

**Hearing Conservation Program for Construction Workers**

**Stakeholder Meeting  
Chicago, Illinois  
March 24 2004**

**Meeting Summary Report**

May 26, 2004

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# Hearing Conservation Program for Construction Workers

## Stakeholder Meeting Chicago, Illinois March 24, 2004 Meeting Summary Report

### 1. MEETING FORMAT

OSHA representatives introduced three topics of concern related to noise reduction in the construction industry: exposure monitoring, audiometric testing, and portability of records. Following a brief introduction to each topic, stakeholder meeting participants offered verbal feedback and discussion in response to OSHA questions.

The following text is a summary of the key points made during the stakeholder feedback and discussion period. All participants' comments are grouped together by topic, without reference to the identity of the speakers.

### 2. INTRODUCTION

OSHA representatives stated that the Agency wants to hear first hand from employers and employees in the construction industry their ideas of what can be done to reduce the noise exposures and hearing loss of workers within this industry.

OSHA noted that the construction industry is characterized by high turnover of employees, short-term employment for many employees, the existence of many small businesses, and the constantly changing nature of the worksite. These factors make construction unique in comparison to other industries.

The purpose of the meeting was to permit stakeholders to present their views and to present relevant information to the agency. OSHA is gathering data to determine whether to initiate rulemaking to reduce employee hearing loss in the construction industry.

### 3. TOPIC 1: EXPOSURE MONITORING

OSHA asked for information from stakeholders' experiences on the most effective approach to evaluating noise exposures in construction. It was observed that there is not one evaluation method that is guaranteed to work in all situations and that contractors do not have a lot of funds to pay for expensive monitoring programs. Two major suggestions were that (1) OSHA keep any future regulations simple and (2) workers must participate in the monitoring process.

To initiate discussion, OSHA asked:

- What is the purpose of exposure monitoring for noise in construction?
- When is it appropriate to use dosimeters or sound level meters? And what are the advantages and limitations of each?

- What is the role of historic monitoring?
- Who should be able to perform these measurements? And for what time period should historic monitoring remain valid?
- Is it appropriate to designate high noise areas at job sites, and how is it done?
- Should OSHA develop a database of tasks, noise exposure, and other relevant data?

### 3.1 *What is the purpose of exposure monitoring?*

Stakeholders feel that the most effective way to reach employees is through education and not a monitoring and results-based approach:

- Many people in the construction industry are not aware of how hearing loss occurs or what might be done to prevent it; therefore, hearing protection is not yet widely used or accepted by workers. Education is required to create awareness of the need for hearing protection among workers and employers. Training should include raising awareness of the effects of high noise levels, whether on or off the job.
- Most workers are likely to resist wearing hearing protection, and may rebel against a new regulation. Workers need to be aware of what the dangers are and what they can do to protect themselves. To convince workers to use protective gear, they must be convinced that wearing the protectors does not increase their risk by preventing them from hearing alarms or other warning signals. Therefore, OSHA should consider using education and the empowerment of individual workers as the most promising approach to prevention of hearing loss.

### 3.2 *What is the appropriate use of sound level measurement?*

The stakeholders commented on the pros and cons of using a sound level meter for collecting significant noise data:

- A valid use of sound-level meter measurements is to communicate immediately what is happening to workers on the site. Dosimetry is a way to address the needs of a worker with both high and low exposures, because it can give the worker an indication of when it is important to wear protection. Therefore, dosimetry is a valuable tool for measuring exposure levels during different parts of the day.
- Using sound-level measurement as a means for citing a workplace for noncompliance is complicated. The industry already knows that sound level is a problem: the challenge is how to manage it. Therefore, providing access to information that individuals can use to protect themselves may be the best approach. For example, attaching the sound level information for a specific piece of equipment directly onto the equipment itself can make workers aware of the danger and appreciate the need for protection. At the present time, regular measurement of sound levels rarely occurs on work sites.

