1987 model year HDEs that are optionally certified as light-duty trucks (LDTs) in accordance with 40 CFR 86.085–1(b). Similarly, the question arose as to how to treat light HDGEs that are optionally certified as heavy HDGEs under the five percent allowance provision of 40 CFR 86.087–10(a)(3)(i).

The Agency initially decided that optionally certified vehicles should be included in the subclass in which they were certified. In response to EPA's request for 1987 model year production and NCP usage data from HDGE manufacturers, Ford and GM indicated that the Agency's approach was inconsistent with a prior Agency interpretation of the five percent allowance provision specified in 40 CFR 86.087–10(a)(3)(i).

GM further claimed that in the NCP provisions, the definition of subclass in 40 CFR 86.1102–87(b), which is referenced by the definition of the NCP usage factor, is based largely on the GVWR (e.g., 8,501–14,000 pounds GVWR for light HDGEs), and not on the subclass chosen for certification purposes.

The two possible approaches to counting optionally certified engines toward the total production of a subclass are as follows:

1. EPA initial interpretation (Option A): Count an optionally certified engine toward production of the subclass in which it was certified (certified subclass).

In this case, a LHDGE optionally certified as a LDT would count toward production in the LDT subclass and each LHDGE optionally certified as a HHDGE would count toward the production of the HHDGE subclass.

2. GM and Ford interpretation (Option B): Count an optionally certified engine toward production of the subclass in which it was intended to be used based on GVWR (base subclass).

In this case, a LHDGE optionally certified as a LDT or HHDGE would count toward production in the LHDGE subclass.

At the time this issue arose, the Agency determined that the NCP regulations did not address this issue. EPA also believed that manufacturers may have based NCP decisions on their assumption that EPA policy regarding the treatment of optionally certified vehicles for the FRAC would be similar to that for the five percent allowance specified in 40 CFR 86.087–10(a)(3)(i). Thus, EPA decided to temporarily agree to the GM and Ford interpretation (option B), but to address this issue without prejudice and obtain public comment in the NCP Phase III rulemaking.

In deciding which approach to adopt, one aspect to consider is whether the intent of the five percent allowance provision is similar to that of the NCP usage factor and so determine whether the approaches used should also be similar. As previously stated, the intent of the NCP usage factor is to provide an increasing economic incentive to comply with the emission standards as NCP usage increases. On the other hand, the intent of the five percent allowance provision for light HDGEs is to allow certification to the less stringent emission standards of the heavy HDGEs in the limited situations where it may be technically too difficult to certify to the more stringent standards, which typically would require catalyst control. In other words, it is designed to provide relief for certification of up to five percent of the light HDGE applications (i.e., HDGEs in the 8,501–14,000 pounds GVWR). It is apparent that the intent of these two provisions are dissimilar.

Another aspect to consider is the impact on the NCP usage factor, and thus the penalty rate, of the different interpretations. As stated earlier, the industrywide production of a subclass is the denominator of the NCP usage factor for the subclass, and that portion of production of the subclass which uses NCPs is the numerator. If the NCP usage within a subclass remains the same, the usage factor, and thus the NCP penalty rate, is inversely proportional to the total production of the subclass.

Again, under option A, optionally certified engines would be counted as production in the certified subclass. For light HDGEs and light HDDEs, some production would be counted as LDTs (for those engines certified as LDTs under 40 CFR 86.085–1(b)), and for light HDGEs only, some production would be counted as heavy HDGEs (for those engines certified under the five percent allowance provision of 40 CFR 86.087–10(a)(3)(i)).

The effect of this split, assuming NCP usage within each subclass remains the same, is a decrease in the usage factor for the optionally certified subclasses (i.e., the LDT subclass and the heavy HDGE subclass) due to a larger production baseline. Similarly, the usage factor would increase for the base subclasses (i.e., the light HDGE and light HDDE subclasses) due to a smaller production baseline.

For example, in the 1987 model year for CO, NCPs were used for 74,295 of the 312,912 total industry production of light HDGEs. If option B were used to calculate the NCP usage factor for the 1988 model year production of HDGEs, the usage factor would be:

$$74{,}295/312{,}912 = 0.24$$

However, 137,229 were certified as LDTs and 8,330 were certified as heavy HDGEs under the five percent allowance. Under option A, the NCP usage factor to be applied in the 1988 model year production of HDGEs would be:

$$74{,}295/(312{,}912 - 137{,}229 - 8{,}330) = 0.44$$

Thus, implementation of Option A would have the effect of changing the NCP rate for a vehicle or engine subclass, even if the NCP usage within that subclass remains the same. This effect is consistent with the certification classification of the engines. The production baseline used in the denominator of the NCP usage factor increases or decreases according to the number of production vehicles or engines certified for a particular subclass. As a result, the optional certification of engines by one manufacturer would have the effect of changing the NCP penalty for all manufacturers for both the base subclass and the optionally certified subclass. In addition, if actual NCP usage increases within the optionally certified subclass because of NCP usage by the optionally certified engines, the usage factor for the optionally certified subclass would increase.

These effects are not inequitable. Nor are they inconsistent with the intent of the certification regulations or of the NCP regulations. With respect to the five percent allowance, the certification regulations have a different intent and are not affected by the NCP regulations. In addition, a valid and logical definition of a subclass could include all vehicles and engines that were certified in that subclass, irrespective of the intended use by GVWR.

Option A is also supported by the fact that the engine is subject to all other provisions applicable to that subclass and is a *de facto* member of that subclass.

Under option B, all engines are counted in the subclass in which they were intended to be used, based on the GVWR, irrespective of the subclass in which they were certified. The NCP usage factor is not changed by optional certification (e.g., in the previous example, the 1988 usage factor for CO HDGEs would be 0.24). Implementation of option B is consistent with the current definition of subclass at 40 CFR 86.1102.87(b) and the Agency's guidance on of the five percent allowance provision in 40 CFR 86.087–10(a)(3)(i) with respect to calculating the number of vehicles/engines which may be reclassified under the five percent rule. Since implementation of this option would not affect the NCP rate for a vehicle or engine subclass, the optional certification of engines by one manufacturer would not affect the NCP penalty for other manufacturers.

An inconsistency does arise, however, with option B. A situation could arise in which NCPs are paid in one subclass for production which is counted in another subclass for the NCP yearly usage factor. For example, consider the diesel particulate standards of the 1991 model year. A manufacturer may certify a HDDE in the 8,501–10,000 pound GVWR range as a diesel LDT (LDDT) and pay an NCP for that engine at the rate specified for the 0.13 LDDT particulate standard. That engine would be certified, tested, and have an NCP paid under Subparts B and L for the LDDT subclass, but be counted toward total production (denominator of the NCP usage factor) for the light HDDE subclass for the purpose of calculating the 1992 NCP usage factor.

In addition, as with the example above, it is not clear in this example whether the NCP usage for the optionally certified engine should be counted toward NCP usage (numerator of the NCP usage factor) for the LDDT subclass of the light HDDE subclass.

If the optionally certified engine is to be counted toward the NCP usage in the LDDT subclass, it would consistently be counted toward the subclass in which it was certified and in which the NCP was paid, but it would inconsistently be counted toward the total production of the light HDDE subclass. Under this scenario, if a substantial number of light HDDEs were to be optionally certified as LDDTs and were subject to NCP payment, the NCP usage in the LDDT subclass could exceed 100 percent. This would occur because the NCP usage, but not the baseline production, would be significantly increased in the LDDT subclass. In any event, the usage factor under this option would not reflect actual NCP usage within either subclass.

On the other hand, if the optionally certified engine is counted toward the usage in the light HDDE subclass, it would consistently be counted toward the same (base) subclass with respect to total production and NCP usage, but it would have an NCP paid for the LDDT (optionally certified) subclass. This inconsistency is compounded if NCPs are offered in one subclass but not the other. In the future, NCPs could be made available for the optionally certified subclass but not for the base subclass (for example, if a standard were to be made significantly more stringent for LDTs but not for HDEs). In this case, optionally certified engines would have NCPs available, but the NCP usage could not be counted toward any NCP usage factor. NCPs would be unavailable for the base subclass in which the usage would be counted under this option. In any event, the usage factor under this option would not reflect actual NCP usage within either subclass, and in possible future situations, may not reflect some actual NCP usage at all.

