Chair's Message
by Peter Weber, MD MBA FACS, Representative of the American Academy of Otolaryngology Head and Neck Surgery

Hi! I hope that you find our Winter issue to be quite informative in addressing topics that you may not have considered in the past. First, I would like to take this opportunity to bring to your attention that Noise Awareness Day will be Wednesday, April 25, 2001. As many of you know, this day is set aside to enhance public and worker awareness of noise and its effect on hearing loss. Materials and posters can easily be obtained by visiting CAOHC's web site www.caohc.org. Click on the red, flashing button or you can access www.lth.org/noise. This is an important day and I hope that you will all participate at your workplace as well as in your daily lives.

One of the most interesting articles that I invite you to read is that on cerumen management by Dr. Browson. He explains the importance that earwax plays in the ear; while also discussing that when too much wax is found, proper assessment of hearing levels may be compromised. Browson discusses the role of the OHC in this matter. It is easy to imagine that it is important to instruct employees that one should never use cotton swabs to remove wax from the ear. This is knowledge that applies to you, too. Cotton swabs may push wax deeper into the canal and closer to the eardrum, and may abrade the delicate lining of the canal; such abrasion may result in serious infection.

Also in this issue, you will find the NHCA brochure on firearms and how you can aid and should protect your hearing when using such devices. It also discusses the ramifications if one does not use hearing protection in the use of firearms.

Dr. Endrich elucidates the importance of a hearing conservation program for employers in order to protect them from workers' compensation fraud. This is an unusual article and one that you can use to show your employer when presenting the importance of setting up, or continuing, a hearing conservation program.

Finally, Ms. Cooper starts the first in a series of articles on noise control techniques that can be directly applied in your own programs. You'll find that this issue is full of important and useful information, and one that you may want to keep for reference in the future.

Considering an Engineered Noise Control Solution
By Beth A. Cooper, PE INCE, Bc Cert. Representative of the Institute of Noise Control Engineering

Part 1 in a series on engineering approaches to reducing noise exposure.

As an OHC, your days may be filled with audiometric testing and employee training. You may also find it within your job description to solve problems associated with high noise levels in your workplace. Perhaps you are fortunate enough to work as part of a hearing conservation team that includes a noise control engineer who is able to recommend, develop and implement engineered controls that reduce employee noise exposure. But what if YOU are the hearing conservation program? Even if you have other professional resources at your disposal, you may be responsible for managing those resources and making overall program decisions. In any case, an understanding of fundamental noise control concepts and techniques will be helpful as you approach the following tasks:

- identify specific problems that would be realistic candidates for successful engineered noise control solutions;
- anticipate, understand and be able to evaluate the range of possible solution approaches recommended by a noise control professional;
- advocate for the funds necessary to implement the recommended changes;
- properly make use of and maintain the engineered noise controls; and
- avoid worsening the problem, either before or after the controls are implemented, by making changes to the process, equipment or work area that increase the noise level and/or employee noise exposure.

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New Appointments to CAOHC Council

We are pleased to announce the appointment of Dray S. Rink, MS RN COR-N, to the CAOHC Council. Ms. Rink attended her first CAOHC Council meeting in Rossmoor, CA on October 3, 2000 as a representative for the American Association of Occupational Health Nurses (AAOHN), replacing Constance Tattman.

Ms. Rink obtained her Masters degree from Colorado State University in Health Policy and Planning. She holds certification by the American Board of Occupational Health Nurses as an Occupational Health Nurse Specialist. She is also ACOHC certified as an Occupational Hearing Conservationist. She attended the ACOHC Council.

Ms. Rink is currently employed by HTI, Inc. in Ohio and assists businesses and industries by developing and providing services to assist employers in promoting employee health, reducing medical treatment and reducing health care costs.

The CAOHC Council is also pleased to announce that Richard L. Steckin, M.S. CCDA will represent the American Speech-Language-Hearing Association (ASHA) on the Council effective November 2000. Mr. Steckin replaces Susan Meggison who has recently completed a 10-year term on the Council. (Ms. Meggison remains on the Council in an Ex-Officio capacity throughout 2001 to complete her term as Immediate Past Chair.)

