

**The NRRs,  
They May be a Changin'**

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## INTRODUCTION

The Noise Reduction Ratings (NRRs) that are emblazoned on all hearing protection devices that we buy and recommend are governed by a 1979 Hearing Protector Labeling Regulation promulgated under the auspices of the Environmental Protection Agency (EPA, 1979). You all know the NRR as the decibel value on hearing protector labels that has become so influential in many companies' choice of hearing protection devices (HPDs). The NRR was intended to be a simplified guide to consumers and professionals that would accurately indicate the amount of noise reduction they might anticipate receiving from an HPD. Higher numbers were supposed to denote greater effectiveness. It seemed a fine idea at the time. History has demonstrated otherwise (Berger, 1993 and 1999).

That elderly rule has many shortcomings, not the least of which is the fact that labeled NRRs bear little resemblance to what groups of users can expect to obtain in actual hearing conservation programs. Unfortunately the EPA's Noise Office has been essentially out of business since shortly after the regulation was promulgated and thus has been unable to consider revising and updating that regulation. Much has been learned in the intervening time frame, and it appears that the rule is about to be revisited. In a surprising move, EPA announced in March that a workshop would be held to present and review data leading to a new proposed rule on hearing protector labeling.

At the outset, you might ask why the EPA is even in the hearing protector labeling business. After all, the Occupational Safety and Health Administration (OSHA) or perhaps the Mine Safety and Health Administration (MSHA) are the government regulatory agencies with which you typically deal for matters of hearing conservation. Although they regulate noise exposures and hearing conservation in the occupational realm, it is the EPA that was empowered by the Congressional Noise Control Act of 1972 to label noise reducing and noise producing devices. It was not until the late 1970s that EPA actually created regulations under this act, and the only noise-reducing devices they ever labeled were HPDs. Shortly thereafter the Noise Office of EPA was defunded and their staff rapidly dwindled to less than one. Less than one you ask? Well, Mr. Ken Feith, the original director of the Noise Office and the man responsible for the original labeling regulation continued with the EPA in the other capacities, but devoted only a portion of his time to the hearing protector regulation.

Now, some 24 years later it has become possible for Mr. Feith to consider updating the regulation. Many in the professional community are surprised, excited, and perhaps pleased at this possibility, since for a number of years numerous problems in the existing regulation have been documented in the literature. Perhaps the most prominent group to discuss the issues was the National Hearing Conservation Association (NHCA)



**Ken Feith of the EPA addressing the Hearing Protector Labeling Workshop, While John Franks from NIOSH looks on.**

Task Force on Hearing Protector Effectiveness, chaired by Dr. Larry Royster. They recommended a number of changes to the EPA label and accompanying information, not the least of which was a change in the basic test procedure from the outdated and withdrawn ANSI standard, S3.19-1974 to Method B of the current standard, S12.6-1997 (Berger and Royster, 1996; Royster, Royster, 1995; ANSI, 1997). Method B is of course the procedure that is intended to provide a more useful indication of the field performance of hearing protectors than does the overly optimistic S3.19 procedure (Berger et al., 1998).

On March 27 and 28, 2003, EPA held a two-day workshop at their headquarters in Washington, DC, to air the issues and obtain recommendations from the stakeholders in the hearing conservation community. The hastily arranged meeting was nevertheless reasonably well attended with approximately 50 professionals in present, representing the American National Standards Institute (ANSI), professional organizations such as ASHA and CAOHC, the U. S. Military, researchers, the National Institute of Occupational Safety and Health (NIOSH), and many of the principal hearing protector manufacturers. The first half day of the meeting consisted of a welcome by Mr. Feith and invited lectures by Alice Suter (author of the CAOHC Manual and architect of the OSHA Hearing Conservation Amendment), John Franks and Bill Murphy from NIOSH, John Casali from Virginia Tech University, and Elliott Berger from Aearo Company, representing the ANSI working group that he chairs, S12/WG11, *Hearing Protector Attenuation and Performance*.

The morning's papers dealt with an overview of the problem, evaluation of the advantages of Method-B testing, statistical analyses of test results from laboratory-based hearing protector measurements and comments on the variability of test data, examination of issues related to labeling electronic and specialty hearing protectors, and suggestions for a new number rating scheme that would be easier and more useful for hearing conservationists and consumers alike. In the afternoon, the Air Force, six hearing protector manufacturers, and the hearing protector manufacturers' trade association (ISEA, the International Safety Equipment Association), presented their viewpoints on the issue. The second day was devoted to morning and afternoon brainstorming sessions in smaller groups, dealing with issues related to hearing protector labeling, developing rating procedures, and testing electronic and specialty devices.

An incredibly wide variety of ideas were put on the table and debated as EPA and NIOSH looked on. The intent was to capture public comments for analysis and review as Mr. Feith works to craft a revised regulation that we were led to believe will definitely appear, although the time frame was uncertain. Following the publication of the newly proposed rule, a period of public comment is expected to be announced, lasting an estimated 60-90 days, after which a final rule should be promulgated. The only hint at time frames that was provided is that the goal is to issue the completed rule by the end of the current Presidential administration.

The new rule could have an important impact on your hearing conservation programs. If indeed the labeling requirement is changed to require testing according to the new Method-B procedure and the recommendations of the NHCA Task Force, you might see numbers on HPD packaging that are more meaningful and could be applied with greater confidence. Stay tuned to the *Update* and the CAOHC website for announcements of the proposed rule, and opportunities for you to respond to this pending hearing conservation related regulation. Additionally you can view the docket and comment directly to the EPA, by visiting [www.epa.gov/edocket/](http://www.epa.gov/edocket/) and using the Quick Search feature to locate Docket Number: OAR-2003-0024.

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