Option A has no such inherent inconsistencies, other than with the definition of subclass in 40 CFR 86.1102–87(b) which can easily be clarified by rulemaking. This option also has a logical rationale. It seems appropriate that the NCP usage factor should reflect actual NCP usage and actual total production within the subclass in which the engines or vehicles were certified. Consequently, the Agency is proposing option A, but invites comments to adequately address the inherent inconsistencies of option B.

B. Submission of Production Data for Calculating FRAC

An additional issue that needs to be addressed is the reporting of production data to EPA for use in calculating the FRAC.

In the NCP Phase II final rule, EPA indicated that the FRAC used in calculating the penalty for model year "n" would be based upon actual NCP usage through March 31 of model year n-1 combined with EPA's estimate for the remainder of the model year n-1. However, EPA has encountered two difficulties in calculating the FRAC: (1) In addition to NCP production, EPA needs non-NCP production from all manufacturers producing in a subclass for which NCP's are available; and (2) EPA needs input from manufacturers to estimate NCP and non-NCP production for the remainder of the model year. Consequently, EPA has had to request production data by letter in order to make the FRAC available to industry.

In this rulemaking, EPA is proposing to require that all manufacturers using NCPs report their production by April 30 of each model year. For those manufacturers not using NCPs but producing in a subclass where NCPs are available, EPA is proposing the voluntary reporting of production by April 30 of each model year. Voluntary reporting of production would only be applicable to § 86.1113–87(a)(3)(iv). All applicable production reporting requirements, including §§ 86.085–37 and 86.415–78 would still be mandatory. For those manufacturers who do not submit voluntary reports, EPA proposes to make a production estimate based upon the projected sales for that model year as listed in the manufacturers' applications for certification. EPA requests comments on the use of projected sales or other sources of production information for this purpose.

The mandatory report will include actual NCP and non-NCP production through March 31 of the model year, the manufacturer's estimate of NCP and non-NCP production for the remainder

of the model year, and actual year-end NCP and non-NCP production from the previous model year. The reports would be due in time for the Agency to compile the data received, arrive at the corrected FRAC for the previous model year, as well as the new model year FRAC, and return the information to manufacturers using NCPs in time for their first NCP payment of the next model year.

C. Overpayment of the Penalty

During implementation of the NCP Phase I and II rulemakings, EPA encountered an issue that was not expected: overpayments. During the 1987 model year, one manufacturer discovered that it had made a tracking error on NCP usage. Consequently, the manufacturer determined that NCP usage had in reality been lower than reported, and therefore, it had overpaid. The manufacturer requested a refund of the overpayment, including interest. However, while the Agency may refund an overpayment or the manufacturer may withhold a future payment due as an offset of the overpayment; EPA lacks the legal authority to pay interest on an overpayment. The Agency is proposing the addition of § 86.1113(g)(6) that an NCP overpayment may be refunded, or offset by withholding of a future payment, if approved in advance by the Administrator. However, no interest will be paid by EPA.

D. Rounding of Values Used in NCP Calculations

Another issue that needs to be addressed pertains to rounding of numbers used in the NCP calculation. During the 1987 and 1988 model years, manufacturers needed guidance regarding when to round the various values used in the NCP calculation.

For consistency, the Agency has decided that the adjusted values of COC_{50}, COC_{90}, MC_{50} should be rounded to the nearest whole dollar in accordance with American Society of Testing and Materials rounding procedures contained in (ASTM) E29–67. For all other terms, except the predefined terms CL, S, UL, F, and Ai, unrounded values of at least five figures beyond the decimal point should be used. The Agency believes that the highest accuracy will be reached with the most decimal places. The Agency requests comments on the number of figures to be used in the NCP calculation.

E. Selection of Configuration for PCA Testing

As currently written, § 86.1106–87(2) states that PCA testing must be conducted on the same configuration tested in certification. The Agency is proposing to add the statement, "* * * unless an alternate configuration is approved by the Administrator." The Agency's intent is to allow an alternate engine or vehicle configuration to be chosen for PCA testing, should the need arise. Such a need might be a change in production scheduling which would make the appropriate engine or vehicle configuration unavailable for PCA testing in sufficient numbers.

The Agency is also proposing that, for purposes of PCA testing, the engine or vehicle configuration selected as an alternate to the certification emission data engine or vehicle (as defined in § 86.085–24) be the configuration in production that is expected to have the highest level of emissions of the pollutant(s) for which the NCP is desired. Such a "worst case" requirement for alternate engine or vehicle configuration is consistent with the certification regulations and ensures that the configuration does not underrepresent the engines or vehicles within the family.

F. Interest payments

EPA became aware of two additional NCP payment issues during the implementation of the NCP program. First, there is no specific provision for manufacturers to pay interest resulting from an approved alternate payment schedule (§ 86.1113–87(g)(1)), and second, the interest rate specified in § 86.1115–87(z)(4) for use in calculating payments withheld pending a hearing (§ 86.1113–87(g)(2)) is not consistent with the interest rate published annually under the Debt Collection Act of 1982 for use in assessing interest charges for outstanding debts owed the Government.

Therefore, EPA is proposing to insert paragraph (z) of § 86.1115 under § 86.1113 as paragraph (g)(5) and to revise it to indicate that it applies to interest on delayed payments from both an approved alternate payment schedule (paragraph (g)(1)) and a request for a hearing (paragraph (g)(2)). Further, the interest rate for NCP payments withheld beyond the quarterly due dates would be that rate published annually by the Secretary of the Treasury pursuant to the Debt Collection Act of 1982. The interest rate would be applied to the number of quarterly NCP payment due dates which have elapsed throughout the duration of a hearing request of an alternate payment schedule.

G. Quarterly Reporting Requirements

Additional proposed changes to the NCP rule are that the quarterly report include the interest payment calculation, if applicable, and be submitted even if the manufacturer has no NCP production in a given quarter. By adding these requirements, the Agency can confirm that the interest payments made are accurate and can verify whether an NCP payment was due.

H. Special Labeling Requirement for Model Years 1991 to 1993 Heavy-duty Diesel Engines

EPA is also including in this NPRM a proposed labeling provision to require engine manufacturers to specifically identify heavy-duty diesel engines as to whether or not they are certified to comply with the urban bus diesel engine particulate regulations.

This labeling requirement would apply only during model years 1991–1993 when the urban bus engine particulate standard is more stringent than the standard for other heavy-duty diesel engine applications. EPA has recently had inquiries from transit operators and bus builders that has led the Agency to believe that it would be useful to distinguish, by way of a label, those engines that are certified for urban buses from those engines that are not.

Existing regulations of 40 CFR 86.084–5(a)(2) prohibit heavy-duty vehicle manufacturers from using heavy-duty engines not certified to applicable standards. This labeling requirement will assist urban bus manufacturers by identifying engines which are certified to the urban bus particulate standard during the 1991 to 1993 time period.

This requirement will pose little or no additional cost to the engine manufacturers and should help avoid confusion among engine distributors, truck and bus builders, transit authorities and fleet operators concerning the applications in which a particular engine can be used. EPA anticipates that manufacturers may be able to include or substitute the required language on existing engine labels in many cases.

The labeling language being proposed reflects language that EPA intends to include on heavy-duty diesel engine certificates of conformity that EPA issues during the 1991–1993 model years.

It should be noted that several legislative proposals currently before congress would relax the 1991 urban bus particulate matter standard to 0.25 g/BHP-hr. If such legislation were enacted, this labeling requirement will no longer be needed.

VII. 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, or result in a major price increase. This rule is not a "major" regulation, according to the established criteria. Also, this regulation is intended to assist manufacturers that are having difficulty developing and marketing the vehicles involved. Therefore the Administrator has 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 are in the Public Docket (EN–87–02).

VIII. Economic Impact

Because the use of NCPs is optional, manufacturers have the flexibility and will likely choose whether or not to use NCPs based on their ability to comply with emissions standards. If no HDE manufacturer elects to use NCPs, these manufacturers and the users of their products will not incur any additional costs related to NCPs.

NCPs remedy the potential problem of having a manufacturer forced out of the marketplace due to that manufacturer's inability to immediately conform to new, strict emission standards. Without NCPs, a manufacturer which has difficulty certifying HDEs in conformance with emission standards or whose engines fail an SEA has only two alternatives: fix the nonconforming engines, perhaps at a prohibitive cost, or prevent their introduction into commerce. The availability of NCPs provides manufacturers with a third alternative: Continue production and introduce into commerce upon payment of a penalty an engine that exceeds the standard until an emission conformance technique is developed.

