



Making the Commitment to Effective Hearing Conservation

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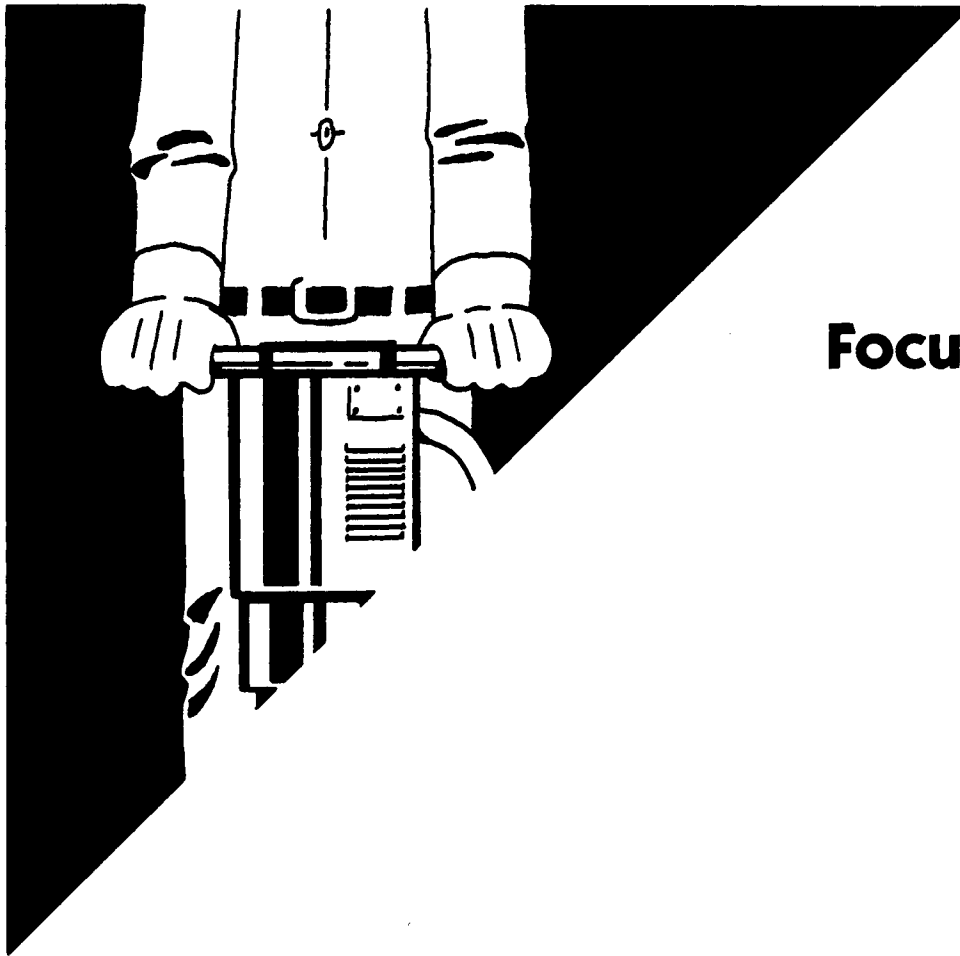
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Focus on . . .

Noise and Hearing Conservation

The three feature articles in this issue deal with solving important problems which routinely occur in the noise and hearing conservation areas. Dr. Dunn and his colleagues have seen Hearing Conservation Programs that have worked and those that have failed. The suggestions given in their article provide many practical ways of assuring a solid, successful program.

Mr. White's article explains how the new OSHA Standards have caused Brookhaven National Laboratory to modify their Noise/Hearing Conservation Program. This article gives specific details on what changes were made and provides a good overview of their total program.

"Buying Quiet" is the focus of Mr. Haag's article. If bids and estimates were requested with specific, acceptable noise levels required for all new equipment, the need for extensive Hearing Conservation Programs and training could be significantly reduced. Wouldn't it be better to be in a "preventive" mode than in a "treatment" mode?

