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**Wednesday  
December 31, 1980**

THIS DOCUMENT DIFFERS FROM THE FEDERAL REGISTER  
NOTICE OF WEDNESDAY, DECEMBER 31, 1980  
(45 FR 86731) ONLY IN THAT, IN THE PREAMBLE,  
TYPOGRAPHICAL ERRORS HAVE BEEN CORRECTED.

**Register  
Federal**

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**Part IV**

**Environmental  
Protection Agency**

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**Noise Emission Standards for  
Transportation Equipment; Additional  
Testing Requirements for Motorcycles  
and Motorcycle Exhaust Systems;  
Proposed Rulemaking**

**ENVIRONMENTAL PROTECTION  
AGENCY**

**40 CFR Part 205**

(N-FRL 1518-1)

**Noise Emission Standards for  
Transportation Equipment; Additional  
Testing Requirement for Motorcycles  
and Motorcycle Exhaust Systems**

**AGENCY:** U.S. Environmental Protection Agency (EPA).

**ACTION:** Notice of Proposed Rulemaking (NPRM).

**SUMMARY:** The Environmental Protection Agency (EPA) proposes to amend the testing requirements for Noise Emission Standards for Motorcycles and Motorcycle Exhaust Systems, published elsewhere in today's Federal Register. The proposed amendments will require manufacturers to remove all easily removable components from their exhaust systems before conducting the tests necessary to show compliance with applicable standards. This action is necessary because the control of motorcycle noise is dependent on exhaust systems retaining their noise suppression performance beyond the time of sale. These amendments are expected to encourage manufacturers to design exhaust systems in ways which will reduce the incidence of tampering by consumers.

**DATE:** The official docket for this proposed rulemaking will remain open for submission of written comments until 4:30 pm, March 31, 1981.

**ADDRESS:** Written comments to the docket should be mailed to the following address: Director, Standards and Regulations Division, Attention: ONAC Docket 61-01 (Motorcycles), ANR-400, U.S. Environmental Protection Agency, Washington, D.C. 20460.

**FOR FURTHER INFORMATION CONTACT:** Mr. Fred Newberry, Project Officer, Standards and Regulations Division (ANR-400), U.S. Environmental Protection Agency, Washington, D.C. 20460; or phone (202) 557-7000.

**SUPPLEMENTARY INFORMATION:** Elsewhere in today's Federal Register, EPA is promulgating Noise Emission Standards for Motorcycles and Motorcycle Exhaust Systems. By establishing these noise standards the Agency expects to reduce the adverse effects of high levels of motorcycle noise on the public's health and welfare. Lowering motorcycle noise levels is expected to result in approximately a 55-75 percent reduction in interference with human activities and a 7-11 percent reduction in the extent and

severity in overall traffic noise impact. However, the success of these final regulations is largely dependent on motorcycle exhaust systems retaining their noise suppression performance beyond the time of sale. Exhaust systems lose their noise attenuation characteristics because of two factors: Degradation of components and simple removal of components. The problem of highly degradable components such as certain "glass packs" in motorcycle exhaust systems is dealt with in the regulation by the requirement that motorcycle exhaust systems when properly used and maintained on Federally-regulated motorcycles must meet applicable noise emission standards over a specified period of time. The Agency plans to deal with the problem of easily removable components in exhaust systems, such as baffles, by proposing these amendments to the regulation.

Several aftermarket manufacturers offer exhaust systems with a variety of removable baffles or adjustable vanes that can be added or decreased in number to obtain the desired results in performance and noise level. Some mufflers are distributed with a kit containing two baffles: One for use in off-road situations which will increase performance (and noise) and a second baffle for quieter street use. Removal of these baffles is usually accomplished by simply removing bolts or screws. Table 4-1 of the "Regulatory Analysis of Noise Emission Regulations for Motorcycles and Motorcycle Exhaust Systems" (EPA Document No. 550/9-80-217) shows the effects of changing exhaust system baffles on performance and noise levels. Exchanging the baffles on one manufacturer's exhaust system increased the noise levels of the test motorcycle by 10 dB.

The effects of completely removing baffles from motorcycle exhaust systems are shown on page 4-25 of the Regulatory Analysis. Removal of these baffles caused the noise level of motorcycles to increase from 15 to 20 dB above the noise levels of the same motorcycle with an original equipment (OEM) exhaust system. By comparison, when the OEM muffler was completely removed, the motorcycle's noise level increased between 16 and 22 dB. Thus, the effects of removing baffles from a muffler can be more significant than removing the muffler itself. This is because a muffler without baffles can act as a megaphone and actually amplify the noise levels emitted by the motorcycle.