Therefore, NCPs represent a regulatory mechanism that allows affected manufacturers increased flexibility. A decision to use NCPs may be a manufacturer's only way to continue to introduce HDEs into commerce. Hence, NCPs may be considered to have no adverse economic impact.

IX. Environmental Impact

When evaluating the environmental impact of this rule, one must keep in mind that, under the Act, NCPs are a consequence of enacting new, more stringent emissions requirements for heavy duty engines. Emission standards are set at a level that most manufacturers can achieve by the model year in which the standard becomes effective. Following *International Harvester* v. *Ruckelshaus*, 478 F.2d 615 (U.S. Circuit Court, DC District, 1973), Congress realized the dilemma that technology-forcing standards were likely to cause, and allowed manufacturers of heavy-duty engines to certify nonconforming vehicles/engines upon the payment of an NCP. This mechanism would allow manufacturer(s) who cannot meet technology-forcing standards immediately to continue to manufacture these nonconforming engines while they tackle the technological problems associated with meeting new emission standard(s). Thus, as part of the congressional scheme to force technological improvements without driving any manufacturer out of the market, NCPs will not adversely affect the environment.

X. Compliance with Regulatory Flexibility Act

Under section 605 of the Regulatory Flexibility Act, 5 U.S.C. 601, *et seq.*, the Administrator is required to certify that this regulation will not have a significant impact on a significant economic impact on a substantial number of small business entities. None of the affected manufacturers could be classified as small. Even if some were small, there would not be a substantial number of those. Moreover, as already discussed, the NCP program can be expected to benefit manufacturers.

Some small entities do exist as manufacturers' contractors for the testing of engines for PCAs. It is EPA's practice to conduct PCA scheduling (namely, tests per day limitations) in such a way as to consider the staff and manpower capabilities of such contractors and work around any problems. The result is that these entities are not adversely affected. Thus, I certify that this rule will not have any adverse economic impact on a substantial number of small entities.

XI. Information Collection Requirements

This rule requires that manufacturers perform certain recordkeeping and submit certain reports to EPA. The Paperwork Reduction Act of 1980, 44 USC 3501, et seq., provides that reporting and recordkeeping requirements be approved by OMB before they can be imposed on the public. The information collection requirements in this proposed rule have been addressed in previous rulemaking and approved by OMB (OMB control no. 2060–0132). However, any person wishing to comment on these requirements is invited to do so. Comments on these requirements should be submitted to OMB, Office of Information and Regulatory Affairs, 726 Jackson Place, NW., 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.

XII. List of Subjects in 40 CFR Part 86

Administrative practice and procedure, Air pollution control, Gasoline, Motor vehicles, Labeling, Motor vehicle pollution, Reporting and recordkeeping requirements.

Dated: April 11, 1990.

William K. Reilly,

Administrator.

For the reasons set forth in the preamble, 40 CFR part 86 is proposed to be amended as follows.

PART 86—CONTROL OF AIR POLLUTION FROM NEW MOTOR VEHICLES AND NEW MOTOR VEHICLE ENGINES: CERTIFICATION AND TEST PROCEDURES

1. The authority citation for part 86 continues to read as follows:

Authority: Sections 202, 203, 206, 207, 208, 215, and 301(a) of the Clean Air Act, as amended; 42 U.S.C. 7521, 7522, 7524, 7525, 7541, 7542, 7549, 7550, and 7601(a).

2. Paragraph (a)(16) of § 86.090–24 of subpart A is proposed to be added to read as follows:

§ 86.090–24 Test vehicles and engines.

(a) * * *

(16) Vehicles or engines identical in all respects listed in paragraph (a)(2) of this section shall be further divided into different engine families on the basis of NCP usage.

* * * * *

3. Paragraphs (a)(1)(iii)(C) and (a)(1)(iv)(C) of § 86.091–9 of subpart A are proposed to be revised to read as follows:

§ 86.091–9 Emission standards for 1991 and later model year light-duty trucks.

(a)(1) * * *

(iii) * * *

(C) A manufacturer may elect to include some or all of its light-duty truck engine families in the NO_x averaging program, provided that it does not elect to pay for noncompliance with any emission standard applicable to that light-duty truck family. Trucks produced for sale in California or in designated high-altitude areas may be averaged only within each of those areas. Petroleum-fueled and methanol-fueled engine families may not be averaged

together. Otto-cycle and diesel engine families may not be averaged together. If the manufacturer elects to participate in the NO_x averaging program, individual family NO_x emission limits may not exceed 2.3 grams per mile. If the manufacturer elects to average together NO_x emissions of light-duty trucks subject to the standards of paragraphs (a)(1)(iii)(A) and (a)(1)(iii)(B) of this section, its composite NO_x standard applies to the combined fleets of light-duty trucks up to and including, and over, 3750 lbs loaded vehicle weight included in the average, and is calculated as defined in § 86.088–2.

(iv) * * *

(C) A manufacturer may elect to include some or all of its diesel light-duty truck engine families in the appropriate particulate averaging program (petroleum or methanol), provided that it does not elect to pay an NCP for noncompliance with any emission standard applicable to that light-duty truck family. Trucks produced for sale in California or in designated high-altitude areas may be averaged only within each of those areas, and light-duty trucks subject to the standard of paragraph (a)(1)(iv)(B) of this section may be averaged only with other light-duty trucks subject to the standard of paragraph (a)(1)(iv)(B) of this section. Averaging is not permitted between fuel types. If the manufacturer elects to average both light-duty trucks subject to the standards of paragraphs (a)(1)(iv)(A) of this section and light-duty vehicles together in the appropriate averaging program, its composite particulate standard applies to the combined set of light-duty vehicles and light-duty trucks that are included in the average and is calculated as defined in § 86.088–2.

* * * * *

4. Paragraph (a)(1)(i)(C)(*2*) of § 86.091–10 of subpart A is proposed to be revised to read as follows:

§ 86.091–10 Emission standards for 1991 and later model year gasoline-fueled heavy-duty engines and vehicles.

(a)(1) * * *

(i) * * *

(C) * * *

(*2*) A manufacturer may elect to include some or all of its gasoline-fueled Otto-cycle heavy-duty engine families in the heavy-duty engine NO_x averaging program, provided that it does not elect to pay an NCP for noncompliance with any emission standard applicable to that engine family. Engines produced for sale in California or in 49-state areas may be averaged only within each of those areas. Averaging is limited to within fuel types (gasoline and methanol). If the manufacturer elects to participate in the NO_x averaging program, individual family NO_x emission limits may not exceed 6.0 grams per brake horsepower-hour (2.2 grams per megajoule).

* * * * *

5. Paragraph (a)(1)(iii)(B) of § 86.091–11 of subpart A is proposed to be revised to read as follows:

§ 86.091–11 Emission standards for 1991 and later model year diesel heavy-duty engines.

(a)(1) * * *

(iii) * * *

(B) A manufacturer may elect to include some or all of its diesel heavy-duty engine families in the heavy-duty NO_x averaging program, provided that it does not elect to pay an NCP for noncompliance with any emission standard applicable to that engine family. Engines produced for sale in California or in 49-state areas may be averaged only within each of those areas. Averaging is limited to within fuel types (petroleum or methanol). Averaging is limited to engines within a given primary service classes as defined in § 86.085–2. Averaging across primary service classes is not permitted. If the manufacturer elects to participate in the NO_x averaging program, individual family NO_X emission limits may not exceed 6.0 grams per brake horsepower-hour (2.2 grams per megajoule).

* * * * *

§ 86.091–35 [Amended]

6. Section 86.091–35 of subpart A is proposed to be amended by adding paragraph (a)(3)(iii)(N) to read as follows:

(a) * * *

(3) * * *

(iii) * * *

(N) For diesel engines which have been certified to comply with the urban bus particulate standard of 40 CFR 86.091–11(a)(1)(iv), the statement "This engine is certified for use in an urban bus as defined at 40 CFR 86.091–2." For diesel engines not certified to comply with the urban bus particulate standard, the statement "This engine is not certified for use in an urban bus as defined at 40 CFR 86.091–2. Sale of this engine for use in an urban bus is a violation of Federal law under the Clean Air Act."