### 3.3 *Is task-based evaluation or assessment a valid or workable approach?*

Opinions varied when stakeholders talked about using a task-based evaluation approach:

- Neither hearing loss nor noise level can be controlled without measurements to assess the situation; however, spot level measures are not adequate. Learning about the noise exposure caused by one source does not mean that the same level of protection is necessary or insufficient throughout an 8-hour day.
- Even when different approaches are used, workers are still overexposed. Too much protection does not necessarily make workers safer. In fact, some noises on a job site make workers aware of hazards; so it is important not to establish regulations that overprotect. Perhaps sampling procedures and the use of protection tailored to specific equipment can help avoid the hazards of over protection.

3.4 *Would the task-based approach help approximate high-level exposure parts of a day? If so, can the task-based approach be used exclusively, or should it be combined with other approaches?*

Stakeholders were not sure what approach would work best for evaluating exposure:

- The task-based approach would probably be helpful in predicting high-level exposures that occur during certain parts of the day. However, neither task-based assessment nor dosimetry is a perfect answer by itself. OSHA should use both approaches. It is important to do sampling, so guidelines can be developed and regulators can use a consistent approach. But the many variations in every work site situation require an individual approach.
- One reason contractors cannot accurately predict noise exposure in advance is that other contractors on the same site may create unanticipated noise hazards. The environment on a construction site is very dynamic. On many construction projects, there are numerous overlapping noise sources. One's own work task may be virtually silent, while other workers nearby are making loud noise. Most noise exposure frequently comes from tools used by other workers close by, and not from one's own tool. Dosimetry from one day will rarely predict noise levels on a second day. Therefore, it is hard to assess the needs throughout a workday, because of the many variables involved.
- OSHA should determine whether the actions being taken to protect workers are actually effective, especially when they apply to a long time period, such as 10 years or more. There is no magic bullet, but a results-based approach may be preferable to a step-by-step approach.

3.5 *Can noise level occurrences be predicted, trade by trade? Can the person in control of a job site have any control over noise created by different crews on the same site?*

Stakeholders believed that a level of prediction and control is possible. However, noise is rarely treated the same way as other work site hazards, in terms of communicating those hazards to others. Even when attempts to communicate are made, they do not cover all situations. Adequate communication concerning noise levels is generally lacking on construction sites.

### 3.6 *Suggestion: personal measuring device*

Stakeholders seemed to be hopeful that technology would advance beyond dosimeters to personal meters or alarms:

- In spite of the challenges of exposure monitoring, workers need to have the means to implement protection for themselves, should the noise level around them suddenly increase. A goal would be to find a way to achieve protection that does not disempower individual workers and that also does not require the use of a \$2,000 monitoring box that only a trained person can operate.
- Perhaps manufacturers should develop a personal device for an individual worker to use, which would give an alert whenever protection is needed to respond to rising noise levels in the surrounding area. The desired device would directly alert the worker, indicating “protect yourself now.” Such a personal device would be preferable to an outside directive that says, “You have to wear protective gear because OSHA said so.”
- There are emerging technologies that would allow a worker to continually monitor exposure throughout the day. For example, Penn State has embedded a dosimeter that measures exposure throughout the day within selected protective gear worn by an individual worker. At the end of the day, the worker can scan it and determine whether he or she received adequate protection during the day. This approach would preclude the need for external monitoring, and it is somewhat simpler than other approaches.

### 3.7 *What would such a personal device cost?*

Stakeholders suggest:

- It is more likely that the construction company would be asked to purchase a monitoring service for a monthly fee, rather than buy expensive monitoring equipment. Penn State’s device requires a monthly fee per employee, which includes the cost of the personal device as well as the monitoring service. Although available now to the mining industry, this self-measuring device has not been successfully promoted within that industry. The high cost and complicated nature of such devices has limited their use.
- An alternative approach that could be provided to a company would be to conduct lab test procedures and then test attenuation of hearing protection on individual workers. After testing, it could be left up to the individual worker to self-regulate.

