

Hearing Conservation Program for Construction Workers

**Stakeholder Meeting
Chicago, Illinois
March 25, 2004**

Meeting Summary Report

May 25, 2004

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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?

With respect to the purpose of exposure monitoring, stakeholders noted the following:

- The construction industry is different from general industry, because up to six different samples may be needed to gather accurate baseline data on all the different noises to which workers are exposed. Such extensive testing is not always practical. In addition, there is disagreement over whether dosimetry will collect the exposure data needed for all work site noise and combined noise. Some stakeholders agreed that whether an individual needs to raise his or her voice to be heard by another person on a work site is not a good test to determine the need for using personal protective equipment.
- Although initial audiometric tests are needed to establish a baseline for individual workers, exposure data are also necessary, to determine what causes worker hearing loss and to validate hearing conservation programs. Without exposure data, audiometric testing alone will not show program effectiveness.

3.2 What is the appropriate use of sound level measurement?

Stakeholders responded:

- Sound level measurement is effective for providing information to workers about individual hearing loss issues. When employees see their testing results, their participation in hearing conservation programs tends to increase. Construction workers are generally resistant to wearing protective equipment because of the desire to hear other things on site, such as sounds in a concrete mixer that indicate the mix is almost ready. However, audiometric testing followed by appropriate training is effective for alerting employees to the importance of wearing protective gear.
- In addition to measurement of exposure levels, a successful hearing conservation program requires employer enforcement, good management support, and simple, enforceable regulations.

3.3 What is the role of historic monitoring?

In addition to using historical data, stakeholders suggested that OSHA could adopt a flexible approach that allows individual companies to develop and use their own data as a guideline for developing a hearing conservation program. Flexibility would permit companies to use their own or industry data.

3.4 Does the use of protective gear add to worker risks?

Stakeholders noted that the ability to hear important sounds on the job, such as warning signals, are impeded by work site noise, as well as by using earplugs or other protective gear. Back up alarms generally can be heard over work site noise or through earplugs. Sometimes there are hazards associated with certain types of protection, such as eyewear or hard hats.

3.5 *How useful is a simple task-based approach to exposure monitoring?*

Stakeholders made the following observations regarding a task-based approach to employee exposure monitoring:

- Although it may not work in all situations, there is a lot of support for task-based monitoring. Task-based information is reliable if workers always use personal protective gear whenever using specific equipment. Data shows that exposures tend to be highly consistent based on tasks, regardless of the location of a construction site. Even combined exposures on a work site are fairly consistent based on studies conducted on sites. It is true that audiometric testing is of utmost importance, but it cannot replace the task-based approach to monitoring noise at the work site.
- However, it can be difficult to predict overlapping noise levels accurately for a particular day using the task-based approach. The combination of noise levels created by multiple trades working near each other varies immensely from site to site, as well as day to day.
- A safe approach is the “100 percent rule,” that requires workers to wear full protection at all times. Compliance with OSHA regulations is always considered inconvenient, but contractors will enforce OSHA regulations. It may be simplistic and autocratic, but it works the best. It is easier to have a blanket rule, like we have for hard hats, than to convince people to use hearing protective equipment only for certain tasks.
- It is critical to keep any new regulations extremely simple and straightforward, so that even the smallest companies will accept them. Small contractors would be willing to do audiometric testing, but will not be able to afford exposure monitoring services. There needs to be a simple way to both evaluate noise in the field and recommend needed protection.
- Another approach may be to use hearing protectors that do not provide complete protection at all times, but that can be adjusted as needed. For example, the earplugs that soldiers use on battlefield, called “combat arms earplugs,” are well-designed for environments with variable noise levels, as some sounds come through. There is augmentation for the plugs that attaches to the worker’s hard hat. One side of the earplug has perforation; so, depending on the noise level, the wearer may just use the earplugs or may add on an earmuff that fits on the hard hat and may be popped down as needed. In addition, the earplug has another side that can be activated for further noise control.