* * * * *

7. Paragraph (b) of § 86.1102–87 of subpart L is proposed to be revised to read as follows:

§ 86.1102–87 Definitions.

* * * * *

(b) As used in this subpart, all terms not defined herein have the meaning given them in the Act.

Compliance level means the deteriorated pollutant emissions level at the 60th percentile point for a population of heavy-duty engines or heavy-duty vehicles subject to Production Compliance Audit testing pursuant to the requirements of this subpart. A compliance level for a population can only be determined for a pollutant for which an upper limit has been established in this subpart.

Configuration means a subdivision, if any, of a heavy-duty engine family for which a separate projected sales figure is listed in the manufacturer's Application for Certification and which can be described on the basis of emission control system, governed speed, injector size, engine calibration, or other parameters which may be designated by the Administrator, or a subclassification of light-duty truck engine family emission control system combination on the basis of engine code, inertia weight class, transmission type and gear ratios, rear axle ratio, or other parameters which may be designated by the Administrator.

NCP means a nonconformance penalty as described in section 206(g) of the Clean Air Act and in this subpart.

PCA means Production Compliance Audit as described in § 86.1106–87 of this subpart.

Subclass means a classification of heavy-duty engines or heavy-duty vehicles based on such factors as gross vehicle rating, fuel usage (gasoline-, diesel-, and methanol-fueled), vehicle usage, engine horsepower or additional criteria that the Administrator shall apply. Subclasses include, but are not limited to:

(a) Light-duty gasoline-fueled Otto cycle trucks (6,001–8,500 lb. GVW)
(b) Light-duty methanol-fueled Otto cycle trucks (6,001–8,500 lb. GVW)
(c) Light-duty petroleum-fueled diesel trucks (6,001–8,500 lb. GVW)
(d) Light-duty methanol-fueled diesel trucks (6,001–8,500 lb. GVW)
(e) Light heavy-duty gasoline-fueled Otto cycle engines (for use in vehicles of 8,501–14,000 lb. GVW)
(f) Light heavy-duty methanol-fueled Otto cycle engines (for use in vehicles of 8,501–14,000 lb. GVW)
(g) Heavy heavy-duty gasoline-fueled Otto cycle engines (for use in vehicles of 14,001 lb. and above GVW)
(h) Heavy heavy-duty methanol-fueled Otto cycle engines (for use in vehicles of 14,001 lb. and above GVW)
(i) Light heavy-duty petroleum-fueled diesel engines (see § 86.085–2(a)(1))
(j) Light heavy-duty methanol-fueled diesel engines (see § 86.085–2(a)(1))
(k) Medium heavy-duty petroleum-fueled diesel engines (see § 86.085–2(a)(2))

(l) Medium heavy-duty methanol-fueled diesel engines (see § 86.085–2(a)(2))
(m) Heavy heavy-duty petroleum-fueled diesel engines (see § 86.085–2(a)(3))
(n) Heavy heavy-duty methanol-fueled diesel engines (see § 86.085–2(a)(3))
(o) Petroleum-fueled Urban Bus engines (see § 86.091–2)
(p) Methanol-fueled Urban Bus engines (see § 86.091–2)

For NCP purposes, all optionally certified engines and/or vehicles (engines certified in accordance with § 86.087–10(a)(3) and vehicles certified in accordance with § 86.085–1(b)) shall be considered part of, and included in the FRAC calculation of, the subclass for which they are optionally certified.

Test Sample means a group of heavy-duty engines or heavy-duty vehicles of the same configuration which have been selected to receive emission testing.

Upper limit means the emission level for a specific pollutant above which a certificate of conformity may not be issued or may be suspended or revoked.

* * * * *

8. Section 86.1105–87 of subpart L is proposed to be amended by revising paragraphs (c) and (d) to read as follows:

§ 86.1105–87 Emissions standards for which nonconformance penalties are available.

* * * * *

(c) Effective in the 1991 model year, NCPs will be available for the following emission standards:

(1) Petroleum-fueled urban bus engine (as defined in § 86.091–2) particulate matter emission standard of 0.10 grams per brake horsepower-hour.

(i) The following values shall be used to calculate an NCP for the standard set forth in § 86.091–11(a)(1)(iv)(A) in accordance with § 86.1113–87(a):

(A) COC_{50}: $3,415.

(B) COC_{90}: $5,565.

(C) MC_{50}: $16,771 per gram per brake horsepower-hour.

(D) F: 1.2.

(E) UL: 0.60 grams per brake horsepower-hour.

(ii) The following factor shall be used to calculate the engineering and development component of the NCP for the standard set forth in § 86.091–11(a)(1)(iv)(A) in accordance with § 86.1113–87(h): 0.05.

(2) Petroleum-fueled diesel heavy-duty engine particulate matter emission standard of 0.25 grams per brake horsepower-hour.

(i) For petroleum-fueled light heavy-duty diesel engines:

(A) The following values shall be used to calculate an NCP in accordance with § 86.1113–87(a):

(*1*) COC_{50}: $1,480

(*2*) COC_{90}: $1,513

(*3*) MC_{50}: $5,833 per gram per brake horsepower-hour.

(*4*) F: 1.2

(B) The following factor shall be used to calculate the engineering and development component of the NCP in accordance with § 86.1113–87(h): 0.07.

(ii) For petroleum-fueled medium heavy-duty diesel engines:

(A) The following values shall be used to calculate an NCP in accordance with § 86.1113–87(a):

(*1*) COC_{50}: $905

(*2*) COC_{90}: $2,169

(*3*) MC_{50}: $7,083 per gram per brake horsepower-hour.

(*4*) F: 1.2

(B) The following factor shall be used to calculate the engineering and development component of the NCP in accordance with § 86.1113–87(h): 0.11.

(iii) For petroleum-fueled heavy heavy-duty diesel engines:

(A) The following values shall be used to calculate an NCP in accordance with § 86.1113–87(a):

(*1*) COC_{50}: $930

(*2*) COC_{90}: $1,630

(*3*) MC_{50}: $22,500 per gram per brake horsepower-hour.

(*4*) F: 1.2

(B) The following factor shall be used to calculate the engineering and development component of the NCP in accordance with § 86.1113–87(h): 0.11.

(3) Petroleum-fueled diesel heavy-duty oxides of nitrogen standard of 5.0 grams per brake horsepower-hour.

(i) For petroleum-fueled light heavy-duty diesel engines:

(A) The following values shall be used to calculate an NCP in accordance with § 86.1113–87(a):

(*1*) COC_{50}: $830

(*2*) COC_{90}: $946

(*3*) MC_{50}: $1,167 per gram per brake horsepower-hour.

(*4*) F: 1.2

(B) The following factor shall be used to calculate the engineering and development component of the NCP in accordance with § 86.1113–87(h): 0.12.

(ii) For petroleum-fueled medium heavy-duty diesel engines:

(A) The following values shall be used to calculate an NCP in accordance with § 86.1113–87(a):

(*1*) COC_{50}: $905

(*2*) COC_{90}: $1,453

(*3*) MC_{50}: $1,417 per gram per brake horsepower-hour.

(*4*) F: 1.2

(B) The following factor shall be used to calculate the engineering and development component of the NCP in accordance with § 86.1113–87(h): 0.11.

(iii) For petroleum-fueled heavy heavy-duty diesel engines:

(A) The following values shall be used to calculate an NCP in accordance with § 86.1113–87(a):

(*1*) COC_{50}: $930

(*2*) COC_{90}: $1,590

(*3*) MC_{50}: $2,250 per gram per brake horsepower-hour.

(*4*) F: 1.2

(B) The following factor shall be used to calculate the engineering and development component of the NCP in accordance with § 86.1113–87(h): 0.11.

(4) Petroleum-fueled diesel light-duty trucks (between 6,001 and 14,000 lbs GVW) particulate matter emission standard of 0.13 grams per vehicle mile.

(i) The following values shall be used to calculate an NCP in accordance with § 86.1113–87(a):

(A) COC_{50}: $711

(B) COC_{90}: $1,396

(C) MC_{50}: $2,960 per gram per vehicle mile.

(D) F: 1.2

(ii) The following factor shall be used to calculate the engineering and development component of the NCP in accordance with § 86.1113–87(h): 0.01.