Mr. Steckin is the founder and president of Eversound Corp in New Jersey and is a graduate of Florida State University, with a Masters of Audiology degree. Steckin currently serves as Chair of the NHCIA Committee on Hearing Data Acquisition and has been a CAOHC Council Director since 1974. He will be attending his first Council meeting in Salt Lake City, UT on March 8, 2001.

The CAOHC Council welcomes these two new representatives on the Council and looks forward to working with them on CAOHC projects and objectives.

NHCA 26th Annual Conference

The National Hearing Conservation Association (NHCA) will hold its 26th annual conference in Raleigh-Durham, North Carolina, February 22-24, 2001. Full day workshops will be held on such topics as: Accuracy Selection of FFT’s—Practical Guidelines for the Hearing Conservationist, Noise Induced Hearing Loss and the Law, and Critical Problems from Noise. Friday and Saturday presentations include: Hearing Conservation in Construction: Noise in Mining; and Keeping Noise-Induced Hearing Loss in the Public Eye.

Visit the exhibition to see the latest in hearing conservation products and services. Also included as part of the conference will be the West Seminar and the HDST Test. For further information contact the NHCA office at (303) 224-9222, e-mail to info@nhca.org or visit our website at www.hearingconservation.com.

COUNCIL MEETING & COURSE DIRECTOR WORKSHOP • SPRING 2001

The Spring 2001 Council meeting has been scheduled for Thursday, March 8, 2001 in Salt Lake City, Utah at the Embassy Suites Hotel. This meeting will be followed on Friday, March 9, 2001 with a Course Director Workshop. This workshop is for applicants completing the requirements to become certified as a Course Director or CDIs wishing to re-certify via the workshop method. Contact Barbara Lechter at 414-276-5338 on how to become a Course Director or reference the CAOHC web site at www.caohc.org.
Old earwax is constantly being transported from the ear canal to the ear opening where it usually dries, flakes, and falls out.

When an individual has wax blocked up against the ear drum, it is often because he has been poking his ear with things like cotton-tipped applicators, bobby pins, or twisted napkin corners. Such objects only serve as ramrods to push the wax in deeper. Also, the skin of the ear canal and ear drum is very thin and fragile and is easily injured. Continued rubbing of the ear canal with a cotton-tipped applicator can damage the skin and promote infection. Individuals who wear hearing aids may also develop an accumulation of earwax because the hearing aid or earmold prevents the normal migration of the wax to the outside. Individuals who wear such devices should always have their health care provider inspect their ear canals for accumulation of earwax.

When wax has accumulated so much that it blocks the ear canal (and reduces hearing), the individual's audiologist or physician may have to wash it out, vacuum it with suction devices, or remove it with special instruments. The professional is more likely to use a solution of peroxide to remove the earwax. Available products include prescription only (such as Cerumenex and over-the-counter products (OTC) such as Debex, or Merine Ear Drops. Audiology's Choice (a) through audiologists and some OTC Debex or Merine), or sterile hydrogen peroxide (3%). While the OTC drops are not as strong as the prescription earwax softeners, they are effective for many individuals, and are less likely to cause irritation or allergic reaction.

The OHC's role is primarily to train the OHCW to recognize potential earwax accumulation from the otoscopic exam. Under the professional supervisor's guidance and with careful review of central terms, the OHC may recommend or use of earwax removal techniques that facilitate cerumen removal. In the absence of a professional for the purposes of cerumen management, the presence of tympanometry (TOM) drops, cerumen irrigation in the only helping ear or any universal complications for earwax management by the individual is significant. Such cases should be referred to the individual's physician for evaluation. Relative contribute levels should also suggest need for referral to an audiologist's physician or the physician includes recent otoscopy, history and physical exam, and other bedside tests, diabetes mellitus, AID, or any other condition that would put the individual at risk.

The OHC may wish to provide to the individual with suggested instructions for use of over-the-counter ear drops, as in the attached box.