3.6 *Suggestion: personal measuring device*

One stakeholder suggested that a simple personal noise measuring device be developed. His comments included:

- A simple, dramatically different approach is needed now – something that perhaps uses red, yellow, and green indicators for levels of protection needed at one time. A simple protective device should be identified, which would be accompanied by an OSHA regulation that requires a simple personal monitor. Manufacturers in the private sector could probably produce such a protective device for \$100 or less each, depending on the demand. OSHA should create pressure for a modestly priced product that uses simple indicators, such as a personal dosimeter that alerts the worker to the need for various protective gear.
- There is a tendency for workers to use protective gear on a whim, rather than based on knowledge. The marketplace should be able to create a personal monitor for individual workers that notifies them when noise levels are getting too high and when personal protection should be used. If there was a modestly priced, uncomplicated, user-friendly sound level indicator designed for the individual worker, all of the other related questions may be answered.

Another stakeholder suggested a similar approach in which one person on each work crew would wear the monitor, so that one individual could alert crew members whenever a need for protective equipment was indicated. This stakeholder also preferred the use of area monitors over the use of individual dosimeters.

3.7 Who should conduct exposure measurements?

Stakeholders offered the following opinions regarding the appropriate qualifications for those individuals who conduct employee exposure monitoring:

- Currently, three hours of training is enough to qualify a person to conduct exposure measurements. However, there are concerns that this training may not be sufficient. An organization that approves training and accreditation for technicians may create special sidebar accreditation training for noise level assessment. A curriculum is now being developed to provide such training if the accreditation is approved.
- Large businesses may send someone from their own staff to receive training, but small businesses are more likely to hire a trained consultant to conduct noise level assessment. A consultant will use a database to classify types of noise and then follow up the assessment by designing a hearing conservation program for that business. For example, a program guideline might read, “Jack hammering typically makes noise over 90 dB, therefore personal protective equipment should be used.”
- If employers are to be expected to conduct their own monitoring, minimal training in exposure monitoring techniques will be needed. It is not really practical for small businesses to do their own exposure monitoring, as the cost of buying or renting equipment would be prohibitive. Renting measuring equipment for just a week would not be sufficient, because it is not possible to measure the noise of all trades on a site in

one week's time. It is difficult for a small contractor to determine how often a worker is exposed to a particular piece of equipment.

3.8 *How are high noise areas designated on a job site?*

Stakeholders stated that the variability on a job site is very great depending on the type of equipment and different day-to-day situations. In fact, the noise from the same equipment may vary from very high to within safety levels depending on how the equipment is used. The question is how to identify jobs where hearing protection is required and those where it is not. Stakeholders suggested that the industry needs to find personal protective equipment for hearing loss that is easy to use, but also needs to find ways to determine when that protection is needed.

3.9 *Can noisy tasks be separated to reduce the overall noise level?*

Stakeholders acknowledged that it is often possible to schedule certain tasks to be done at separate times and thus reduce the combined noise level. The design and management of the work schedule is critical for this approach to be successful. Two issues are involved: operator exposure and bystander exposure. Stakeholders noted that task-based monitoring will work for operator exposure, but a perimeter area monitor is needed to measure bystander exposure.

On a project basis, scheduling is a problem for many reasons – primarily that of controlling access to the site for several different trades. A contractor will likely always have several trades working concurrently. Stakeholders noted that the use of sound barriers, baffles, and perimeters are efforts made to avoid impacting the noise levels of other trades, but the problem remains.