Making the Commitment To Effective Hearing Conservation

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Noise has long been known to cause hearing loss. The ear contains delicate structures that are irreversibly damaged by exposure to high levels of sound. Cumulative exposure to noise can result in a gradual loss of hearing that, while unnoticed at first, will eventually handicap individuals in many social and interpersonal activities and degrade their quality of life. The rapid growth in industrial and recreational noise levels in today's mechanized society and an increase in noise-induced hearing loss have forced us to focus attention on the prevention of hearing loss.

The commercial sector has taken steps to reduce the effects of workplace noise on hearing. Industrial hearing conservation programs have been instrumental in reducing noise-induced hearing loss through comprehensive and coordinated efforts of plant administrators, safety personnel, and employees. Some of the many benefits of an effective hearing conservation program are healthy workers, lower medical/compensation costs, and better union/worker relations. In addition, there is the satisfaction of knowing that your efforts have resulted in a job well done and that the employees are not subject to losing a sense critical for employment and for enjoying life.⁽¹⁾

Industrial hygienists and/or health care providers are often called upon to evaluate or make recommendations regarding hearing conservation programs. A common approach to this task is to review and cite the Federal Regulations concerning hearing conservation programs. Such a review results in identifying the major components of a hearing conservation program, which include noise measurement and control, audiometry, hearing protection, worker education, and adequate documentation. The required components of a hearing conservation program, as listed in Table I, are well known. However, meeting the minimal requirements for a hearing conservation program does not guarantee that the program is effective in protecting the workers against noise-induced hearing loss. It has become apparent that one can no more expect to have an *effective* hearing conservation program by simply imple-

menting these required components than one can expect to bake a cake by tossing eggs, butter, sugar and flour into an oven.⁽²⁾

The specifics of a hearing conservation program depend upon the company size and whether the program is carried out internally or with contracted services.^(2, 3) However, some hearing conservation elements transcend the particulars of a given company. An effective hearing conservation program is the result of careful planning and continuous monitoring to assure that the goal of preventing noise-induced hearing loss is reached. The company administration cannot accomplish this goal alone. It is necessary to have the support of everyone concerned with worker safety. This includes the worker, unions, and trade organizations.

While critical components such as noise surveys, noise control, and audiometric testing must be available to initiate a hearing conservation program, the full commitment of the company administration to the hearing conservation program is necessary to ensure that the program is an effective one.⁽¹⁻⁴⁾ Commitment to effective hearing conservation is vital to obtaining the level of motivation, active participation, and communication necessary on the part of the employees if the program is to be a success. The company's commitment is evidenced by establishing and supporting key policies which promote the hearing conservation program's effectiveness.

As advisors on safety and health, industrial hygienists have a unique opportunity to encourage the company administration to establish policies that will promote effective hearing conservation programs. Examples of important key policies are listed in Table II.

TABLE I. Requisite Components of a Hearing Conservation Program

Noise Survey
Engineering Controls
Administrative Controls
Audiometric Evaluation
Hearing Protectors
Worker Education/Training
Recordkeeping

The company administration should strive for excellence in the hearing conservation program and not fall into the trap of simply meeting the minimal requirements set forth by the federal government. It takes as many resources and almost as much effort to run a mediocre program as it does to have an excellent program that protects the workers. The results obtained from an excellent program fully justify the additional time that is spent.⁽¹⁻³⁾

It is important to integrate the hearing conservation program fully into the total safety program.⁽⁴⁾ There are several benefits to this approach. First, the safety officer can combine several safety programs into the time allotted for educating and motivating workers. This permits delivery of the hearing conservation program message to the workers without losing their interest through repeated or long meetings.

Separate safety programs often result in the worker weighing the relative importance of one program against the other. Often, hearing safety will not be regarded as important as other safety programs that are in place to avoid immediate and observable injuries such as burns, lacerations, or poisoning. There is a natural motivation on everyone's part to avoid pain. Hearing loss occurs without pain, and it is not as immediate or dramatic as some other injuries. It is hard for many people to realize how much more the loss of their hearing will impact on their lives than will the loss of a toe or a burned forearm. A good way to improve safe habits is through motivation and education to stress what is at stake and the worker's right to be protected.