(d) The values of COC_{50}, COC_{90}, and MC_{50} in paragraphs (a) and (b) of this section are expressed in December 1984 dollars. The values of COC_{50}, COC_{90}, and MC_{50} in paragraph (c) of this section are expressed in December 1989 dollars. These values shall be adjusted for inflation to dollars as of January of the calendar year preceding the model year in which the NCP is first available by using the change in the overall Consumer Price Index, and rounded to the nearest whole dollar in accordance with ASTM E29–67.

9. Section 86.1106–87 is amended by revising paragraph (a)(2) to read as follows:

§ 86.1106–87 Production compliance auditing.

* * * * *

(a) * * *

(2) PCA testing must be conducted on the same configuration tested during Certification, unless an alternate configuration is approved by the Administrator.

* * * * *

10. Section 86.1113–87 is amended by revising paragraphs (a)(3)(iv), (a)(6), (g)(3), (g)(3)(i), and adding paragraphs (g)(5) and (g)(6) to read as follows:

§ 86.1113–87 Calculation and payment of penalty.

(a) * * *

(3) * * *

(iv) In calculating the NCP for year n, the value $frac_{i-1}$ for i=n will include actual NCP usage through March 31 of model year n–1 and EPA's estimate of additional usage for the remainder of model year n–1 using manufacturer input. All manufacturers using NCPs must report by subclass actual NCP and non-NCP production numbers through March 31, an estimate of NCP and non-NCP production for the remainder of the model year, and the previous year's actual NCP and non-NCP production to EPA no later than April 30 of the model year. If EPA is unable to obtain similar information from manufacturers not using NCPs, EPA will use projected sales data from the manufacturer's applications for certification in computing the total production of the subclass and the $frac_{i-1}$. The value of $frac_{i-1}$ will be corrected to reflect actual year-end usage of NCPs and a corrected AAF will be used to establish NCPs in future years. The correction of previous year's AAF will not affect the previous year's penalty.

* * * * *

(6) In calculating the NCP, appropriate values of the following predefined terms should be used: CL, S, UL, F, and A_i. For all other terms, unrounded values of at least five figures beyond the decimal point should be used in calculations leading up to the penalty amount. Any NCP calculated under paragraph (a) of this section will be rounded to the nearest dollar in accordance with ASTM E29–67.

* * * * *

(g) * * *

(3) A manufacturer making payment under paragraph (g)(1) or (g)(2) of this section shall submit the following information by each quarterly due date to: Director, Manufacturers Operations Division, U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460. This information shall be submitted even if a manufacturer has no NCP production in a given quarter.

(i) Corporate identification, identification and quantity of engines or vehicles subject to the NCP, certificate identification (number and date), NCP payment calculations and interest payment calculations, if applicable.

* * * * *

(5)(i) Interest shall be assessed on any nonconformance penalty for which payment has been withheld under § 86.1113–87(g) (1) or (2). Interest shall be calculated from the due date for the first quarterly NCP payment, as determined under § 86.1113–87(g)(1), until either the date on which the Presiding Officer or the Administrator renders the final decision of the Agency under § 86.1115–87 or the date when an alternate payment schedule (approved pursuant to § 86.1113–87(g)(1)) ends.

(ii) The combined principal plus interest on each quarterly NCP payment withheld pursuant to § 86.1113–87(g) (1) or (2) shall be calculated according to the formula:

$$QNCP(1+R)^{.25n}$$

where:

QNCP = the quarterly NCP payment
R = the interest rate applicable to that quarter
n = the number of quarters for which the quarterly NCP payment is outstanding.

(iii) The number of quarters for which payment is outstanding for purposes of this paragraph shall be the number of quarterly NCP payment due dates, as determined under § 86.1113–87(g)(1), which have elapsed throughout the duration of a hearing request, or alternate payment schedule.

(iv) The interest rate applicable to a quarter for purposes of this paragraph shall be the rate published by the Secretary of the Treasury pursuant to the Debt Collection Act of 1982 and effective on the date on which the NCP payment was originally due.

(6) A manufacturer will be refunded an overpayment, or be permitted to offset an overpayment by withholding a future payment, if approved in advance by the Administrator. The government shall pay no interest on overpayments.

* * * * *

§ 86.1115–87 [Amended]

11. In § 86.1115–87, paragraphs (z)(1)–(z)(4) are removed, and (aa) is redesignated as (z).

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April 25, 1990

Part III

Department of the Interior

Fish and Wildlife Service

50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Lyrate Bladder-pod and Dusky Seaside Sparrow; Proposed Rules

DEPARTMENT OF THE INTERIOR

50 CFR Part 17

RIN 1018-AB38

Endangered and Threatened Wildlife and Plants; Proposed Threatened Status for Lesquerella lyrata (Lyrate Bladder-pod)

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: The Service proposes to determine a plant, *Lesquerella lyrata* (lyrate bladder-pod), to be a threatened species under the authority contained in the Endangered Species Act (Act) of 1973, as amended. This species is currently known from only two populations in cedar glade areas of northwest Alabama (Colbert and Franklin Counties). This species is extremely vulnerable due to its limited range, the loss of much suitable habitat from urbanization and agricultural practices and apparent need for active management to sustain current populations. This proposal, if made final, would implement Federal protection provided by the Act for *Lesquerella lyrata*. The Service seeks data and comments from the public on this proposal.

DATES: Comments from all interested parties must be received by June 25, 1990. Public hearing requests must be received by June 11, 1990.

ADDRESSES: Comments and materials concerning this proposal should be sent to Complex Field Supervisor, U.S. Fish and Wildlife Service, Jackson Mall Office Center, Suite 316, 300 Woodrow Wilson Avenue, Jackson, Mississippi 39213. Comments and material received will be available for public inspection, by appointment, during normal business hours at the above address.

FOR FURTHER INFORMATION CONTACT: Cary Norquist, at the above address (601/965-4900 or FTS 490-4900).

SUPPLEMENTARY INFORMATION:

Background

Lesquerella lyrata, a member of the mustard family (Brassicaceae), is an annual that ranges from 1 to 3 decimeters (4 to 12 inches) in height. Plants are shortly pubescent and usually branched near the base. The stem leaves are alternate, ovate to elliptic in shape, smooth or toothed on the margins, with prominent ear-like projections at the bases. The flowers are ascending, on stalks 10 to 15 millimeters (mm) (0.4 to 0.6 inches) long, with yellow petals 5 to 7 mm (0.2 to 0.3 inch) in length. The fruits are silques, globose in shape, 2.5 to 3.5 mm (0.1 inch) long and 3 to 4 mm wide (0.1 to 0.2 inch) (Rollins and Shaw 1973, McDaniel 1987). This species is dormant in the summer, surviving as seeds; germinates in the fall; and overwinters as a rosette (J. Baskin, University of Kentucky, pers. comm. 1989). Plants flower from March to April and fruit and disperse seeds in late April and May.

Lesquerella lyrata, is most closely related to *L. densipila*, which occurs disjunctly in Alabama (Rollins 1955). The morphologically similar *L. densipila* has fruits and styles that are pubescent as opposed to those of *L. lyrata*, which are glabrous (Rollins 1955, Rollins and Shaw 1973, McDaniel 1987). Although no one questions the distinctiveness of *L. lyrata*, some suggest that a more appropriate separation of these two taxa would be at the varietal level (McDaniel 1987).

Lesquerella lyrata, was discovered and described by R.C. Rollins (1955) from specimens he collected at three sites in Franklin County, Alabama. This species was thought to be extinct until it was rediscovered near the type locality in 1984 (Webb and Kral 1986). Extensive field surveys have been conducted for this species repeatedly (Webb pers. comm. 1989, Webb and Kral 1986, McDaniel 1987). However, only one additional population has been located, which is in Colbert County, Alabama (Webb and Kral 1986). In addition, no plants have been located at two of the original localities in Franklin County cited by Rollins (1955), despite repeated attempts (Webb and Kral 1986, McDaniel 1987). Currently, only two populations of *L. lyrata* are known to exist with one each in Franklin and Colbert Counties, Alabama.

