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FHWA Procedures for Abatement of Highway Traffic Noise and Construction Noise

Noise regulations are important for transportation officials and project managers when they conduct highway projects using Federal funds. On July 13, 2010, the Federal Highway Administration (FHWA) published a final rulemaking for 23 CFR 772, [Procedures for Abatement of Highway Traffic Noise and Construction Noise](#). This rulemaking becomes effective on July 13, 2011.

FHWA updated the "Highway Traffic Noise Analysis and Abatement Policy and Guidance" ("Policy and Guidance"), dated June 1995, to incorporate clarifications to questions

that have arisen since it was first published. While updating the Policy and Guidance, FHWA determined that certain proposed changes did not meet criteria set forth in the White House Office of Management and Budget's "Final Bulletin for Agency Good Guidance Practices" and recognized that regulatory changes were required.



A barrier is the most common noise abatement measure. (Courtesy of FHWA)

FHWA initiated public comment for the rulemaking by publishing its Notice of Proposed Rulemaking (NPRM) in the Federal Register at 4 FR 47762 on September 17, 2009. The agency received approximately 848 comments from 36 sources, 25 of which were State Departments of Transportation (DOTs), in response to the NPRM, and it used those comments to develop the final rule. Overall, the commenters supported the goals of the proposed rule.

The final rulemaking amends 23 CFR Part 772 to clarify definitions, the applicability of the regulation, analysis requirements, and the use of Federal funds for noise abatement measures. Each highway agency will be required to revise its current noise policy and submit it to FHWA for review and approval to ensure uniform and consistent application nationwide. Transportation agencies that do not comply with noise regulations could risk losing Federal aid for their projects. The regulations also play an important role in the National Environmental Policy Act (NEPA) process; NEPA dictates the Federal authority to evaluate and mitigate adverse environmental effects, including highway traffic and construction noise.

Key Components of the Rulemaking

Changes in Noise Regulations

The rulemaking includes the following key changes to 23 CFR 772:

- Added flexibility for highway agencies in defining parameters for feasible and reasonable noise abatement (see sidebar).
- Incorporation of a noise reduction design goal as a required reasonableness criterion to increase the effectiveness of noise abatement and reduce instances where noise abatement is designed to the extremes of the maximum limit of cost reasonableness or the minimum standard of acoustical feasibility.
- Reorganization of Table 1 "Noise Abatement Criterion," to more appropriately group land uses by impact criteria and to distinguish between interior and exterior evaluation areas.
- Clarification of documentation requirements for highway traffic noise impacts in technical reports and environmental documents.
- Elimination of the Traffic Noise Model Lookup Tables to predict noise levels on Federal or Federal-aid projects.

Key Terms

Feasibility: The combination of acoustical and engineering factors considered in the evaluation of a noise abatement measure.

Reasonableness: The combination of social, economic, and environmental factors considered in the evaluation of a noise abatement measure.

- Prohibition of the use of third-party funding for a Federal or Federal-aid Type I or II project if the noise abatement measure would require the additional funding from the third party to be considered feasible and/or reasonable. Third-party funding is acceptable to make functional enhancements, such as absorptive treatment or aesthetic improvements, to a noise abatement measure already determined feasible and reasonable.

Three-Part Approach to Highway Traffic Noise

The *Highway Traffic Noise Analysis and Abatement Policy and Guidance* describe a three-part approach to highway noise:

- **Noise Compatible Planning:** Local governments should regulate land uses to restrict noise-sensitive uses adjacent to highways.
- **Source Control:** EPA noise regulations set the maximum noise level 50 feet from the centerline of travel at 80 A-weighted decibels.
- **Highway Project Noise Mitigation:** FHWA sets a five-step process for transportation agencies managing highway project planning and design to identify and abate highway noise impacts.

FHWA requires agencies to identify highway traffic noise impacts for all build alternatives in accordance with NEPA. For Type I projects, a traffic noise analysis is required for all build alternatives under detailed study in the NEPA process. If any segment or component of an alternative meets the definition of a Type I project, then the entire alternative is subject to the noise analysis requirements.