Suggested Use of OTC Ear Drops...
Attentional Professional Supervisors of Audiometric Testing Programs: Seminars at AOHC

The OSHA Noise Standard, 29CFR. 1910.95, specifically states that "the employee shall administer a continuing, effective hearing conservation program." As part of that effort, both OSHA and MSDS require that technicians performing audiometric testing be responsible to an audiologist or a physician (i.e., "Professional Supervisor"). The professional must also review audiograms. CAOHC is offering: A one-day seminar at the American Occupational Health Conference (AOHC) on Tuesday, April 24, 2001 entitled: The Role and Qualifications of the Professional Supervisor in the Occupational Hearing Conservation Program. Seminar #6201

Upon completion, participants will be able to:

- Define the role of the professional supervisor in an occupational hearing conservation program.
- Explain the standards and regulations that apply to hearing conservation programs.
- Discuss problem audiograms, standard threshold shifts, and the conceptual elements of a quality hearing conservation program.

The seminar will cover basic knowledge of acoustics and sound, physics, anatomy and physiology of normal human hearing and basic audiometry. Standards and regulations that apply to hearing conservation programs will be presented. The medical-legal aspects of noise-induced hearing loss will be identified. This seminar will be conducted by CAOHC Council members Peter Weber, MD FACS, Myrna Stephens, PhD CCC-A, Michael Holthouser, MD MPH, and Theresa Schatz, PhD CCC-A.

In addition, a half-day practical seminar in the use of hearing conservation tools and methods seminar #2312 will be offered on Monday, April 23, 2001. This practical will familiarize participants with the tools and methods of hearing conservation program (i.e., audiometer, noise level meter, octave band analyzer, dosimeter).

You may register for either of these seminars by referencing Postgraduate Seminar #6201 for the the Role & Qualifications of the Professional Supervisor or #2312 for the half-day practical by phoning 847/881-1800 or faxing 847/881-9265. You may also access ACMC's web site at http://www.acmc.org

CAOHC Chair
Interviewed!

Check out the website www.AudiologyOnline.com to read an interview with our CAOHC Council Chair, Peter Weber, MD FACS. Dr. Weber was interviewed on October 27, 2000.

CAOHC Exhibiting at AOHC

The American Occupational Health Conference (AOHC) will be held in San Francisco, CA April 24-26, 2001 at the Moscone Convention Center. This meeting of the American Association of Occupational Health Nurses and the American College of Occupational & Environmental Medicine is the premier meeting for occupational health nurses, physicians and allied health professionals. Over 4,700 attendees are expected and over 50% are occupational health nurses.

CAOHC has been exhibiting at this conference for several years and will be there again in April at Booth #104.

Barbara Lechter, of the CAOHC Executive Staff will be there, too... stop by and introduce yourself, we always look forward to meeting you personally!

Health Nurses Partner with CAOHC at AOHC

The American Association of Occupational Health Nurses (AAOHN) invited CAOHC to present a joint seminar with the American College of Environmental Medicine (ACOEM) at the 2001 American Occupational Health Conference (AOHC) in San Francisco, CA.

The title of the session is "Evaluating and Improving the Effectiveness of Your Hearing Conservation Program." This session will be presented on Sunday, April 22, 2001, 1:40 PM at the Moscone Convention Center. This seminar is designed to assist participants in evaluating and improving their hearing conservation programs. Participants identify weaknesses and methods for improvement. The essentials of the hearing conservation program are presented along with ways in which each area can be made more effective. Case studies are presented to demonstrate various types of pathology and the appropriate referral processes. The faculty addresses problems specific to the participants.

Objectives include:

- Describe the components of an effective hearing conservation program to determine whether their program merits attention.
- Describe ways of improving key areas of a hearing conservation program including audiometric testing, hearing protection, employee education, record keeping, and referral process.
- Discuss selection of members of an effective hearing conservation team.
- Explain how to develop methods for solving problems specific to hearing conservation programs.

This seminar will be co-sponsored by CAOHC Council members Peter Weber, MD FACS, Myrna Stephens, PhD CCC-A, Michael Holthouser, MD MPH, and Theresa Schatz, PhD CCC-A.