### 3.8 *What has been the experience of small employers with respirators and respiratory protection? Are there lessons we can learn from them to help us study, measure, and establish regulations for noise levels?*

Stakeholders indicated that construction businesses are not generally using respirators. Small employers in particular are not doing much with either exposure assessment or use of respirators, other than trying to follow OSHA regulations.

3.9 *Who should be able to conduct exposure measurements? Should we allow trade associations or others to do the measuring and monitoring of all the different tasks on a site?*

Some stakeholders stated that those doing the best job of assessment seem to be those who let an insurance company or consultant set it up. In today's industry, employers do not do all the sampling. Sometime OSHA does it, or an insurance carrier or consultant. Although small employers do not usually conduct assessments themselves, they will follow required practices, such as in the case of wet-working with silica.

3.10 *How do you designate high noise areas on a job site?*

Stakeholders answered:

- Discerning the noise levels that individual workers are experiencing is difficult, given the variety of sound sources and concerns about the accuracy of noise measurements. The effort required to even try to measure accurately is generally considered too complex. It may be simpler to require the use of a standard hearing protection device for all workers, to provide available information on other protective devices that are available, or to allow workers to wear additional protection if they choose to do so.
- This discussion addresses the value of measuring noise levels, so we can assign protection to workers. However, is this even possible, given the high number of variables on a work site? Even if the noise levels involved were constant, how effectively can we actually measure noise and the effects of noise on an individual or a group? Furthermore, can we measure the effectiveness of a particular noise protection device? Even if we were able to specify the noise exposure experienced by a particular group, how accurately does that information serve the needs of a particular individual within that group?

3.11 *Suggestion: use a simplified approach*

The stakeholders' most repeated request was to keep a new standard simple. They commented:

- Although hearing conservation is important for each individual worker's hearing, it is only one of many safety issues that employers must address on a job site. Because of this reality, fit testing, validity studies, and other noise assessment and monitoring efforts are unlikely to be conducted. Employers want to know clearly what safety needs exist and specifically how to respond to them. For example, employers are likely to agree to distribute a particular device and require workers to use it. Perhaps the best approach is to require a particular protective device to be used by all construction workers, until employers are willing to conduct an assessment to produce data showing that the protection is not needed on their construction sites.
- Contractors are more likely to use a guidance document than to conduct their own measuring and monitoring. However, written standards should not include anything that cannot be enforced. Profits in the construction industry are declining, and contractors do not have money to spend on expensive monitoring equipment or consultants. On the other

hand, if requirements are simple and straightforward, employers will comply. Whatever OSHA decides, it would be wise to offer a fit testing alternative.

- A simple approach is needed. Getting workers to always wear protection when they are directly involved in a particular high noise level activity would be an improvement over current practice. Some individuals will prefer high range protection; others will prefer less protection.

### *3.12 Are you requesting simpler, more specific guidance from OSHA?*

Stakeholders continued their insight on a simple approach:

- Clear and straightforward requirements, such as the lead standard, are simple and fair. Another example is the silica standard, which instructs contractors to comply with a short list of specific actions. For example, a noise reduction regulation should say: “Wear this unless you can prove otherwise that it is not necessary.” Some indicators already exist that industry personnel have agreed upon, such as: “If you cannot hear someone speaking at arm’s length, something is too loud, and protection is needed.”
- Noise is somewhat like radiation, in that you cannot see it, nor can you measure it without complicated equipment. OSHA should write noise guidelines that are simple, on a task-based analysis level, and should avoid any regulations that can be interpreted in several different ways. Avoid putting anything into regulations that is not realistic, simple, and enforceable. For example, it may not be realistic to expect all contractors to use dosimetry to monitor noise levels.