3.10 *Can the type or phase of a project be characterized?*

Regarding characterizing construction sites by phase or type of construction, stakeholders' comments included the following:

- A task-based approach can benefit from modeling, in which ranges of exposure can be satisfactorily identified. But the task-based approach will not allow for accurate measure of individual exposures. Unfortunately, exposure measurement is not as clear cut as the industry would like, as far as noise levels, tasks, and multi-trade presence on a site are concerned. However, some consultants believe it is possible to take up to four groups of trades that are creating overlapping noise and make reasonable estimates of their noise levels.
- One can never know from one day to the next what all is happening on a large construction site, which makes it hard to plan using a task base. Smaller companies generally have better success with the task-based approach than large companies. Companies that have tried for years still cannot do it well, but most who have tried believe it is better to use some protection than none at all. It may take OSHA five or more years to develop a workable system.
- The variability of noise levels on a work site raises questions about whether dosimeter testing should be required. Companies that provide noise level protection equipment can do some prediction for noise levels and the need for appropriate protective equipment

based on a variety of test results. The cost for thorough testing of a job site is clearly prohibitive for many companies, but use of representative sampling can provide some guidelines.

3.11 *How should baseline exposure be determined?*

Stakeholders replied:

- To determine baseline exposure levels, companies should use a task-based approach in which different noise levels are identified, based on different background situations, different amounts of exposure time, and other identifiable variables. This approach would help prioritize different types of exposure levels and the need for protection. Some situations definitely need protection and others definitely do not. The program manager would have to carefully oversee appropriate application of protective equipment.
- The other possible approach for determination of minimal exposure levels is the use of representative testing through area monitors. An inexpensive monitor that sounds off in an area would be helpful, and it would be usable by small companies of 7-10 people.

3.12 *How could OSHA develop a database of tasks, noise exposure, and other relevant data?*

Stakeholders suggested that:

- OSHA should take the lead on creating a database that contains current information on tasks' noise exposure, and other relevant data. Looking at monitoring from a cost-effective standpoint, large businesses could possibly provide exposure monitoring. But small business would not be able to afford in-depth sound surveys, so it would be difficult to expect them to follow through with monitoring. Small companies would more likely participate in hearing conservation if they had access to a database of information that names a task, identifies the noise level associated with the task, and recommends whether and what kind of protective gear should be used.
- The technology is available now to start working on a database of noise level information. The database could include exposure level information and details about the danger of noise levels associated with a particular piece of equipment. Making this type of information available to workers and employers is critical for full participation.
- If OSHA develops a database, they should consider using a 5 dBA-doubling rate.

3.13 *Are there privacy issues to be considered with a national database?*

Stakeholders stated that privacy is not an issue for a database of noise exposure levels, as the data collected concerns pieces of equipment, and not individual users of the equipment. However, if there were an interest in the inclusion of personal data, OSHA could use a gatekeeper to manage privacy.

3.14 Are suppliers providing data on noise levels for their products, such as placing noise level data on manufactured equipment? Are manufacturers supplying noise output data in sales presentations?

Regarding equipment suppliers' efforts to provide noise levels for their products, stakeholders observed the following:

- U.S. suppliers are not giving much attention to noise level data, although this concern is more commonly addressed in Europe. It is difficult for manufacturers to make any accurate determination of how long exposures may actually be, so they use assumptions.
- In the United States, manufacturers are reluctant to offer exposure data because it can easily be misused. The whole site, not just a single piece of equipment, must be figured into a worker's exposure. Although manufacturers do develop numerical data based on ANSI standards, it can be misleading. Employers generally do not understand how to use this data appropriately and what their obligations are to figure it into the whole site exposure picture.
- The European model is often insufficient and, therefore, misused. For example, the information on a piece of European equipment may refer to the noise level for an 8-hour period, although a worker is rarely exposed to one specific noise for a full 8-hour period. Testing performed with equipment in a sound chamber and labeling based on this test is not equivalent to the actual noise level on a construction site.
- Based on their experience with other types of protective equipment, workers may not understand why it is all right to use a tool for a certain number of minutes without protection, but not for a few minutes longer. For this reason, workers need clear and simple regulations that require the use of specific protective gear whenever a particular piece of equipment is being used. The cost of protective equipment will be passed on to customers through the cost of construction.
- Manufacturers say they can create anything the contractor wants, but when audiometers and dosimeters are mentioned, they may not be familiar with this technology, which means they are unlikely to produce them. Likewise, if contractors do not know what these devices are, they are unlikely to either buy or use them.