To register for this seminar #909, please contact AOHC, PO Box 71732, Chicago, IL 60601-1732, phone 847/881-1800 or fax 847/881-9263. You may also access ACOEM's web site at http://www.accem.org
Noise is All Around and Your Ears Can’t Tell the Difference

Hearing loss, in most cases, is the result of a lifetime of accumulation of exposure to noise from various sources. Although the damage caused by exposure to gunfire may be different from that caused by exposure to continuous noise (see “What Makes Firearm Noise So Dangerous”, inside), the end result is the same — loss of your ability to hear. The total of all exposure to all hazardous noise adds up to the result in your ability — or lack of ability — to hear.

Exposure to continuous noise for long periods of time, like in a factory or on the farm, can damage hearing, too. Here are a couple of ways to determine whether the noise you are in, be it in your car, on the job, from using power tools at home, or in a nightclub, could result in damage to your hearing.

- **If you have to raise your voice to be heard at a distance of three feet or so, sound levels are probably approaching 85 decibels or db. That’s about the level where regular long-term exposure can result in permanent damage.**

- **Tinnitus or ringing in the ears is a sign of potential damage. If you hear a ringing or rushing sound in your ears after leaving a noisy environment, it was probably too loud.**

- **Temporary Threshold Shift, or TTS is a temporary loss of hearing. After exposure to loud noise, you may lose some hearing, then recover after a “rest period” in quiet. If conversation sounds muffled or unclear after leaving a noisy area, or if you have to turn up the radio in your car to make it sound the same as before, it’s likely that you overloaded your hearing system.**

Shooting is at Risk

Recreational shooting for hunting or sport purposes has become an increasingly popular leisure-time activity. In the US, as many as 60 million people engage in shooting activities, with firearm use ranging from a few shots per year for the casual hunter to 10,000 or more shots per year for avid competitions shooters.

Although most serious shooters will use appropriate hearing protection devices (HPDs) during extended sessions on the firing range, many do not protect their hearing during shorter sessions. In addition, since the ability to hear all environmental sounds is paramount in hunting activities, few individuals are willing to use HPDs in the field.

Too often, exposure to firearm noise results in serious, irreversible harm to the shooter’s hearing. This Practical Guide is intended to provide information to shooters and the hearing health professionals who help them so that they will understand the hazards of firearm noise and the actions they can take to protect their hearing.

For more information, contact:
National Hearing Conservation Association
9 Espanola Avenue, Suite 2000
Denver, CO 80206
303.234.9025 (O), 303.776.8112 (F)
info@hearingconservation.org (E-mail)
http://www.hearingconservation.org (Website)

For the latest and most current information, please look at the National Hearing Conservation Association website.

The mission of the National Hearing Conservation Association is to prevent hearing loss due to noise and other environmental factors in all sectors of society.
What Can I Do

My Family, My Understanding

Why Can't I Understand My Family?

When I was growing up, I always thought my family was...
Hearing Conservation Program Protects Employer from Racketeering

by John Erdreich, Ph.D.
Representative of the Institute of Noise Control Engineering

It wasn't quite Murder on the Orient Express, but one afternoon we received a call to investigate apparent hearing losses that had suddenly developed at two newspaper plants. It seemed that there was a sudden rash of severe hearing loss in the newspaper delivery drivers.

This created concern among the lawyers processing the compensation claims for the employer. Were the noise levels the drivers were exposed to so high to cause permanent, compensable loss of hearing? My firm was asked to investigate and to determine employee exposures. The details of the legal complaint read like a detective novel. See: United States District Court for the Southern District of New York [93 Civ. 7222 (LAP)].

The primary purpose of an effective hearing conservation program is to protect employee's hearing. Of course, the first phase of an effective hearing conservation program is to document the workplace acoustical environment. But the newspaper delivery drivers didn't spend time in the places where high noise exposure was expected. They would arrive at work, tramvest some business in an office, wait near conveyors where newspapers were bundled and loaded on their trucks, and then drive throughout the metropolitan area delivering bundles of papers. An exposure survey for these employees had never been carried out since it was thought that their exposures were under 85 dBA TWA.