Lesquerella lyrata is a component of glade flora and occurs in association with limestone outcroppings. The terms "glade" and "cedar glade" refer to these shallow-soiled, open areas that are sometimes surrounded by cedar (*Juniperus virginiana*) woods. *Lesquerella lyrata* often occurs essentially without associates; however, at times it may occur with *Leavenworthia alabamica, Arenaria patula, Sedum puchellum* and weedy species such as *Ceratium glomeratum* and *Krigia oppositifolia*. Current populations are located primarily on glade-like areas that exhibit various degrees of disturbance, including unimproved pastures, cultivated/plowed fields and roadside rights-of-way. Most of the cedar glade endemics exhibit such weedy tendencies; however, none appear to spread far from their original glade habitat (Baskin and Baskin 1986, Webb and Kral 1986). Each population of *L. lyrata* consists of several sites located within a 0.4 to 0.8 kilometer (0.25 to 0.5 mile) radius of one another. Population size varies, as with all annuals; however, at times, sites are reported to support hundreds to thousands of individuals (Webb and Kral 1986, McDaniel 1987).

Both populations are located on privately owned lands. No sites are protected and current populations have been declining over the last few years due to succession from the lack of regular disturbance/management that is needed to maintain populations (Webb pers. comm. 1989, McDaniel 1987).

Federal actions involving *Lesquerella lyrata* began with section 12 of the Endangered Species Act of 1973, which directed the Secretary of the Smithsonian Institution to prepare a report on those plants considered to be endangered, threatened, or extinct. This report, designated as House Document No. 94-51, was presented to Congress on January 9, 1975. On July 1, 1975, the Service published a notice (40 FR 27823) of its acceptance of the report as a petition within the context of section 4(c)(2), now section 4(b)(3)(a), of the Act and of its intention thereby to review the status of those plants. On June 16, 1976, the Service published a proposed rule (41 FR 24523) to determine approximately 1,700 vascular plant species to be endangered species pursuant to section 4 of the Act. *Lesquerella lyrata* was included in the Smithsonian petition and the 1976 proposal. General comments received in relation to the 1976 proposal were summarized in an April 26, 1978 publication (43 FR 17909).

The Endangered Species Act Amendments of 1978 required that all proposals over 2 years old be withdrawn. A 1-year grace period was given to proposals already over 2 years old. In December 1979, the Service published a notice of withdrawal of the June 16, 1976 proposal (44 FR 70796), along with four other proposals that had expired. *Lesquerella lyrata* was included as a category 1* species in a revised list of plants under review for threatened or endangered classification published December 15, 1980 (45 FR 82480). Category 1* comprises taxa for which the Service presently has sufficient biological information to support their being proposed to be listed as endangered or threatened species, but they may have already become extinct. On November 28, 1983, the Service published a supplement to the Notice of Review for Native Plants (48 FR 53640); the plant notice was again

revised September 27, 1985 (50 FR 39526). *Lesquerella lyrata* was included as a category 2 species in the 1983 supplement and the 1985 revised notice. Category 2 species are those for which listing as endangered or threatened species may be warranted but for which substantial data on biological vulnerability and threats are not currently known or on file to support a proposed rule. Data obtained over the last few years now supports the plant's reelevation to category 1 and listing as threatened. The data demonstrate a limited distribution and continuing threats to the species.

Section 4(b)(3) of the Endangered Species Act, as amended in 1982, requires the Secretary to make certain findings on pending petitions within 12 months of their receipt. Section 2(b)(1) of the 1982 amendments further requires that all petitions pending on October 13, 1982 be treated as having been newly submitted on that data. This was the case for *Lesquerella lyrata* because of the acceptance of the 1975 Smithsonian report as a petition. In October of 1983, 1984, 1985, 1987, 1988, and 1989, the Service found that the petitioned listing of *Lesquerella lyrata* was warranted, but that listing this species was precluded due to other higher priority listing actions and additional data were being gathered. Publication of the present proposal constitutes the final 1-year finding that is required.

Summary of Factors Affecting the Species

Section 4(a)(1) of the Endangered Species Act (16 U.S.C. 1531 *et seq.*) and regulations (50 CFR part 424) promulgated to implement the listing provisions of the Act set forth the procedures for adding species to the Federal lists. A species may be determined to be an endangered or threatened species due to one or more of the five factors described in section 4(a)(1). These factors and their application to *Lesquerella lyrata* Rollins (lyrate bladder-pod) are as follows:

A. *The present or threatened destruction, modification, or curtailment of its habitat or range. Lesquerella lyrata* is endemic to cedar glade areas in northwestern Alabama. It is thought that this species evolved on glade systems that are now highly disturbed and exist as isolated pockets surrounded by agricultural lands (Webb and Kral 1986). Some cedar glade systems continue to be adversely modified as they are utilized for agricultural purposes, while others have been destroyed by housing development or garbage dumping (Kral 1983). Baskin and Baskin (1985) state that few glades in the Southeast have been left completely undisturbed. As noted previously in this document, *L. lyrata* now occurs primarily in disturbed glade areas including cultivated fields and unimproved pastures. Thus, agricultural use and the survival of this species are not necessarily incompatible (Webb and Kral 1986). However, periodic disturbance is needed to arrest succession and maintain populations of *Lesquerella lyrata* in this type of habitat. Such is accomplished by the plowing associated with row crop farming. While the plant may survive under these conditions, populations may be impacted if plowing or herbicide treatment occurs in the spring prior to seed set and dispersal (mid-May). Populations located in pastures are enhanced by disturbance created from light grazing; however, if sites are heavily grazed, such could negatively impact plants by excessive soil compaction. Improvement of pastures with the introduction of forage grasses would eventually decimate populations due to competition (Kral 1983). Mowing along the roadside rights-of-way aids the species in seed dispersal; however, herbicide application poses a threat if applied before seed set (Webb and Lyons 1984).

No site where *Lesquerella lyrata* occurs is protected. Thus, individual sites could be destroyed for developmental purposes as has been the case with other glade areas.

B. *Overutilization for commercial, recreational, scientific, or educational purposes.* This species is collected for scientific purposes; however, such does not pose a significant threat to this species at this time.

C. *Disease or predation.* None known.

D. *The inadequacy of existing regulatory mechanisms. Lesquerella lyrata* is unofficially considered endangered in the State of Alabama; however, such designation does not afford this species any legal protection.

E. *Other natural or manmade factors affecting its continued existence.* The greatest threat to this species is its extreme vulnerability due to its limited range and small number of populations. Disturbance (natural or artificial) appears to be a key factor in the maintenance of *L. lyrata* (McDaniel 1987); thus, active management of sites will be required to perpetuate this species. Under natural conditions, *Lesquerella lyrata* is an early sucessional species that colonizes shallow cedar glade soils and then slowly disappears as the soil layer becomes further developed (E. Lyons, Amherst College, pers. comm. 1989). This species is a poor competitor and is eliminated by shade and competition from the invading perennials (Kral 1983, McDaniel 1987). Due to the continuing loss of cedar glades, presently available habitat for *L. lyrata* is limited primarily to areas modified by human activity. Current populations have declined in recent years due to succession from a lack of management/disturbance (Webb, pers. comm. 1989, McDaniel 1987). Periodic disturbance of habitat arrests succession and brings seeds to the surface, which facilitates germination (Baskin, pers. comm. 1989, Webb and Lyons 1984). As with all annuals, this species' long-term survival is dependent upon its ability to reproduce and reseed an area every year. Thus, populations decline and move toward extinction if conditions remain unsuitable for reproduction for many years.

The Service has carefully assessed the best scientific and commercial information available regarding the past, present, and future threats faced by this species in determining to propose this rule. Based on this evaluation, the preferred action is to list *Lesquerella lyrata* as threatened. Threatened status seems appropriate since this species is not in imminent danger of extinction. However, this species is highly vulnerable due to its restricted range and is likely to become endangered in the foreseeable future if protective measures are not taken. Critical habitat is not being designated for reasons discussed in the following section.