3.15 Can the noise of the tools themselves be reduced?

Stakeholders mentioned that some area monitoring has been conducted and indicates that all areas of a construction site need protection. Manufacturers are still examining the needs currently being discussed. There are some aspects of noise from tools that manufacturers cannot control, such as the sound of air leaving the tool. However, there are many aspects that they can control. There may be a trade-off, however, because if costs go up, they will be passed along to the customer.

3.16 How would the market develop quieter equipment if OSHA set a standard?

Stakeholders suggested that manufacturers are now ready to produce equipment that would reduce background noises, but the accompanying increase in cost would probably be a problem. The market reflects demand; if a quieter tool is significantly more expensive, would people buy it? Regulation definitely does drive manufacturers to create new products. For example, the backup alarm has become a popular product. But the newer replacement technology is not of interest now because there is no regulation to require it, and, therefore, manufacturers are not yet producing these products.

4. TOPIC 2: AUDIOMETRIC TESTING

Audiometric testing is considered the primary method to measure hearing loss in individuals. OSHA seeks information from stakeholders concerning practical approaches to providing audiometric testing in the construction industry, where a significant portion of the workforce is transient. OSHA raised these questions:

- How is audiometric testing being used today in the construction industry?
- 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 *Purpose of audiometric testing*

In spite of the many issues involved, stakeholders noted that the real purpose of audiometric testing is to protect workers with varying degrees of hearing loss from becoming worse in the future and to evaluate a hearing conservation program. For younger people coming into the industry, learning about their current hearing ability and the risks of high noise levels help them do a better job of protecting themselves both on and off the job. Workers must be informed about test results. To not do testing means that workers will not know they are losing their hearing, their hearing loss will likely grow worse, and companies will run the risk of worker compensation claims. Conducting a baseline test protects employers as well as provides important preventive hearing loss information to employees.

4.2 *How is audiometric testing being used today?*

When asked to discuss the current state of audiometric testing, stakeholders responded:

- Audiologists conduct numerous kinds of hearing tests for local area workers. Most of the people tested by one audiology company (that was represented by a stakeholder at the meeting) works for small contractors (some as large as 50-70 employees, others as small as 5-10). They use hearing test software geared to the needs of local companies. Their mobile truck may visit an employer site, conduct educational presentation to a group of employees, and test individual workers – all within an hour. Or they may provide testing and training as part of a company's planned safety meeting.
- One small audiology company does testing for their clients on an annual basis and keeps track of individual employee hearing data on their database. If any workers miss the

annual test, the audiologist asks the contractor to send those workers to a clinic for testing and then asks the clinic to send the results to them for entry into their database. Some audiology clinics and testing companies have no problem with sharing data. Many of the audiologists use the same database software to store records. They often rely on test results from clinics and from other audiologists and technicians who have been certified by the State. Test results are shared with employees only if the employer requests it.

4.3 *Which workers are tested, and how are they selected?*

Concerns regarding worker testing were expressed by the stakeholders:

- Small businesses rarely do audiometric testing, as the high turnover of workers in a 4-person company, for example, makes testing unrealistic. Contractors are reluctant to spend money on testing for workers who will not be with the company a year later for the second test. These small businesses, with 30 or fewer employees, make up 50 percent of the industry. Small contractors cannot afford audiometric testing and will not agree to it. OSHA should not make it a requirement for them.
- Many employers are not yet convinced that they need a testing program, but in Washington State a trade association refers them to audiologists for baseline testing. For example, there are significant differences between residential and commercial construction companies, with residential construction companies generally experiencing more turnover in personnel. In addition, workers often move from one company to another in the same area, based on job availability.