There are other purposes for a hearing conservation program. My firm has maintained that the data developed in a properly conducted hearing conservation program has at least two benefits to the employer. First, it is crucial to the protection of employee hearing and the early identification of potentially problematic noise exposures. Second, audiology-conducted by knowledgeable technicians under the supervision of a professional experienced in the evaluation of the industrial patient may serve to support the defense of claims for occupationally caused noise-induced hearing loss.

Dose Response

We recognize that over the past forty years rigorous, scientifically defensible dose/response relations have been established between noise exposure and the development of threshold deficits. These relationships have been widely published as International (ISO 1999-1990) and National (ANSI S1.4-1996) Standards. These documents provide a basis on which to compare the hearing thresholds exhibited by an individual exposed to noise with the hearing thresholds of a large population of individuals similarly exposed. Furthermore, because the standards are based on a large body of data, it is possible to predict the hearing thresholds of individuals with a range of sensitivities to the effects of noise exposure.

Keep in mind, however, that the standards do not predict the thresholds of any particular noise-exposed worker. They only permit comparison between an individual and a group.

An example of the data provided in the standards is shown in the first figure. The figure shows the expected hearing threshold for a male, age 50, exposed to 90 dBA TWA for 20 and 50 years. The curves shown represent the population of average susceptibility to noise and the most sensitive 10 percent of the population.

We also know, from the age adjustment tables in the OSHA Hearing Conservation Amendment, that as a population ages, its hearing, on average, becomes poorer. This suggests that if audiograms from a large group of workers of widely varying ages were compared, we should expect to find a range of hearing thresholds. It follows that if the workers were exposed to levels of noise insufficient to cause hearing loss, workers of different ages should exhibit different audiometric profiles. Any departure from these findings is cause for concern.

Expected Thresholds for Male Age 50 with 20, and 30 Years Exposure at 90 dBA TWA

Initial Investigation

Measurements of sound in the areas where the employees transacted their business and waited for the truck loading to be completed revealed levels in the mid-to-high 70-dBA range. The employees spend approximately two hours at this location before leaving on deliveries.

The relatively low level of the noise exposure prompted us to ask for a sample of audiograms of the claimants for further analysis. As the noise exposures were so low, we wanted to know what thresholds were shown by some of the claimants. The attorneys provided a sample of eighty audiograms.

Insufficient Noise Levels: Comparison of Hearing Threshold with ANSI Standards

The second figure (shown below) indicates a comparison of the threshold of an employee in this case with the thresholds predicted for the population by the standards (named previously in this article). We found that the hearing levels claimed by the employee did not all show a typical 2-kHz notch pattern for SNHL, and exhibited losses which were substantially more severe than would be predicted for the measured noise exposures.

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Distribution of Hearing Levels

A further discrepancy was found in the hearing thresholds themselves. The employees ranged in age from 20 years to over 70 years old. All the hearing thresholds, however, fell within approximately 10 dB(A) of one another. For this range of ages, considering different sensitivities of individuals to noise and different rates of development of presbycusis, a range of 40 dB(A) would be more typical.

Miraculous Recoveries

These findings were very suspicious. As a result, the attorneys investigated further by having several of the claimants examined by an audiologist who was experienced in dealing with evaluation of claimants for compensation of NIHL (noise-induced hearing loss). They also found that the drivers had recently undergone medical tests to re-qualify for their commercial driver's license tests that included audiometric testing. All had passed the medical tests.

1. In many cases, after comparing the results of the audiogram with the results of the tests referred to above, and noting they were not consistent, the audiologists then informed the claimants of the inconsistency and explained to them that the claimants' initial audiograms could not be accurate. In a number of cases, the claimants then responded accurately during a subsequent audiogram, the results of which revealed that those claimants do not have a binural loss of hearing.