### *3.13 In addition to simplicity, are there any impediments OSHA should consider?*

Stakeholders’ replied:

- Simplicity is important, but there is a genuine need to protect all workers on a site unless documentation is provided that proves otherwise. Anyone who works in the construction industry is automatically overexposed to noise and needs some level of protection. Workers must receive training about hearing loss and available protection, and have protection available to them.
- All employees on a work site should become involved in the company’s hearing conservation program. That means that everyone within a certain boundary of a particular noise source should use hearing protection. With this approach, noise monitoring would involve determining which group of workers needs protection today and which will need protection tomorrow.
- Simplicity is a major concern, especially for small contractors, who have a different mindset from the large companies. For example, the small contractor is focused on survival issues, such as making payroll at the end of the week. It is important to keep the guidelines simple, so businesses can avoid unnecessary legal complications.

- It is not necessary to wait for an exposure monitoring system to be established before a hearing conservation program can begin. A program can start with a simple requirement for using protective gear. Monitoring can be established later as a tool to help develop controls and identify workers who should be removed from the program.

### 3.14 *Should OSHA develop a database of tasks, noise exposure, and other relevant data?*

Stakeholders said:

- Decisions about safety protection tend to be made based on existing information; therefore, it is likely that self-regulation would occur if employers knew what measures are considered helpful. Given the current lack of information about the need for monitoring, it is unlikely that sound level monitoring equipment is apt to be used by employers, especially not by small businesses.
- However, providing both contractors and workers easy access to existing data would be advisable, because they would use this information for their benefit. In fact, providing good information would probably be more useful than establishing a regulation that requires testing of sound levels on site. Organizations in some states have already started collecting and entering such information into a database, which would make it easy for them to share this information with other states.

## 4. TOPIC 2: AUDIOMETRIC TESTING

Audiometric testing is considered an important tool in determining hearing loss in individuals. OSHA asked for information from stakeholders concerning practical approaches to providing audiometric testing in the construction industry, where a significant portion of the workforce is transient. Stakeholders are requested to respond to OSHA questions that arise during the discussion, in addition to the questions listed below:

- How is audiometric testing being used today?
- Which workers are tested, and how are they selected?
- How often is testing done?
- Who does the testing, and where is it done?
- What is a cost-effective way of testing?

### 4.1 *How is audiometric testing being used today?*

Stakeholders provided the following information when discussing the current use of audiometric testing:

- Audiometric testing is essential for evaluating a hearing protection program. However, an audiometric test is not just a single point in time, but a comparison over time, which requires a baseline. Getting a baseline is the challenge, given that workers move around among employers so frequently. Therefore, effective testing requires access to previous testing done at other employer sites.

- Washington State has a small statewide annual audiometric testing program conducted by a management-labor organization. In this program, contractors send employees to be tested and that data is entered into a database. Next, employees receive training about the need for hearing protection. As a result, the association can ascertain whether a worker has been tested within the past year, and the worker has an official card that verifies the date of the test.

#### 4.2 *Which workers are tested, and how are they selected?*

When talking about how workers are selected for audiometric tests, stakeholders responded:

- Most contractors conduct audiometric testing at the time of hire, as a protection against worker compensation claims. One informal survey of 1,800 contractors uncovered only one company that does audiometric testing on an annual basis. This one company is considered unusual, in that it is committed to taking contracts only in the home area, a factor that is appreciated by the employees and has resulted in an unusually high retention rate. It is a large, family-run company with a high commitment to employees, as evidenced by its strong overall safety program, which is part of its goal to retain a long-term workforce.
- Another company provides annual testing only for the employees who are most apt to need it, based on the type of work activities in which they engage. When this company first started audiometric testing, they tested everyone in their workforce, but now they test at the time of hire to establish a baseline and annually thereafter only if a worker's job is considered at risk of overexposure.