4.4 *How often is testing done?*

Stakeholders observed that the frequency of audiometric testing is variable but suggested the following:

- Large construction companies often do testing, but vary as to whether it is done annually or less frequently.
- One company reported that annual testing is the best they can do, given the time and costs of testing. Testing has to be done in the morning, before the noise exposures of the day have started, but after workers have recovered from outside exposures experienced while travelling to work. This delay results in requiring about one hour per person for the test, which results in costing the company about \$300 or more per person, once the lost time on the job and the \$150 for the test itself are computed.
- Most large companies conduct baseline testing of new employees to protect themselves from future worker compensation claims. If a baseline test shows that a person is already showing considerable hearing loss, it is unclear what is in the employer's best interest. Should the worker be sent back to the union hall? Knowing that data from these tests will become available to opposing counsel in case of compensation claims, the employer is faced with several questions, including: What do you do with the results of testing? How do you determine whether a worker's hearing is too bad to make it worth hiring

him? And what do you tell him concerning his hearing data and your decision not to hire him based on that data? A similar situation is faced for respiratory testing and protection. If a worker does not have enough lung capacity to use a particular piece of respiratory equipment, what do you do?

- One company has a large transient Hispanic worker population across the country, and it is hard to track data on transient workers. As a result, additional liability is created for the employer. This company reported a contract that requires 2,800 workers, with a change in construction personnel of about 200-300 people every week. The only way to keep track of these workers and their audiometric data would be through the union, but the union does not want the responsibility.

4.5 *Who does the testing? Where is it done?*

Stakeholders offered the following examples with regard to audiometric testing:

- In several parts of the country, large companies are using commercial software to guide noise level testing, using prepared databases containing equipment used and associated noise levels. The main complaints of this approach have related to taking mobile vans to construction sites, which may not have electricity and may have high outside noise levels. Therefore, it is often difficult to do testing at job sites for large employers. Other employers use clinics for testing.
- A large company in the Chicago area has an annual mandatory testing program. Their primary problem relates to keeping track of the 15 percent of transient laborers. If laborers move from one company to another, it is common for former employers to lose track of them.
- In Chicago, testing is done at the union hall, but the union does not track testing data. Many laborers operate out of the union hall, and the first day and a half on the job are spent in testing. In some cases, a laborer may disappear after the testing and never show up on the work site. In any case, the contractor pays for this testing and keeps it on file. They will share testing information with other employers and area clinics upon request. The data is with the company, not the union or association. However, it is hard to maintain good data for their own employees because of turnover.

4.6 *What is a cost-effective way of testing?*

Audiometric testing is a complex budget issue for many companies. Stakeholders commented on this issue:

- It is a challenge to make audiometric testing cost effective for small businesses, such as companies with only two or three employees. In some cases, a couple of small companies may work together and thus reduce the costs of testing. Another option is for employers to cooperate and cut costs by working together through the trade associations.

- There are many small testing providers who could meet the testing needs of small businesses, including on-site testing and early morning times. A separate database can be maintained for each company served.
- One contractor with a mix of short-term and long-term employees reported that although they do not provide audiometric testing because of the cost, they are concerned about workers with more than 10 years in the trade who are transient. The concerns are that OSHA may find the company non-compliant and that they may be open to compensation claims. Although audiometric testing may cost only \$15 to \$20 per person, costs add up to about \$300 per person, given time away from the job, travel time to the testing location, and so forth.

4.7 *Stakeholder comments on an OSHA standard:*

- Personal protective hearing equipment varies in the level of protection it provides depending on how hard it is pressed into or against the ear. The need is for hearing protection technology that will be consistent in individual use. If workers and employers apply different standards for the use of protective gear, it will be harder for OSHA to regulate. Hopefully, the new generation of protective technology will bring everyone together toward compliance.
- Concern was also expressed that separate standards may be needed to address differences between residential and industrial construction.