The Final Result

One test case was brought before a Worker Compensation Board Administrative Law judge for adjudication. After many hours of testimony the judge dismissed not only the test case, he also dismissed the remaining claims finding them fraudulent. The legal team had uncovered numerous irregularities in the claims. The employer filed a civil action under the Racketeering in Corrupt Organizations (RICO) law against the employees, their attorney, and the physician who examined them. Under the RICO Act, a successful plaintiff may recover treble damages which is the relief sought in this action. "Plaintiffs have suffered damages to date to be determined but believed to exceed $3 million." A direct and proximate result of the defendants' unlawful conduct? See: United States District Court for the Southern District of New York [93 Civ. 7222 (LAP)].

State of Oregon OSHA Changes

Position on Recordability of Occupational Hearing Loss

OSHA's Recordability of occupational hearing loss, and application of age corrections, have been confusing and contentious issues since the hearing conservation amendment was promulgated in 1983. Recordability (for purposes of tracking a program) has been treated separately by OSHA from STS determinations. The following memorandum from Oregon OSHA clarifies and changes their position on age corrections. Please note: this memorandum applies to the state of Oregon ONLY, this is not a Federal OSHA memo.

This memorandum from the Oregon OSHA office is strictly for record-keeping purposes for logging Occupational Hearing Loss on the OSHA 200 form. In the early 1990's we adopted most of the Federal Noise standard with a few exceptions. One exception was not allowing the use of presbycusis charts (age correction charts) when evaluating an employee's yearly hearing test to determine if a Standard Threshold Shift had occurred. The practice of not using the charts for this STS determination is supported by NIOSH. Since the annual test is not to determine the cause of the hearing loss but rather screen and refer problems to a specialist, educate, refer with hearing protection and motivate employees, we are using a conservative positive method to ensure employee protection.

In the past, we did not allow the use of presbycusis charts, we did not allow the use of them when determining recordability of hearing loss on the OSHA 200 log. We now will allow the use of the age correction charts only when determining what cases should be recorded on the OSHA 200 log.

The rationale for allowing this is that the Federal rule allows the use of the charts for both determining the STS as defined in the rule and for logging the hearing loss on the OSHA 200. Oregon OSHA does not allow the charts for either. This inconsistency will result in our not allowing use of the charts for either.

State of Oregon OSHA Changes

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Suggested Use of OTIC Ear Drops, . . . continued from the GHC Corner page 3

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Suggested Use of OTIC Ear Drops or Ear Wax Removal Aid

1. For use in the EAR ONLY. Do not use if the individual has a history of perforation of the ear drum, including myringotomy or tympanostomy tubes or prior ear surgery unless directed by a health care provider. Use in children under the age of 12 years, children recovering from middle or inner ear infection, otitis media, or any other condition that would put the individual at risk.

2. Adults and children over 12 years of age: tilt head sideways and place 5-10 drops into the ear (tip of applicator bottle should not enter ear canal).

3. Empty the device for several minutes by keeping head tilted or by placing cotton in the outer part of the ear canal.

4. Use 2 times daily for 3-4 days if needed, or as directed by your doctor.

5. Any excess wax remaining after use of the drops, consult a doctor or audiologist.

6. Children under age 12 should consult a doctor.

7. Do not use for more than 4 days unless directed by a doctor.

8. Avoid contact with the eyes.

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Engineered Noise Control Solution

Since noise control engineering should be a part of any effective corporate hearing conservation program, basic familiarity with noise control concepts and techniques will be helpful to all OHCs, whether in an corporate or plant setting. This article, which is the first in a series on engineering approaches to reducing occupational noise exposure, will discuss the benefits of engineered noise control procedures and how a noise control engineer can assess any noise exposure problem prior to installing a noise control system. The remainder of the series will cover concepts that are critical to the solution of every noise control problem: the three general approaches to engineered noise controls and the basic properties of acoustical materials. Specific examples of each type of approach will be discussed, including "do-it-yourself" control solutions that every OHC can easily implement to fix some very common noise exposure problems.