Although the removal of baffles from a Federally-regulated motorcycle

exhaust system constitutes a tampering violation under the provisions of the Noise Control Act, the Agency believes that this is and can be expected to remain a major noise problem unless the Agency takes further action. The Agency had considered a program by which exhaust systems would be evaluated on the basis of design characteristics, to discourage the manufacture of motorcycle exhaust systems with easily removable baffles and highly degradable components. (Refer to Issues 3.8 and 0.21 of the Docket Analysis to the NRM.) However, the unfavorable public comments and analyses by the Agency indicated that a better solution for this issue was necessary. Accordingly, the Agency is proposing this amendment to require manufacturers to conduct the testing required to demonstrate compliance to the noise standards with all easily removable components of the exhaust system removed. The Agency believes that this requirement will encourage manufacturers to design exhaust systems which will reduce the incidence of tampering by consumers, or which will comply with applicable standards when easily removable components are removed.

The Agency proposes that these amendments be effective one year after promulgation to allow manufacturers adequate lead time for design and production of complying exhaust systems. A number of manufacturers currently produce replacement exhaust systems with permanent fixtures. Making a baffle a permanent fixture, rather than removable, by welding or other simple means is not expected to require extensive redesign of current exhaust systems nor increase their costs. The following discusses the provisions of the proposed amendments.

1. The Agency proposes to amend § 205.151(a) by adding subparagraph (31) which defines "easily removable component."

2. and 3. The Agency proposes to amend Appendix I-1 and Appendix I-2 by adding a new paragraph, *Vehicle Preparation*. The new paragraph requires motorcycle and motorcycle replacement exhaust system manufacturers to remove all "easily removable components" of exhaust systems before testing their products. Since Appendix I-1 and Appendix I-2 are the EPA test procedures for showing compliance with applicable noise emission standards for EPA Product Verification Testing and Selective Enforcement Audits, the Agency predicts that these manufacturers will be discouraged from designing exhaust

systems with "easily removable components" unless their product can pass the test with these components removed.

Note.—EPA has determined that this action is not a "significant" regulation, and therefore does not require a Regulatory Analysis in accordance with Executive Order 12044.

The Agency is committed by statute and policy to public participation in the decisionmaking process for its environmental regulations. That policy encourages and solicits communications and public comments on all aspects of the proposed amendments to the regulation. These contributions are desired from as many diverse views as possible and when received, such information will be fully analyzed. Necessary changes in these proposed amendments will be made and explained when the amendments are published in final form.

These amendments are proposed under authority of Sections 6 and 13 of the Noise Control Act of 1972, 42 U.S.C., 4905, and 4912.

Dated: December 19, 1980.  
Douglas M. Costle,  
Administrator.

The Environmental Protection Agency (EPA) proposes to amend 40 CFR Part 205 as follows.

#### Subpart D—Motorcycles

1. In §205.151 EPA proposes to amend paragraph (a) by adding subparagraph (31) as follows:

##### §205.151 Definitions.

(a) \* \* \*

(31) "Easily removable component" means any exhaust system part (not to include headerpipes, expansion chambers, or the muffler shell) that can be removed, without causing highly visible damage to the exterior of the exhaust system, by removing bolts, screws, or similar fastening devices, or by shearing spot welds with hammer and chisel, or by other simple means of dislodgement.

2. EPA proposes to amend Appendix I-1 by redesignating paragraphs (c) through (e) as paragraphs (d) through (f), respectively, and by adding a new paragraph (c) as follows:

##### Appendix I-1 Test Procedure for Street and Off-road Motorcycles

(c) *Vehicle Preparation.* All easily removable components of the exhaust system must be removed before testing.

3. EPA proposes to amend Appendix I-2 by redesignating paragraphs (c) through (e) as paragraphs (d) through (f)

respectively, and by adding a new paragraph (c) as follows:

##### Appendix I-2. Test Procedure for Street Motorcycles That Meet the Definition of § 205.151(a)(2)(ii) (Moped-type Street Motorcycles).

(c) *Vehicle Preparation.* All easily removable components of the exhaust system must be removed before testing.

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