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Environmental Protection Agency

40 CFR Parts 202 and 205

Noise Abatement Programs: Motor
Carriers Engaged in Interstate
Commerce; and Medium and Heavy
Trucks (Transportation Equipment);
Effective Date Deferral; Final Rule

ENVIRONMENTAL PROTECTION AGENCY**40 CFR Parts 202 and 205**

(OAR FRL 2934-8)

Noise Standards; Motor Carriers Engaged in Interstate Commerce; Transportation Equipment Noise Emission Controls; Medium and Heavy Trucks**AGENCY:** Environmental Protection Agency.**ACTION:** Final rule.

SUMMARY: By this action, the Environmental Protection Agency concurrently amends two noise regulations for medium and heavy trucks, as follows:

1. Defers from January 1, 1986 to January 1, 1988, the effective date of the 80 decibel (dB) noise standard under 40 CFR Part 205, Subpart B, for newly manufactured medium and heavy trucks having GVWR¹ greater than 10,000 pounds; and

2. Reduces by 3 decibels (3dB) the noise limits under 40 CFR Part 202, Subpart B, for motor carriers engaged in interstate commerce. The revised not-to-exceed sound levels for 1986 and later model year vehicles, having a GVWR greater than 10,000 pounds, are as follows: 83 dB at speeds of 35 MPH or less; 87 dB at speeds above 35 MPH; and 85 dB when the truck engine is accelerated to maximum engine speed with the vehicle stationary.

These two closely related actions, promulgated in response to petitions from the truck industry, are expected to permit coordinated design and engineering efforts by manufacturers to comply with both noise and emissions control requirements. Although the deferral of the 80-dB standard will cause some loss of near-term health and welfare benefits, the reduction of the in-use noise limits will provide counterbalancing short-term benefits and substantial long-term benefits.

DATES:

1. Effective January 8, 1986.
2. The 80 dB noise standard for medium and heavy trucks applies to trucks manufactured on or after January 1, 1988.
3. The revised noise limits for trucks operated by motor carriers engaged in interstate commerce applies to all such trucks of 1986 and later model years.

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SUPPLEMENTARY INFORMATION:**I. Introduction**

These two closely related actions are promulgated in response to petitions for a delay of the medium and heavy truck (MHT) 80 dB noise standard which were submitted by the International Harvester Company, the Ford Motor Company, the General Motors Corporation, and the American Trucking Association.

The petitioners requested additional time to permit the coordination of otherwise duplicative design, engineering and testing efforts necessary to comply with both the MHT 80 dB noise standard and EPA's nitrogen oxide (NO_x) and particulate emission standards for heavy-duty engines that were promulgated on March 15, 1985 (50 FR 10000).

The Administrator has concluded that the petitioners' request has merit and that the granting of a two-year deferral should significantly reduce duplicative design, engineering and testing, thereby producing economic benefits that should accrue to the public. However, such deferral will result in a delay in health and welfare benefits to that segment of the nation's population that is regularly exposed to truck noise. To reduce the potential near-term loss of benefits, due to the delayed entry into the fleet of the MHT 80 dB truck, the Administrator is concurrently prescribing lower-in-use noise emission limits for 1986 and later model year trucks operated by motor carriers engaged in interstate commerce.

With lowered in-use standards, the deferral of the MHT 80 dB noise standard should have only a minor adverse impact on near-term (1986 through 1988) health and welfare benefits. The more stringent in-use noise emission standards should have a very beneficial effect on long-term health and welfare by significantly restricting the permitted increase (degradation) in the noise emissions of 1986 and later model year trucks.

The legal basis and factual information and conclusions which support promulgation of these regulations were set forth in substantial detail in the Notice of Proposed Rulemaking published in the Federal Register on June 19, 1985 (50 FR 25516).