Within the context of the hearing conservation program, engineered noise controls should have a status equal to that of audiometric testing, employee training and the wearing of personal protective equipment. Although engineered noise controls are often perceived as being a peripheral element of the hearing conservation program, in fact, well-designed engineered controls offer benefits beyond what can be achieved with even the most comprehensive and well-managed implementation of non-engineered approaches. The aggressive implementation of engineered noise control solutions can be the following benefits:

- Reduced noise exposure as well as regulatory compliance;
- Reduced reliance on employee participation in other program elements (e.g., audiometric testing and use of personal hearing protection), in a process that OHCs may follow to assess the hearing loss prevention (or regulatory compliance);
- Improved productivity, speech communication, concentration and safety;
- Removal of noise-related operational restrictions that limit the hours of operation under the total duration of operation, including those imposed for reasons other than hearing conservation (e.g., community noise issues).

When evaluating noise exposure problems as potential candidates for an engineered noise control solution, the above factors can serve as a checklist to help the OHC determine, for each problem, whether an engineered solution will be more cost-effective than other alternatives. In particular, determining which of the above factors are relevant (and which are the most important) issues in each situation is an important first step in assessing and selecting the most effective noise control approach for that particular situation. For instance, some approaches will reduce employee noise exposure, but may not necessarily reduce the amount of noise that is generated by the equipment or process. Such an approach may be

quite effective in one situation while not adequate in other cases.

This assessment should take into account considerations such as:

- The number of employees who work in the noisy area;
- The specific tasks, locations, and movement within the work area that is required in order to perform the job;
- The amount of time in the noisy area that is associated with the above activity;
- Whether employees are expected to communicate with each other or use telephones while working in the noisy environment;
- The nature and frequency of other auditory signals that employees must be able to hear clearly (e.g., paging, alarms, etc.);
- The existence and location of any nearby quiet spaces where employees may rest, perform other tasks and communicate with each other or use the telephone;
- The size and physical characteristics of the (noisy) building or room where the work activity takes place;
- Whether the noise is adequately contained in the work area or also poses a hazard (or an annoyance) for passersby, adjacent work areas or the community;
- The nature of the equipment or process that is generating the noise; and
- The characteristics of the noise itself (e.g., sound level, time characteristics, frequency spectrum).

The last item on the list is clearly the responsibility of the noise control engineer, who will undoubtedly acquire detailed noise measurements at the outset of the project. The recommendations he or she makes will depend as much on the information the OHC provides about the first nine items as on the characteristics of the noise. The OHC will be best prepared to discuss the noise solution options and the relative benefits of each solution after spending some time researching and documenting all of the items on the above list.

An essential part of the OHC's preparation for initiating a noise control project is to thoroughly research the exposed employees and their management. The process of developing an engineered noise control solution is really a collaborative activity that relies heavily on the support and contribution of the employees who will be expected to work with or near the particular noise control equipment after it is installed. The installed controls will be most effective, and the process by which those effective controls are developed will be most valuable, if the input of the exposed employees is sought and given a high priority early on, before a solution approach is selected. Ideally, the exposed employees and their management should be brought into the planning activity prior to involving a noise control engineer. It is important that the noise-generating equipment and the work process be well understood, along with any other factors that may constrain the selection, design or implementation of the noise control solution. If the expectations and limitations of the engineered controls are agreed to beforehand, it is more likely that the controls will be functional, compatible with the operation and acceptable to the employees whom must accommodate and maintain those controls.

(to be continued)
International Noise Awareness Day

April 25, 2001 will mark the 6th annual International Noise Awareness Day, sponsored by the League for the Hard of Hearing. What started out as a local effort to address the increasing noise levels in New York City, quickly became an international event with participants in every state in the U.S. as well as 39 foreign countries.

The goal of International Noise Awareness Day remains the same since its inception - to educate the public about the harmful effects of noise on hearing, health and the quality of life. The League for the Hard of Hearing distributes packets of information to all participants who then coordinate activities in their places of business, schools and local communities.高达 involvement has been extensive with coverage in national and local television, radio and print outlets.

With the goal of the Noise Center at the League for the Hard of Hearing, like that of CAOHC, is to inform the public about the hazards of noise all year round, International Noise Awareness provides the opportunity to join forces with other hearing conservationsists and anti-noise activists worldwide to not only raise awareness about the dangers of noise, but offer solutions for protection against noise.