#### 4.3 *Who does the testing, where is it done, and who pays for it?*

Stakeholders' comments are as follows:

- Who does the testing and where it is done are important factors. Audiometric testing should be conducted only by trained and qualified audiologists and technicians. There are approximately 25,000 certified hearing conservationists in the country.
- A variety of testing resources is available; including testing that is conducted at training centers to capture a baseline for trainees. Likewise there are a variety of payment sources. For example, some testing is paid for by the laborers' union, and some contractors request and pay for testing.
- Portable audiometric testing vans simplify the testing process, and they are available in most parts of the country. There are approximately 500 or more mobile vans that conduct audiometric testing, and this should be enough to meet the need. A study conducted 25 years ago indicated that mobile testing vans were available in every state.
- Any contractor, union, or labor group can easily locate mobile testing services, but they are unlikely to do so unless it is required. It takes about 15 minutes and from \$20 to \$30 to test one person. In Washington State, testing is done at portable locations on

Saturdays and is now offered for free, although there are plans to start charging a fee for service so it can reach more people.

- Convincing contractors to use audiometric testing may be difficult. All contractors do not recognize why testing is important, and they will want to know why it is needed and how it will benefit them. Contractors generally make a low percentage profit, so anything extra that costs money must show some benefit. Audiometric testing is considered to be a primary stumbling block related to a regulatory approach to the hearing loss program overall.
- Trade associations could help negotiate this issue by taking on the responsibility for testing rather than placing the burden on individual contractors. For example, audiometric testing could be conducted routinely at training centers when new people are entering the industry, and the trade association could sponsor the testing.

4.4 *Given high turnover rates, what makes sense regarding frequency of testing? What is the purpose of audiometric testing? Is it the same as in general industry – a backstop for the rest of the hearing conservation program?*

Stakeholders made the following comments regarding audiometric testing:

- Testing can benefit the individual worker, as it reveals a specific problem and encourages both the worker and the employer to improve that person's hearing protection. But it is difficult to determine overall program effectiveness if there is not a consistent employee base. When workers have several employers within the year, it may not be possible to pinpoint which employer may be responsible and therefore liable for a worker's hearing loss. This raises the question as to whether employers are responsible to OSHA for an employee who moves from employer to employer. If the workforce is not consistent, testing will not show whether a contractor's compliance is sufficient.
- The primary value of an audio metric testing program may be to personally motivate individuals to take action. When not faced with an annual audiogram, it is hard for construction workers to relate to the hearing loss issue. However, when workers see the results and realize that it is their own hearing that is getting worse every year, they are motivated to participate.
- Individual monitoring results can also benefit the worker, the employer, and the industry by helping to make decisions about steps for future protection.

4.5 *Is there a subgroup of workers that stay with a company and others who come and go? Should we limit testing to the long-term employees?*

Stakeholders said that not all contractors are the same. Some have very short employment terms, depending on their specialty areas. Different types of construction companies use a different range of employees – whether long term or short term. There are some skilled laborers, however, that do stay with one company over time. If the purpose of testing is solely to evaluate the program, then it is only necessary to test these long-term workers. However, if the purpose is

to raise the awareness of workers concerning the need for individual protection, then both short-term and long-term employees must be tested.

#### *4.5.1 Suggestion: consider impact of non-occupational noise*

Stakeholder perceptions on non-occupational noise:

- Many workers are exposed to high noise levels away from the worksite, too. This is not just a job-related issue, but a fact of life in many recreation locations, such as movie theaters, motorcycle races, and gun clubs. However, occupational exposures are much more intense, which challenges the significance of non-occupational noise. Recent studies around the country show that recreational exposures are not as great as occupational exposures and that only a small percent of non-occupational noise is high enough to cause hearing loss. (The studies referenced include those done by the United States Air Force, State of Ohio, as well as others.)
- In addition, it was argued that the 85-dB mark currently accepted as the border between acceptable and non-acceptable noise levels should not be lowered. If the mark is much lower, it would become harder to distinguish between non-occupational and occupational noise levels. For example, a recent measurement of movie theater noise levels showed that they are rarely higher than 80-dB.

