

STANDARDS DEVELOPMENT AS A FACTOR IN MOTOR VEHICLE NOISE ABATEMENT

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The groups who write standards are certainly a factor in the process of vehicle noise reduction through control of the source in that the standards establish measurement and evaluation techniques and also the basis for technical communication.

According to the Society of Automotive Engineers, the definition of a standard is, "The documentation of sound, established, broadly accepted engineering practices." As such, it may take the form of a test procedure or performance requirements. If we consider standards pertaining to product noise and examine them in the context of the Noise Control Act of 1972, these standards (and any resulting regulations) must take into account health and welfare (which is to say, established criteria), available technology, and also the cost of control and its effectiveness.

The use of the term standard implies that there is a consensus of concerned parties, so perhaps we need to identify these concerned parties. They may be groups having rather limited or special interests: environmentalists, trade association members, research academicians, or perhaps just someone who has an ax to grind. On the other hand, they may be a standards writing group that has a broad-base of participants and national and international representation. In these, I would include SAE, the American National Standards Institute (ANSI), and the International Organization for Standardization (ISO).

Who should establish standards? If they

are test procedures, I think that industry and also the professional technical community must be involved to a great extent. If they are performance requirements, I think those same groups must be involved and also socioeconomists and representatives of the public at large, for then we get into the political process.

In the area of politics, we must be mindful of which role we are playing. The problem becomes one of mutual trust, depending on each participant staying within the scope or bounds of his or her expertise. Should participants step out of the accepted roles, their motives may become suspect. The industry, which produces in this case, and the public, which uses, can be more adversely affected by standards that are arbitrarily drafted by government, which regulates, than by those that are established by a technically competent and broadly based group. This latter group is, of course, obligated to provide the rationale, the supporting data, and any other pertinent information to ensure that the decisions reached are not arbitrary.

Another small problem involves those who act outside the standards process, changing a little here or a little there, so that in application standards are not truly standards after all.

The administrator of the Environmental Protection Agency, in a 1974 address to the National Conference on Standards for Environmental Improvement, said: "Standards making is a comprehensive process, yet the final result is rarely the consensus of interest parties. . . . With industry codes, compliance is voluntary, and consensus is probably the more appropriate method. But consensus does not lend itself to timely action, and when compliance is required by law, there is nearly always a deadline to be met. . . . [Industry help is desirable, but] on an arm's length basis [to prevent public suspicion that the agency has] knuckled under to private interest."

There are several points of interest in that quotation. One appropriate to this discussion is the question of timeliness or the response time of the standards system. How fast can the standards system respond under a given set of circumstances?

Fortunately, many standards already exist for measurement of motor vehicle sound levels. These are primary SAE standards; some have been approved by ANSI. At one time, they were used for product development and evaluation. Now they are the basis for regulation, and in some instances consensus has tended to evaporate (or perhaps sublimate, for we have seen little boiling). Regulators, whoever they may be (the user from the regulatory standpoint), must recognize these test methods for what they are and how they relate, or do not relate, to the problem at hand. Test-site measurements of maximum sound level may not be an indicator of levels experienced in community situations, nor do the requirements for these measurements at a test site necessarily apply to roadside monitoring, for example.

Timing really depends on the support given by employers. Industry, government, educational institutes, or whoever is funding those developing standards determine the timetable. The emphasis in industry now seems to be toward the trade-association approach, which I think has less consensus because of its narrow defined interest. In the present political climate, this may be much more practical and expedient. At the same time, I see a trend to broader consensus through the national and international standards activity. Many affected industries and the government are supporting these activities when the business involves international trade.

Recognition of standards development in the private sector as a potential resource is beginning to be evidenced by some governmental activities. Working relations are being established between the European Economic Community or Common Market and various ISO technical committees concerned with development of standards in specific areas such as noise. The intent behind this is to use international consensus standards wherever possible to promote trade without technical barriers. In this country, exploratory effort toward cooperation between ANSI and the Occupational Safety and Health Administration, and also ANSI and EPA, in development of standards has been reported.

In summary, there may be several obstacles in the development and implementation of standards pertinent to motor vehicle noise reduction, perhaps caused by a lack of trust among the participants in the process. However, timing need not be much of a factor. If standards groups are given a voice and a chance to participate, I think they

can be a productive and timely partner in the abatement of traffic noise and vehicle noise.

ACKNOWLEDGMENT

The opinions expressed in this paper are those of the author and do not necessarily represent a position of either the Society of Automotive Engineers or the General Motors Corporation.