Critical Habitat

Section 4(a)(3) of the Act, as amended, requires that, to the maximum extent prudent and determinable, the Secretary propose critical habitat at the time the species is proposed to be endangered or threatened. The Service finds that designation of critical habitat is not presently prudent for this species. Publication of critical habitat maps will increase public interest and possibly lead to additional threats to this species from collecting and vandalism. This species occurs at a limited number of sites and all are easily accessible. Taking is an activity difficult to enforce against and only regulated by the Act with respect to plants in cases of (1) removal and reduction to possession of listed plants from lands under Federal jurisdiction, or their malicious damage or destruction on such lands; and (2) removal, cutting, digging up, or damaging or destroying in knowing violation of any State law or regulation, including State criminal trespass law. Such provisions are difficult to enforce and publication of critical habitat

descriptions and maps would make *Lesquerella lyrata* more vulnerable and increase enforcement problems. All involved State agencies and principal landowners have been notified of the location and importance of protecting this species' habitat. Protection of this species' habitat will be addressed through the recovery process and through the Section 7 jeopardy standard. Therefore, it would not now be prudent to determine critical habitat for *Lesquerella lyrata.*

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the Endangered Species Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing encourages and results in conservation actions by Federal, State, and private agencies, groups, and individuals. The Endangered Species Act provides for possible land acquisition and cooperation with the States and requires that recovery actions be carried out for all listed species. The protection required of Federal agencies and the prohibitions against certain activities involving listed plants are discussed, in part, below.

Section 7(a) of the Act, as amended, requires Federal agencies to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened and with respect to its critical habitat, if any is being designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR part 402. Section 7(a)(4) requires Federal agencies to confer informally with the Service on any action that is likely to jeopardize the continued existence of a proposed species or result in destruction or adverse modification of proposed critical habitat. If a species is listed subsequently, section 7(a)(2) requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of such a species or to destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency must enter into formal consultation with the Service.

All known populations are under private ownership. The Environmental Protection Agency would consider this species relative to pesticide use.

The Act and its implementing regulations found at 50 CFR 17.71 and 17.72 set forth a series of general trade prohibitions and exceptions that apply to all threatened plants. All trade prohibitions of section 9(a)(2) of the Act, implemented by 50 CFR 17.71, would apply. These prohibitions, in part, make it illegal for any person subject to the jurisdiction of the United States to import or export, transport in interstate or foreign commerce in the course of a commercial activity, sell or offer for sale this species in interstate or foreign commerce, or to remove and reduce to possession the species from areas under Federal jurisdiction. Seeds from cultivated specimens of threatened plant species are exempt from these prohibitions provided that a statement of "cultivated origin" appears on their containers. In addition, for endangered plants, the 1988 amendments (Pub. L. 100–478) to the Act prohibit the malicious damage or destruction on Federal lands and the removal, cutting, digging up, or damaging or destroying of endangered plants in knowing violation of any State law or regulation, including State criminal trespass law. The 1988 amendments do not reflect this protection for plants classified as threatened. Certain exceptions apply to agents of the Service and State conservation agencies. The Act and 50 CFR 17.72 also provide for the issuance of permits to carry out otherwise prohibited activities involving threatened species under certain circumstances.

It is anticipated that few trade permits would ever be sought or issued because the species is not common in cultivation or in the wild. Requests for copies of the regulations on plants and inquiries regarding them may be addressed to the Office of Management Authority, U.S. Fish and Wildlife Service, Post Office Box 3507, Arlington, Virginia 22203–3507 (703/358–2104).

Public Comments Solicited

The Service intends that any final action resulting from this proposal will be as accurate and as effective as possible. Therefore, comments or suggestions from the public, other concerned governmental agencies, the scientific community, industry, or any other interested party concerning this proposed rule are hereby solicited. Comments particularly are sought concerning:

(1) Biological, commercial trade, or other relevant data concerning any threat (or lack thereof) to this species;

(2) The location of any additional populations of this species and the reasons why any habitat should or should not be determined to be critical habitat as provided by section 4 of the Act;

(3) Additional information concerning the range, distribution, and population size of this species; and

(4) Current or planned activities in the subject area and their possible impacts on this species.

Final promulgation of the regulation on this species will take into consideration the comments and any additional information received by the Service, and such communications may lead to a final regulation that differs from this proposal.

The Endangered Species Act provides for a public hearing on this proposal, if requested. Requests must be received within 45 days of the date of publication of the proposal. Such requests must be made in writing and addressed to Complex Field Supervisor (See **ADDRESSES** section).

National Environmental Policy Act

The Fish and Wildlife Service has determined that an Environmental Assessment, as defined under the authority of the National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted pursuant to section 4(a) of the Endangered Species Act of 1973, as amended. A notice outlining the Service's reasons for this determination was published on October 25, 1983 (48 FR 49244).

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Author

The primary author of this proposed rule is Cary Norquist (see **ADDRESSES** Section).

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Fish, Marine mammals, Plants (agriculture).

Proposed Regulation Promulgation

Accordingly, it is hereby proposed to amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

PART 17—[AMENDED]

1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361–1407; 16 U.S.C. 1531–1543; 16 U.S.C. 4201–4245; Pub. L. 99–625, 100 Stat. 3500; unless otherwise noted.

2. It is proposed to amend § 17.12(h) by adding the following, in alphabetical order under Brassicaceae, to the List of Endangered and Threatened Plants:

§ 17.12 Endangered and threatened plants.

* * * * * *

(h) * * *

Species		Historic range	Status	When listed	Critical habitat	Special rules
Scientific name	Common name					
BRASSICACEAE						
•	•	•	•	•	•	
Lesquerella lyrata	Lyrate bladder-pod	U.S.A. (AL)	T		NA	NA
•	•	•	•	•	•	

Dated: March 30, 1990.

Richard N. Smith,

Acting Director, Fish and Wildlife Service.

[FR Doc. 90–9459 Filed 4–24–90; 8:45 am]

BILLING CODE 4310–55–M

50 CFR Part 17

RIN 1018–AB38

Endangered and Threatened Wildlife and Plants: Proposed Rule to Delist the Dusky Seaside Sparrow and to Remove its Critical Habitat Designation

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: The Service proposes to remove the dusky seaside sparrow (*Ammodramus maritimus nigrescens*) from the List of Endangered and Threatened Wildlife, and to remove its critical habitat designation. All available information indicates that this bird is extinct. The dusky seaside sparrow is known to have occurred only on Merritt Island and the upper St. Johns River marshes of Brevard County, Florida. It has been extirpated by the conversion of salt marshes to mosquito impoundments, and by drainage, land use changes, and unsuitable fire regimes. The Service seeks data and comments from the public on this proposal.

DATES: Comments from all interested parties must be received by June 25, 1990. Public hearing requests must be received by June 11, 1990.

ADDRESSES: Comments and materials concerning this proposal should be sent to Field Supervisor, Jacksonville Field Office, U.S. Fish and Wildlife Service, 3100 University Boulevard South, Suite 120, Jacksonville, Florida 32216. Comments and material received will be available for inspection, by appointment, during normal business hours at the above address.

FOR FURTHER INFORMATION CONTACT: Mr. David J. Wesley, Field Supervisor, at the above address (904/791–2580; FTS 946–2580).

SUPPLEMENTARY INFORMATION:

Background

The dusky seaside sparrow was described by Ridgway in 1873, as *Fringilla nigrescens* (Baird and Ridgway 1873). The bird had been discovered by Charles Maynard in 1872, and described by him in 1875, but Ridgway's description preceded Maynard's. The species was subsequently transferred to the genus *Ammospiza*. It was retained as a full species until 1973, when it was reduced to subspecific status under the seaside sparrow, *Ammospiza maritima* (American Ornithologists' Union 1973). In 1982, seaside sparrows were placed in the genus *Ammodramus* (American Ornithologists' Union 1982).

The dusky seaside sparrow is distinguished from other subspecies of the seaside sparrow by its dark coloration and by characteristics of its song (McDonald 1988). Avise and Nelson (1989) found that the mitochondrial DNA of the dusky seaside sparrow was virtually indistinguishable from other Atlantic coast populations of *Ammodramus maritimus*, and implied that the subspecific status of the subspecies was not merited. McDonald (1988), however supported the validity of the taxon and the dusky seaside sparrow is expected to continue to be recognized as a valid subspecies in the American Ornithologists' Union Checklist.

The subspecies has never been found outside its limited range in cordgrass (*Spartina bakeri*) marshes on Merritt Island and the adjacent St. Johns River basin in Brevard County, Florida. Historically, the dusky seaside sparrow occurred in marshes along the Indian River on the northwest coast of Merritt Island, from the Moore Creek-Banana Creek area to Dimmit Creek; and on the mainland in marshes on the east side of the St. Johns River from just south of Salt Lake south to the vicinity of Cocoa. The mainland range was entirely confined to areas between State Routes 46 and 520, within a 10-mile radius of Titusville.