II. Summary of Comments Received

The Agency received a total of sixteen responses to its proposal to amend the two noise regulations for trucks (50 FR

25516). The comments may be categorized as follows:

1. Six respondents supported the regulatory amendments as proposed.
2. Two supported the amendments with minor (and differing) reservations regarding the proposed reduction of the noise limits for interstate motor carriers (IMC). (The issues addressed are discussed in later paragraphs.)
3. Three respondents expressed support for the two-year deferral of the 80 dB MHT Standard but were silent about the IMC amendment.
4. One expressed opposition to the two-year deferral of the 80 dB MHT Standard (and implied support of the lower IMC noise limits).
5. Two respondents expressed support for lower IMC noise limits (but were silent with regard to the deferral of the MHT standard). One would prefer IMC noise reductions beyond those proposed by the Agency, as well as applying the revised IMC limits to all post-1977 trucks.
6. Two respondents expressed opposition to lowering the IMC noise limits.

In summary, thirteen of the sixteen respondents expressed support for all or part of the proposed amendments and three expressed opposition to one part or another. Of the latter three, two were opposed to tightening the IMC standards and one was opposed to deferring the 80 dB MHT standard.

Substantive issues raised in the various docket responses are discussed below:

1. With respect to the two-year deferral of the 80 dB MHT standard, the only issue raised in opposition was the assertion that a delay of the 80 dB standard may lead to further deterioration of the hearing of Americans.

The Agency's position is that truck noise in the community is a source of annoyance, and may cause speech and sleep interference, but it is not a significant contributor to hearing loss of the general public. Data from the truck noise impact model, summarized in a technical analysis report,² show that about one percent of the population exposed to truck noise is subject to day-night average sound levels ranging from 75 to 85 decibels. Such exposure, if continued over 40 years, would lead to an average increase of less than 10 decibels in hearing threshold at 4000

¹ GVWR—Gross Vehicle Weight Rating.
² Draft Technical Analysis—Alignment of the Interstate Motor Carrier Noise Regulation (with the Medium and Heavy Truck Noise Standard) U.S. Environmental Protection Agency, June 1985 (Docket OPMO-0104, Item #27).

¹ GVWR—Gross Vehicle Weight Rating.

² EPA Docket Number OPMO-0104, Items 1 thru 6.

Hertz, the most sensitive frequency band for the ear. A change of 5 decibels is not considered significant. Since the estimated increase in significant population exposed to truck noise is about two percent for the two-year deferral, the maximum potential effect of that deferral is an increase of two-hundredths of one percent of the exposed population that would potentially experience a just-detectable loss of hearing acuity. Therefore, we do not expect that deferring the MHT 60 dB standard for two years will impose a significant risk of hearing damage. Further, we believe that the long-term benefits of the reduced IMC noise levels will tend to compensate for the short-term loss of benefits due to the two-year deferral of the MHT 60 dB standard.

The remaining substantive issues raised in the docket pertain to the lowering of the IMC noise limits.

2. The respondents in favor of extending the reduced IMC limits to all post-1977 trucks (i.e., those vehicles subject to the 63 dB standard for newly manufactured trucks) contend that such an extension would provide greater health and welfare benefits by decreasing noise exposure of the population.

The Agency agrees that application of the standard to all post-1977 trucks would provide increased benefits.

However, the Agency believes that such extended applicability would impose unexpected and unreasonably high costs on a substantial number of truck users. This could be particularly true for small enterprises that are second and third owners of the post-1977 trucks as these trucks find their way into the used truck market. These purchasers/users, who try to economize by buying used trucks, could be confronted with substantial expenditures to repair or replace noise-control hardware, since the original owners might have performed only that maintenance necessary to meet the prior, less stringent IMC standard. EPA has therefore decided to extend the new IMC standards only to 1986 and later model year trucks, as proposed.

3. Two respondents expressed concern that the reduced IMC noise limits could adversely affect a number of tire dealers and retreaders by discouraging sales of crossbar tires (which are noisier than radial tires). Because the noise contributed by crossbar tires at highway speeds is close to the proposed new IMC limits, one commenter considered the proposed new limits to be unreasonable.

The Agency finds that the truck industry generally has shown a shift to the quieter radial tires, away from crossbar tires. This shift has evolved

over a period of time partly because of the noise requirements, but more particularly because of the greater fuel economy resulting from radial tires. Crossbar tires with "aggressive" tread design are used to provide greater traction for the drive wheels in mud and under wet and snowy road conditions. We believe they will continue to be used for such applications. In light of the gradual shift from crossbar tires, as tempered by their continuing use for specific applications, the reduced IMC limits should result in minimal economic impact on tire dealers and retreaders. Since crossbar tires are only effective on the drive wheels, truck operators can minimize the potential noise contribution of such tires by using them only on drive wheels. Thus, by properly maintaining their trucks and appropriately restricting use of crossbar tires, the Agency believes that operators should be able to comply with the new IMC limits. As indicated in the NPRM, under "Truck Fleet Noise Levels", there is a 4 dB increase allowed for tire noise at speeds over 35 mph; 98 percent of the current fleet already is in compliance with the new limits.