#### *4.6 Do individuals have a reason to fear that audiometric testing might hurt their chances of being hired if they have a record of poor hearing?*

Some stakeholders said audiometric testing rarely hurts workers' employment opportunities, even if they have a record of poor hearing. Only a very few workers get a low test score more than once, as individuals usually make an effort to improve their working environment once it is known that a problem exists.

## **5. TOPIC 3: PORTABILITY OF RECORDS**

Given the transient nature of the construction workforce, portability of records is a challenge. OSHA seeks ideas and approaches on how to create long-term audiometric records for short-term employees, and solicits ideas on how to decrease the difficulty of maintaining historic records, transferring audiometric test results between employers, and ensuring privacy. OSHA provided the following questions:

- What mechanisms are currently being employed to make meaningful use of these long-term records?
- What are the advantages and disadvantages in involving individual employees in the transfer of these records from employer to employer?
- What is the role of technology in addressing this issue?

#### *5.1 What mechanisms are currently being used?*

Stakeholders commented that there are a number of web-based providers around the country who serve employers with multiple sites. The database systems they have developed enable such companies to collect and manage information on their own employees. These systems could have a security system that would protect confidentiality. In Washington State, a management-labor association uses a statewide database system. Every participating contractor in the state may go online and validate a baseline for a new employee, if that person has been tested and entered into the database.

### *5.2 What is the role of technology?*

Stakeholders pointed out that a national database providing testing information on individuals would be useful to contractors. To protect privacy, such a database could use numbers to collect information rather than names, and still allow participating employers to get the information they need. Washington State already has a protocol in place for such a process and could share it with OSHA.

### *5.3 Is it necessary to be that complex?*

Although it may be complex to develop, stakeholders consider a national database as much easier for users compared to pre-web options. Consider how complex it can be to track down paper files on past test results over several past years at different contractor sites.

### *5.4 Advantages of standardized database*

Perspective from stakeholders included:

- At present there is no standardized format and no sharing of information between employers. OSHA may need to establish a standardized format that all contractors could access in appropriate ways. There also may be other agencies tracking public health data that might have good models to follow.
- Currently, there is no good communication between states around issues of shared information. Although the technology is available for establishing a national information database, many local groups have restrictions. For example, the drug testing model currently in use is pretty simple, as a person either passes it or does not. However, there is no standardized system that all states share. Some states or unions will not allow the use of social security numbers, so different types of identification must be used.

### *5.5 What are the advantages and disadvantages of involving individual employees in the transfer of records from employer to employer?*

Responses from stakeholders regarding “smart cards” were generally negative:

- In some areas the building trades have a “smart card” that allows certain information about training and testing to be put on the chip, but this practice is not consistent across the states. To utilize such a system, the employer must buy a smart card reader, which costs about \$300 and is easily attached to a computer’s hard drive. Each card costs \$10,

and each audiometric test costs \$30, so the costs mount up. Small businesses are likely to find this system too costly and time-consuming.

- Requiring workers to carry papers or cards to verify their status could become a problem, as workers may show up without their cards and thus lose their chance of being hired. In Canada, British Columbia is using smart cards to track audiograms, but have found that within a period of 3 years, one-third of the cards issued were lost.
- A technological database would be a more dependable means for tracking test data long-term than entrusting individuals with carrying their own test data. Getting people to bring records with them to a new employer is an unreliable approach, and we would run the risk of workers losing their information, as happened in British Columbia. A data card in a worker's hand is not like a hard hat: a card cannot be replaced if there is no database back-up.

5.6 *Are there any companies, particularly small contractors, which do not use computers in their businesses today?*

Stakeholders offered insightful commentary on the issue of current computer usage among construction companies:

- Some small businesses still use only handwritten business forms. Perhaps half of contracting businesses in some sectors do not use computers. Therefore, a single system nationwide that relies on technology will probably not work at this time. Instead, OSHA will need to use multiple systems.
- There are on-line medical evaluation services for respiratory issues available to employers. Small companies have been attracted to them. Such service companies use a back-up paper system for users who do not have e-mail addresses or other computer access. Using both systems has enabled these services to accommodate everyone. There are also some doctors who do not have computer or Internet access. A paper back-up system is important.