In addition to incorporating the prevention of hearing loss into the general safety program, the worker should be encouraged to use good hearing safety practices away from the job. There is growing evidence that much of a worker's hearing loss can be attributed to non-occupational noise exposures when an effective hearing conservation program reduces the hazard of workplace noise.^(5, 6) Making hearing protection available for off-the-job activities is one way to encourage good hearing safety outside the workplace.

TABLE II. Commitment to Effective Hearing Conservation Through Key Company Policies

- Strive for excellence in the hearing conservation program rather than just meeting minimal requirements.
- Integrate a hearing conservation program into the overall safety program.
- Motivate and educate employees so that safety becomes an integral part of their behavior on and off the job.
- Designate a key person to serve as a contact and implementor of the program.
- Strive for simplification and continuity of operating procedures.
- Review the hearing conservation program regularly and make modifications of operating procedures if safety goals are not attained.

Although an effective hearing conservation program requires the full cooperation and participation of management and workers, there should be one individual (possibly assisted by a support team) who is responsible for assuring the quality of the hearing conservation program.⁽¹⁻⁴⁾ That person must serve as a contact for all groups and a program coordinator. This key contact person must accept the challenge of protecting hearing; this involves listening carefully to individual problems and actively participating in their solutions. The absence of this contact person often leads to the perception that the company is not committed to the hearing conservation program and that the program is really not important.

The key contact person must be selected carefully. He/she should be someone the employees and the plant administration respect. Respect for the key individual is very important since that respect (or the lack of it) is transferred to the Hearing Conservation Program. One should avoid selecting an individual who is due to retire soon or someone who has a record of being unproductive. If the key individual is selected from the aforementioned groups, the other employees may get the message that the job (and the Program) is unimportant and is just used to place workers who do not fit in anywhere else.

The company must allow the key person sufficient time to do the job properly. Nurses, safety officers, and union representatives often make good key personnel because their other activities generally involve contact and interaction with workers or committees. They usually are familiar with the procedure for getting things done within the company and that is a definite asset.

Another policy should be to strive for

simplicity and continuity in the hearing conservation program. For example, areas within the plant should be identified that have potentially hazardous noise levels. These designated areas should be posted as "Hearing Protector Area" (similar to eye protection or hard hat areas), and anyone entering that area must wear hearing protectors no matter how short their stay. This approach simplifies the hearing protector policy for the worker and management. Policies that require hearing protectors only if the person will be in the area long enough to exceed the recommended noise dose make it more difficult for the employees to understand and follow the rules and more difficult for the company administration to monitor the hearing conservation program.

Establishing "Hearing Protector Areas" also permits management to demonstrate their commitment to the hearing conservation program by donning hearing protectors no matter how brief their stay in the area. This reinforces the importance of protecting hearing and underscores managements' determination to be a part of that protection/safety program.⁽¹⁾

The company should have a policy to review the hearing conservation program at regular intervals to determine if the desired results are being obtained.⁽³⁾ The review should involve an evaluation of the audiometric data to see if hearing losses are occurring and a check of the noise levels to see if changes in equipment, manufacturing procedures or deterioration of machinery have resulted in an increase in the environmental noise levels. The major way to determine the effectiveness of a hearing conservation program is through these periodic reviews. The purpose of the periodic review is to identify problems and

take corrective action. Consequently, there should also be a policy which requires careful modification of a program which does not adequately protect the employees. Modifications of the hearing conservation program should be made only when the source of the problem has been clearly identified. Plans for remedial action require the input from consultants and all levels of the company workforce.

There are many intangibles that are important to the success of a hearing conservation program. Intangibles such as commitment, motivation, continuity, etc., should not be overlooked when establishing or monitoring a hearing conservation program. A sincere commitment by management to the key policies needed for a top quality safety program, along with basic hearing conservation practices, will usually result in these intangibles being successfully incorporated into the hearing conservation program.

Industrial hygienists can be instrumental in informing company officials of the need to address these intangibles as well as the fundamental hearing conservation program components listed in the regulations. The effort will prove worthwhile and rewarding for everyone involved.

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