4. One respondent, while supporting lower in-use noise limits, argues that:

a. Such lower limits are not needed to offset losses in benefits due to the deferral of the 60 dB MHT standard because no loss is anticipated;

b. The proposed limits should not apply to model year 1986 and 1987 trucks, as these trucks, manufactured to meet an 63 dB standard, will be required to retain virtually "as-new" noise levels.

c. Truck noise levels increase with mileage but are not related to maintenance. Therefore, the IMC noise limits should permit "reasonable" degradation. To reflect this factor, either the IMC noise limits should be 1 dB higher than proposed, or the proposed limits should apply only to post-1987 trucks (i.e., those manufactured to an 60 dB standard).

The Agency responds as follows:

a. EPA's analysis (Docket OPMO-0104, Item 27) clearly shows that the two-year deferral of the 60 dB MHT standard will result in a loss (albeit a modest one) in health and welfare benefits. The commenter provides no data to support its contention to the contrary. The expectation of such loss is one of the major reasons for reducing the IMC noise limits; the latter action will provide offsetting health and welfare benefits to the public, although the gains will accrue in a different time frame.

b. Data supplied to the Agency in manufacturers' compliance reports show that new trucks manufactured to meet

the 63 dB noise standard average 2 dB or more below the standard, with the vast majority entering the fleet at levels below 62 dB. In addition, an independent study on truck noise degradation⁴ indicates that the noise level increase before overhaul (generally at 100,000 miles) does not exceed one decibel on average. Consequently, EPA expects that model year 1986 and 1987 trucks, if properly maintained, will continue to conform to the new IMC standards.

c. All of the data available to the Agency (including the detailed data in the report referred to by the respondent) show that, for a properly-maintained truck, noise levels increase only very slowly with mileage (less than one-half decibel on average for 100,000 miles). The assertion that truck noise levels are not related to maintenance is supported neither by logic nor by the data. For example, a maintenance action such as replacing a defective muffler will most certainly have an effect on the truck noise level. In the light of the foregoing discussion, as well as the many other factors discussed elsewhere in this preamble, the Agency believes that the reduced IMC levels, as specified here, are appropriate.

5. One respondent commented that the proposed IMC noise limits are too lax, and should be lowered (i.e., made more stringent) by 2 dB. At that level, expected compliance would be about 89-91 percent, justifying reactivation of DOT enforcement activities.

The Agency concedes that more stringent IMC noise limits would provide additional health and welfare benefits, but does not agree that it would be practical to reduce those limits by 2 decibels. Such action would require many truck operators/owners to reduce the noise levels of their vehicles to "below-new" levels, and would allow little or no margin for the eventual degradation that may occur after many years of service for even a well-maintained truck. The Agency believes that the economic impact on a large number of small entity truck users and owners would be unacceptable.

III. Conclusion

The Agency has concluded that the deferral of the MHT 60 dB noise emission standard is in the public interest and should result in cost savings to both truck manufacturers and the public. EPA has further concluded that such deferral should be accompanied by actions to minimize any potential loss of

⁴ Wyle Laboratories report quoted in Docket OPMO-0104, Item Number 42.

health and welfare benefits to the public.

Accordingly, EPA defers the effective date of the MHT 80 dB noise emission standard from January 1, 1980 to January 1, 1988 and concurrently lowers by 3 decibels the IMC noise limits for 1988 and later model year vehicles. The Administrator believes that this latter action should mitigate the potential near-term delay of health and welfare benefits arising from the deferral of the MHT 80 dB noise standard. Further, and more importantly, the revised IMC standards should provide long-term health and welfare benefits that far outweigh their near-term utility by requiring continuance of proper maintenance to ensure vehicle noise control integrity.