For Type I projects with Federal funding, FHWA requires consideration of noise abatement measures and evaluation of these measures for feasibility and reasonableness. The construction of a barrier is the most common abatement measure; other such measures include traffic management, buffer zones, vegetation, building insulation, and highway relocation.

The rulemaking also modifies the definitions of Type I and Type II projects, and adds a new definition for Type III projects:

- The definition of Type I projects has been extended beyond the construction of a new highway, and the expansion or substantial horizontal or vertical alteration of an existing highway, to include the following: the addition or relocation of interchange lanes or ramps, the restriping of existing pavement for the purpose of adding a through-traffic lane, and the addition or substantial alteration of a weigh station, rest stop, ride-share lot, or toll plaza.
- Type II projects remain those for which noise abatement is considered as a retrofit feature on an existing highway. Agencies that opt to engage in Type II projects must develop a Type II program that ranks possible projects and educates local officials and the public. States constructing Type II projects should encourage local communities to enact noise-compatible land-use planning in order to limit future need for noise barriers.
- FHWA created a new category of Type III projects to include those that do not fit the definition of a Type I or II project and do not involve added capacity or the exposure of noise-sensitive land uses to noise sources.

Coordination and Outreach

FHWA initiated an extensive outreach campaign aimed at collaborating with State DOTs and stakeholders in the development of the rulemaking. Through partnership efforts with the Transportation Research Board (TRB) [ADC40](#), the Committee on Transportation-Related Noise and Vibration, FHWA enlisted the early input of State DOTs at multiple points in the guidance process, enabling it to successfully update the rulemaking. Collaborative efforts included extensive discussion and feedback at the ADC40 summer meeting on July 19, 2010, in Denver, Colorado. At this meeting, FHWA staff worked with State DOTs to answer questions and clarify the rulemaking. On the basis of feedback from stakeholders, the rulemaking included changes to Federal-aid eligibility requirements and State DOT compliance, and a more accurate reflection of the needs of transportation planners and engineers.

FHWA held two webinars, on July 30 and August 30 of this year, to educate its staff, State DOTs, and the general public about the final rulemaking and the schedule for revising noise policies. The webinars focused on changes that the final rulemaking set forth since the NPRM. The two webinars reached stakeholders from both the public and private sectors who were seeking additional clarification on the rulemaking's intent and implications. Topics included grandfathering of projects to the pre-final-rule version of 23 CFR 772; reevaluations; definition of Type I projects; analysis of multifamily dwellings and exterior areas of frequent human use; addition of the reasonableness noise-reduction design goal and; modifications to the Table 1 "Noise Abatement Criterion."

State DOT Compliance

The final rulemaking requires each State DOT to update its highway traffic noise policies. State DOTs must submit their revised policies to FHWA for approval by January 13, 2011. To ensure uniformity and consistency in the adherence of the rulemaking, each State's revised noise policy will be reviewed by the FHWA Division Office, the Resource Center, and Headquarters. State DOTs that fail to submit a revised noise policy in accordance with the final rule could face a delay in FHWA's approval of Federal-aid highway projects. FHWA has updated the *Policy and Guidance* document and developed an optional [Draft State Highway Agency Noise Policy Template](#) to assist highway agencies as they update their noise

policies in accordance with the final rulemaking. Both documents are available at FHWA's [Highway Traffic and Construction Noise Regulation and Guidance website](#).

For additional information, please visit the [FHWA Noise website](#).

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Look What's New!

Transportation Enhancements Professional Seminar

The [Transportation Enhancements Professional Seminar](#) will take place on September 16–17, 2010, in Chattanooga, Tennessee. The National Transportation Enhancements Clearinghouse (NTEC) is organizing the seminar under a cooperative agreement with FHWA. This seminar is for State Transportation Enhancement Program managers, FHWA staff, and invited guests from other Federal agencies and national stakeholder organizations.

Guide to Public Participation for Section 106

The Advisory Council on Historic Preservation (ACHP) released an updated edition of its guide to public participation in the review process for Federal projects under Section 106 of the National Historic Preservation Act. The guide includes an overview of the review process and discussions on working with Federal agencies, influencing project outcomes, and following through after agreements are signed. The updated guide is available on the [ACHP website](#).

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