5.7 *Do people in the construction industry know about the audiometric testing systems and integrated software?*

Knowledge of audiometric testing in the construction industry seemed to be universal, but it is not used, according to stakeholders:

- Commercial database programs and audiometric tracking technology generally are available, and some companies do use them. However, companies use a variety of separate programs that are not compatible with each other. Therefore, each company must take the electronic results from their system and transfer it to a paper system before they can mail it to a central system that will then re-enter the data into a different electronic format. If OSHA set up a standard electronic system, everyone could start using a common system.

- Employers need to retain hearing records as they retain medical evaluation data, which allows each employer to depend on the validated efforts of previous employers. A new employer could access the previous employer's data to learn whether a person has been tested and whether the results were positive or negative.
- In addition to these concerns, audiometer microprocessors are common in the industry, but there are still some offices that do not use them.

### 5.8 *Suggestion: alternative approaches*

Other methodologies were offered by Stakeholders:

- Perhaps it would be better to offer companies incentives – such a tax breaks – for participating in hearing conservation programs, rather than to rely on enforcement procedures. During a tight construction market, there must be some attractive enhancements, motivators, or other financial benefit to offer contractors.
- It may be simpler to require every worker to go through training and then expect each individual to take appropriate precautions, rather that using enforcement. OSHA's 10-hour training should include mandatory training on the need for and use of personal protective equipment.

## **6. OTHER COMMENTS AND SUGGESTIONS**

### 6.1 *Suggestion: educate and enforce current regulations*

Stakeholders reiterated that there is already an OSHA standard for noise. They said, instead of creating more rules, we may simply need better enforcement of current regulations and better education about hearing conservation, including the importance of pre-planning, upper management acknowledgement, training, and protective gear. At present, there is not much motivation for employers to be more proactive with regards to hearing loss. Both employers and workers must be educated about the needs.

### 6.2 *Is education, training, and awareness sufficient?*

Stakeholders hold training in high regard, but they believe there must be more to a hearing conservation program:

- Education is important, and enforcement is also necessary. The reference to the regulations regarding lead was helpful: identify the tasks and the protection needs, and then enforce the regulations. On the job, supervisors can serve to motivate workers to comply with guidelines. Peer testimonials can also be effective. If OSHA will take the lead, employers and workers are likely to follow. Then enforcement will be possible.
- One contractor mentioned providing training for new employees as they come on the job and providing hearing protection for them. Although he cannot always know how many workers actually use the protection, workers do respond to the training and begin to use

protective gear. This contractor currently is not doing any monitoring because he is not motivated to do so. If OSHA provides regulations that are clear and if contractors are cited for violations, then they will take action.

### 6.3 *Observation: culture change will be necessary*

Stakeholders remarked:

- At present, hearing conservation methods vary greatly from site to site and from manager to manager. Employers are reluctant to implement testing, unless they know there is a larger program to support them. Unless OSHA takes a lead here, nothing will change.
- In Washington State, a high percentage of worker compensation claim for hearing loss is from construction workers. Therefore, the State OSHA has increased the emphasis on hearing loss programs. As a result, they have found that regulations do encourage more program implementation on work sites. Increased audiometric testing combined with education and technical assistance have resulted in greater program participation by employees. Industrial insurance claims also put pressure on employers to comply, as employers become liable for disability claims.
- Stakeholders said that employers, traditionally in the construction industry, have not exhibited a lot of care for workers; likewise, there is not a strong expectation for workers to care for themselves. Therefore, asking workers to care about themselves and to take care of themselves by wearing protective gear is asking for a cultural change. This kind of change will take time.

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