IV. Administrative Designation

Under Executive Order 12291, EPA must judge whether a regulation is "major" and therefore subject to the requirement of a Regulatory Impact Analysis. These two concurrent actions are not judged "major" because they do not impose significant new costs above those attributable to the existing medium and heavy truck regulation. Additionally, they are not judged major because:

1. They will not have an annual adverse affect on the economy of \$100 million or more;
2. They will not cause a major increase in costs or prices to consumers, individual industries, Federal, State or local government agencies or geographic regions; and
3. They will not cause significant adverse effects on competition, employment, investment, productivity, innovation, or in the ability of United States enterprises to compete with foreign enterprises in domestic or export markets.

For these same reasons, under the provisions of the Regulatory Flexibility Act, 5 U.S.C. 601 *et seq.*, I hereby certify that these two actions will not have a significant economic impact on a substantial number of small entities.

V. Statutory Authority

These regulatory actions have been prepared under the authority of sections 8(e)(3) and 18(a)(12) of the Noise Control Act, 42 U.S.C. 4917 *et seq.*

List of Subjects

40 CFR Part 202

Motor carrier, Noise control.

40 CFR Part 205

Labeling, Motor vehicles, Noise control, Reporting and recordkeeping requirements.

Dated: December 22, 1985.

Lee M. Thomas,
Administrator.

I. PART 202—MOTOR CARRIERS ENGAGED IN INTERSTATE COMMERCE

PART 205—TRANSPORTATION EQUIPMENT NOISE EMISSION CONTROLS

For reasons set forth in the preamble, the noise emission rules for interstate motor carrier operations at 40 CFR Part 202, and for newly manufactured Medium and Heavy Trucks at 40 CFR Part 205, are amended as follows:

1. The authority citation for Parts 202 and 205 continues to read as follows:

Authority: 42 U.S.C. 4905.

2. Section 202.11 is revised to read as follows:

§ 202.11 Effective Date.

The provisions of Subpart B shall become effective October 15, 1975, except that the provisions of § 202.20(b) and § 202.21(b) of Subpart B shall apply to motor vehicles manufactured during or after the 1980 model year.

3. Section 202.12 is amended by adding paragraphs (f) and (g) as follows:

§ 202.12 Applicability.

(f) The provisions of § 202.20(a) and § 202.21(a) of Subpart B apply only to applicable motor vehicles manufactured prior to the 1980 model year.

(g) The provisions of § 202.20(b) and § 202.21(b) apply to all applicable motor vehicles manufactured during or after the 1980 model year.

4. Section 202.20 is amended by redesignating the introductory paragraph as paragraph (a) and by adding a new paragraph (b) to read as follows:

§ 202.20 Standards for Highway Operations.

(b) No motor carrier subject to these regulations shall operate any motor vehicle of a type to which this regulation is applicable which at any time or under any condition of highway grade, load, acceleration or deceleration generates a sound level in excess of 83 dB(A) measured on an open site with fast meter response at 50 feet from the centerline of lane of travel on highways with speed limits of 35 MPH or less; or 87 dB(A) measured on an open site with fast meter response at 50 feet from the centerline of lane of travel on highways with speed limits of more than 35 MPH.

5. Section 202.21 is amended by redesignating the introductory paragraph as paragraph (a) and by adding a new paragraph (b) to read as follows:

§ 202.21 Standard for Operation under Stationary Test.

(b) No motor carrier subject to these regulations shall operate any motor vehicle of a type to which this regulation is applicable which generates a sound level in excess of 85 dB(A) measured on an open site with fast meter response at 50 feet from the longitudinal centerline of the vehicle, when its engine is accelerated from idla with wide open throttle to governed speed with the vehicle stationary, transmission in neutral, and clutch engaged. This paragraph shall not apply to any vehicle which is not equipped with an engine speed governor.

6. Section 205.52 is amended by revising paragraph (a) to read as follows:

§ 205.52 Vehicle Noise Emission Standards.

(a) Low Speed Noise Emission Standard.

Vehicles which are manufactured after the following effective dates shall be designed, built and equipped so that they will not produce sound emissions in excess of the levels indicated.

Effective date	Level
(1) January 1, 1975	82 dBA.
(2) January 1, 1980	80 dBA.