4.8 *Suggestion: shared database needed*

The importance of sharing records through a computer-based system was discussed by stakeholders:

- A shared database management system is necessary to deal with the transient worker issue. For example, an employer can give a baseline test to new employees, who later leave and take a job elsewhere. Then they return to the first employer, who tests them again and discovers they have a hearing loss. Who is responsible – the first employer or the other company? If both employers had conducted testing of employees and stored that information in a common database management system, then annual testing would make it clear what is happening and which company might be responsible. Action could then be taken to help workers address their hearing loss and to help the employer if faced with a compensation claim. Testing does have a cost, but compensation claims can be even costlier.
- Most testing companies take responsibility for tracking worker data, so that is not an additional cost for contractors. Contractors are usually more concerned about the amount of time required for testing, but mobile testing companies can test and train an individual within as little as 20 minutes. A shared database would be important to allow testing companies and employers to know whether a worker has been tested before.

4.9 *Suggestion: education needed for workers and employers*

Some stakeholders felt that more education concerning the need for hearing protection would stimulate employers and workers to get involved with testing and protection use.

5. TOPIC 3: PORTABILITY OF RECORDS

Hearing loss is a long-term process. Given the transient nature of the construction workforce, portability of records is a challenge. It seems to make little sense to conduct a baseline audiogram or other test for every new employee, because workers may change jobs frequently. 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 led the discussion with 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 provided examples of ways to keep long-standing audiology records:

- Attendees from Washington State claimed that audiometric testing is common practice in their state. They have found that the typical age of new construction workers coming on the job is 27 years, and many of them already have some hearing loss. Because of this, a baseline test helps both worker and employer. There is a cost to the employer, but there are also savings if compared to potential worker compensation claims. Employers may choose to wait for up to 2 weeks before conducting the baseline tests to determine whether the new employee is a dependable worker.
- Some employers have found that using a third party database administrator or audiologist is helpful. Most construction workers tend to stay in the same general area, even if they do not work for the same contractor for long periods of time. Therefore, having someone to track hearing loss data for transient workers is an advantage.

5.2 *What mechanisms are used for collecting data?*

Stakeholders suggested the following approaches:

- An audiologist collects data directly from workers, enters them into a database, acquires additional data from clinics, and updates them. Employers refer new employees to the audiologists to see if they have him or her in the database already.
- There are many local and regional trade associations in the construction industry, which means there is potential for groups to work cooperatively and approach these issues

together. Even if workers only get one test in their lifetime, that test provides the information needed to make appropriate decisions to protect their hearing.

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

Stakeholder comments on the transfer of records include:

- The primary disadvantage of optical cards or “smart” cards is the risk of card loss by employees. There is personal information on the card, which, if lost, could create danger for the individual. A lost card could be a serious problem if not available to the employer at the time of hire. Also, everyone who conducts the hearing tests would have to receive technical training to enable them to enter data onto the cards.
- The building trades and teamsters unions have recently supported the use of smart cards for security access to construction sites and for recording of personal data, such as drug records, training, and other data. Any type of information can be stored on these cards, and limited access can be provided for different types of data. The cards are relatively cheap, costing about \$15 per card per person, and the electronic readers cost \$300. Automatic updates can be entered every time the card is used. A photo can be added to the surface of the card that is also saved in the master database. In addition, a PIN number is used as further protection from misuse caused by lost or stolen cards.

5.4 What is the role of technology in tracking worker data?

Stakeholders seemed positive when discussing the use of a database to keep track of records.

- A web-based database system could hold all essential information on an individual worker, no matter for which employer he or she is working at a particular time. This information could include baseline and updated audiometric testing results. Such a database could accommodate people entering data from several services, whether medical or auditory or other. It could provide information back to the individual and to employers and to audiologists, as needed.
- A system like this could assure that the best technical people in the field would be managing the program.
- At present an organization in Washington State keeps updated data through the company that does the audiometric testing. An industry trust fund in the state pays the audiologist to track the data.

5.5 Would a computer or web-based database work for small businesses?

Some stakeholders pointed out that many small contractors do not have uniform access to computer technology, and many of them have no desire for it.

6. OTHER COMMENTS AND SUGGESTIONS

6.1 *Involvement of the Director of Construction.*

Although OSHA does communicate with the Department of Labor's Director of Construction, it was observed that stakeholders would like to have him participate directly in the noise reduction discussions.

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