The Council for Accreditation in Occupational Hearing Conservation has been an active participant in International Noise Awareness Day for several years. CAOHC has publicized INAD in its newsletter UPDATE, resulting in numerous companies across the country offering educational programs on hearing conservation to their employees on INAD.

What you can do on International Noise Awareness Day;

A variety of activities are planned for International Noise Awareness Day. Among the many activities planned:

Free Hearing Screenings - Private audiologists and speech and hearing clinics will help to celebrate International Noise Awareness Day by providing free hearing screenings to the public. (Check www.hhs.org/ noise for locations)

Dissemination of Hearing Protection - Hearing protection will be distributed on International Noise Awareness Day at hearing screenings, town meetings, various places of business and college campuses.

Town meetings to “Sound Off on Noise” - Town meetings will be scheduled in various communities on International Noise Awareness Day to provide a forum for community residents to voice their concerns about noise. Local police departments, representatives from the Department of Environmental Protection and local politicians will be invited to attend these meetings.

Publicity - Participants in International Noise Awareness Day will hold press conferences in their local areas. Press releases and public service announcements on television and radio stations will involve the media and help to promote the important message that noise harms.

City/State Proclamations - Mayoral and gubernatorial Proclamations in celebration of International Noise Awareness Day will be obtained.

Community Outreach - Develop Your Own Anti-Noise Group and speak out about the harmful effects of noise in your community.

Analyse - or develop! your local noise codes and follow the Noise Center’s steps in handling a noise complaint.

Letter Writing Campaign - Participate in the Noise Center’s Letter Writing Campaign to re-establish the Environmental Protection Agency’s Office of Noise Abatement & Control.

Participating in International Noise Awareness Day is easy. Simply contact the Noise Center at the League for the Hard of Hearing at 888-NOISE-88 or by email to nominees@hard.com and request an INAD packet of materials. Use INAD as an opportunity to educate the people with whom you work about ways to protect their hearing at work, at home and in recreational activities. Consider visiting a local school and providing a lesson on noise and hearing. Hang posters in schools, work and stores. And, contact your local media.

On International Noise Awareness Day we can come together and speak up on noise - to the ultimate success of all our efforts, across our many fields and disciplines.

State of Oregon OSHA...

continued from page 8

in high and remote noise interference rates for Oregon, since some of the recorded cases might be the result of aging. The level of protection for the employee will not be affected if we allow the use of the charts only in the recording of the claims.

ACTION

- The rule will remain unchanged. The preexisting charts can’t be used to determine if a standard threshold shift occurred, as defined by the rule.

- The use of the preexisting charts can be used when determining if a case is recordable.

(This macro prepared by Marilyn Schuster, Manager of Standards and Technical Services, Oregon Occupational Safety & Health Division and distributed in Oregon state OSHA offices August 4, 2003.)

Course Director Workshops

Scheduled for 2001

If you are interested in becoming a Course Director and meet the qualifications described in the “Course Director Certification and Recertification Requirements” brochure, please apply now! After your application is approved by the Screening Committee, you must then complete a one-day Course Director Workshop. The Spring Course Director Workshop will be held in Salt Lake City, Utah on Friday, March 9, 2001 at the Embassy Suites Hotel.

The Fall Course Director Workshop will be held in Baltimore, Maryland on Monday, October 1, 2001 at the Embassy Suites Hotel.

You may contact Barbara Lechner at the CAOHC office at 424/276-5338 or e-mail info@caohc.org for more information, or access the CAOHC web site at http://www.caohc.org

Course Directors currently certified who wish to recertify via the workshop method may also attend.
<table>
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<tr>
<th>Begin Date</th>
<th>City</th>
<th>State</th>
<th>Director/Name</th>
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**UPCOMING OHC CERTIFICATION AND RECERTIFICATION COURSES 2001**

*The listed dates indicate day one of the scheduled classes; certification courses are 20 hours in length, recertification courses are 8 hours.*

Approved as of December 13, 2000 for a complete list of courses visit our website at www.caohc.org
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