Howell (1932) considered dusky seaside sparrows to be common throughout their range on Merritt Island, but less common in the St. Johns River Basin. Trost (1968) reported that the construction of mosquito control impoundments, beginning in 1956, caused the salt marsh vegetation to change to fresh water species. He believed that these alterations had resulted in a marked population decline in the dusky seaside sparrow. He also stated that the field notes of D.J. Nicholson reported an estimated 70 percent decline in populations from 1942 to 1953, following widespread use of DDT for mosquito control on Merritt Island.

Service actions concerning the dusky seaside sparrow began with its listing as an endangered species, pursuant to the Endangered Species Preservation Act of

1966, on March 11, 1967 (32 FR 4001). This listing was maintained under the Endangered Species Act of 1973, as amended.

Merritt Island National Wildlife Refuge was established in 1963, and efforts were made to restore one of the mosquito impoundments to salt marsh (Sykes 1980). A notice of intent to determine critical habitat for the dusky seaside sparrow was published May 16, 1975 (40 FR 21499). Critical habitat was proposed for the bird on December 3, 1976 (41 FR 53074) and was designated on September 22, 1977 (42 FR 47840). Subsequently, much of the critical habitat in the St. Johns River marshes was acquired as the St. Johns National Wildlife Refuge. Despite these conservation efforts, dusky seaside sparrow populations continued to decline as salt marsh vegetation deteriorated.

Sharp (1970a) estimated that 2,000 pairs had originally occurred on Merritt Island, but if Nicholson's (in Trost 1968) estimate of a 70 percent reduction was accurate, only about 600 pairs were left by 1957. Sharp also quotes an estimate by Trost of 70 pairs in 1961–1963. Sharp's (1970a) 1968 spring survey found only 33–34 singing males remaining on Merritt Island. Subsequent surveys (Sykes 1980) found the following numbers of singing males on Merritt Island: 1969, 30; 1970, 18; 1971, 8; 1972, 11; 1973–1975, 2 each year; 1976, none; 1977, 2. No dusky seaside sparrows were found on Merritt Island after 1977.

The earliest available population estimate of the dusky seaside sparrow for the St. Johns River marshes is Sharp's (1970a) 1968 figure of 894 singing males. Sharp subsequently (1970b) found 143 singing dusky seaside sparrows on the proposed St. Johns National Wildlife Refuge lands in 1970. Baker (1978) reported a continuing decline in singing male surveys in the St. Johns River marshes: 1972, 110; 1973, 54; 1974, 37; 1975, 47; 1976, 11; 1977, 28; 1978, 24; 1979, 13. An extensive survey effort in 1980 (Delany et al. 1981) found only four singing males; no dusky seaside sparrows were found in 1981 (Delany et al. 1981). Following the death of the last captive dusky seaside sparrow in 1987, representatives of the Service, the Florida Game and Fresh Water Fish Commission, and the Florida Audubon Society agreed that it would be appropriate to carry out another survey for the dusky seaside sparrow prior to a proposal to delist the bird. Accordingly, participants from the above organizations carried out a survey in the spring of 1989 (Bentzien 1989). Suitable habitat for the bird appeared to have decreased greatly since the 1980–1981 surveys, and no dusky seaside sparrows were seen.

The decline of the birds in the St. Johns National Wildlife Refuge and in adjacent marshes was due to drainage, highway construction, burning of marshes to improve pasture, and wildfire. Wildfires were particularly severe in 1973 and in 1975–1976. Although fire is a natural feature in the St. Johns marshes, the lowered water tables and deliberate man-caused burns in the already fragmented habitat meant that the dusky seaside sparrow had very little available habitat following extensive burning.

Three male birds were taken into captivity in 1979, and three more in 1980, to begin a captive breeding program. The Service, the Florida Game and Fresh Water Fish Commission, the Florida State Museum (now the Florida Museum of Natural History), the Florida Audubon Society, the Santa Fe Community College Teaching Zoo, and the Walt Disney World Discovery Island were involved in the project at various points. When it became apparent that no female dusky seaside sparrows were likely to be found, some work was done crossing the dusky males with females of Scott's seaside sparrow (*Ammodramus maritimus peninsulae*); several birds were produced as the result of crosses and subsequent backcrosses. In 1982, however, the Service decided that because such hybrid offspring were not listed under the Endangered Species Act, such progeny should not be released on the refuge. However, the Service agreed to give custody of the birds to another party. The ultimate custodian of the male duskies and their offspring was Discovery World, assisted by the Florida Audubon Society. The advanced age of the captive dusky males resulted in difficulties with the cross breeding program, and the last dusky male died of natural causes on June 16, 1987. All offspring also died or were lost by accident by the summer of 1989.

Summary of Factors Affecting the Species

Regulations (50 CFR part 424) promulgated to implement the listing provisions of the Endangered Species Act (16 U.S.C. 1531 *et seq.*) require that certain factors be considered before a species can be listed, reclassified, or delisted. These factors and their application to the dusky seaside sparrow (*Ammodramus maritimus nigrescens*) are as follows:

A. *The present or threatened destruction, modification, or curtailment of its habitat or range.* The dusky seaside sparrow was known to occur only in a small area near Titusville, Brevard County, Florida. The marsh habitat to which this bird was restricted has been destroyed or modified by flooding marshes for mosquito control; and by drainage, development, and fire. The dusky seaside sparrow is believed to be extirpated throughout this range.

B. *Overutilization for commercial, recreational, scientific, or educational purposes.* Not applicable.

C. *Disease or predation.* Not applicable.

D. *The inadequacy of existing regulatory mechanisms.* Not applicable.

E. *Other natural or manmade factors affecting its existence.* The last captive dusky seaside sparrow died on June 16, 1987.

The regulations at 50 CFR 424.11(d) state that a species may be delisted if: (1) It becomes extinct, (2) it recovers, or (3) the original classification data were in error. The Service believes that enough evidence exists to declare the dusky seaside sparrow extinct.

Effect of Rules

The proposed action would result in the removal of this species from the List of Endangered and Threatened Wildlife, and in the removal of its critical habitat designation. Federal agencies would no longer be required to consult with the Secretary to insure that any action authorized, funded, or carried out by such agency is not likely to jeopardize the continued existence of the dusky seaside sparrow or adversely modify its critical habitat. Federal restrictions on taking of this species would no longer apply. The Service's Division of Wildlife Resources would reevaluate management options for the St. John National Wildlife Refuge.

Public Comments Solicited

The Service intends that any final action resulting from this proposal will be as accurate and as effective as possible. Therefore, comments or suggestions regarding any aspect of the proposal are hereby solicited from the public, other concerned governmental agencies, the scientific community, industry, or other interested parties. The Service particularly requests any evidence that the dusky seaside sparrow is not extinct.

National Environmental Policy Act

The Fish and Wildlife Service has determined that an Environmental Assessment, as defined under the authority of the National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted

pursuant to section 4(a) of the Endangered Species Act of 1973, as amended. A notice outlining the Service's reasons for this determination was published in the **Federal Register** on October 25, 1983, (49 FR 49244).

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Author

The primary author of this proposed rule is Dr. Michael M. Bentzien (see **ADDRESSES** section above).

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Fish, Marine mammals, Plants (agriculture).

Proposed Regulations Promulgation

Accordingly, it is hereby proposed to amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

PART 17—[AMENDED]

1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361–1407; 16 U.S.C. 1531–1543; 16 U.S.C. 4201–4245; Pub. L. 99–625, 100 Stat. 3500; unless otherwise noted.

§ 17.11 [Amended]

2. It is proposed to amend § 17.11(h) by removing the entry for the "Sparrow, dusky seaside * * * *Ammodramus (=Ammospiza) maritimus nigrescens*" under BIRDS from the List of Endangered and Threatened Wildlife.

§ 17.95 [Amended]

3. It is further proposed to amend § 17.95(b) for animals by removing the critical habitat entry for the dusky seaside sparrow (*Ammospiza maritima nigrescens).*

Dated: March 23, 1990.

Richard N. Smith,

Acting Director, Fish and Wildlife Service.

[FR Doc. 90–9460 Filed 4–24–90; 8:45 am]

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federal register

Wednesday
April 25, 1990

Part IV

Environmental Protection Agency

Section 409 Tolerances; Response to Petition Requesting Revocation of Food Additive Regulations; Notice