

Noise advisory meeting, September 17, 2004

Laura Boatman, State Building Trades  
Julianne Broyles, California Chamber of Commerce  
Tad Coatsworth, Sheet Metal Workers Local 104  
Charles Fankhauser Petitioner, Medical Electronics Designs & Instruments  
Judith Freyman, Organization Resources Counselors  
Merlyn Lubiens, Center for Hearing Health  
Mary McDaniel, Center for Hearing Health, Petitioner  
Tom Mitchell, Occupational Safety and Health Standards Board  
Marti Stroup, Associated General Contractors  
Beth Treanor, Phylmar Group  
Ray Trujillo, State Building Trades  
Richard Vaughn, Health-Metrics, Inc.  
John Vockes, PGE  
Steve Smith, Division of Occupational Safety and Health  
Robert Nakamura, Division of Occupational Safety and Health

At approximately 945, Mr. Nakamura opened the meeting with general information about the facility and the agenda. One person, Richard Vaughn, had come to comment on the topic scheduled for the afternoon but had to leave at noon. Mr. Nakamura asked the attendees if anyone objected to switching the morning and afternoon discussions, there were no objections. Mr. Nakamura asked the attendees to make self-introductions.

### **Appendix C: Allowable noise levels for testing environments.**

Synopsis: Dr. Fankhauser and Ms. McDaniel had discussed the feasibility of adopting the 1999 ANSI background noise limits after the previous meeting but had not come to an agreement. Dr. Fankhauser modified his petition in response to her concerns and presented it to the group. The testing providers and some employer representatives expressed concern that the ANSI levels would be infeasible for many affected parties, and that the modified petition was too different from the current Federal standard since it would also revise the audiometric testing protocol. There was general support for proposing a change to Appendix C based on the levels that Ms. McDaniel had presented at an earlier meeting.

Mr. Nakamura gave a brief review of the petition presented by Dr. Fankhauser to amend appendix C by adopting the 1999 ANSI levels for allowable background noise. At the last meeting in May of 2003, there had been an impasse between Dr. Fankhauser and Mary McDaniel who believed that the ANSI levels at the frequencies of 500 Hz and lower would be infeasible for most audiometric testing services and even some clinics. Mr. Nakamura explained to the group that there had been a meeting (phone conference) between Dr. Fankhauser, and Mary McDaniel to resolve the issues of disagreement on the proposed levels from the ANSI 1999 standard. Mr. Nakamura noted that there had not been any resolution, and that Dr. Fankhauser had also developed a modification to his petition, based on other data in the ANSI standard. Since only one or two of the attendees had seen this alternative, Dr. Fankhauser was asked to present his proposal.

Dr. Fankhauser:

What is the reason for changing the levels? To reduce interference during the testing process and get the most accurate information possible. The goal of testing is to provide solid, reliable results. The proposal affects program elements to give true and accurate data. This also means more replicable results (for instance, with construction testing).

Why not leave the standard alone? The existing standard dates back to 1960, with equipment that was far different from the current instruments, probably less accurate as shown by evaluation of the data for 8000Hz. The petition reflected newer technology and data that would make the testing better. The modified proposal would adopt the table of values for each frequency based on one standard deviation from the upward spread of masking at each frequency band interval, except that there would not be a limit at 500Hz, and there would be also be audiometric testing at 8000Hz. The values would have to be measured with a Type 1 sound level meter.

Ms. McDaniel objected that the current data that is produced is very accurate and reproducible, but agreed that the current levels for background noise are too high.

Dr. Fankhauser went on to say that the audiological professional organizations support ANSI 1999. He acknowledged that the concern is that mobile testing vehicles may not be able to meet the standard. Manufacturing companies who do their own testing have used various materials to attenuate the background noise with varying success at different frequencies.

Mr. Vaughn said that mobile test vans cannot meet all the levels of ANSI 1999; you need a 4 inch free standing wall to do that, and it is likely that many hospitals would not meet the lower frequencies, so he supports the McDaniel compromise levels.

Ms. McDaniel added that (referring to the new proposal to adopt audiometric testing at 8000Hz and drop 500 Hz) dropping 500 Hz would make the standard less effective than the Federal standard. Her review and compromise proposal accepts the ANSI levels for 1000 to 4000, and has a 5 dB bump at 500 Hz.

Her compromise was no limits for 125 and 250, and no requirement for a type 1 sound level meter to be used for this purpose, and the levels would be: 32-26-34-37-37.

(Note: the materials for the meeting had incorrectly stated 40 dB at 500, this was a level that had been discussed at one of the earliest meetings.)

Ms. Boatman asked what the ramifications would be for employers and employees?

Mr. Vaughn responded that to meet the ANSI standards, would probably require using inserts (instead of the standard over the ear phone sets) which takes longer because you have to change the inserts which get dirty, and people would need training to use the inserts. So, the cost would increase.

Mr. Coatsworth asked to clarify the use for inserts, and was told that there is increased attenuation of external noise because the phone is inside the aural canal.

Ms. McDaniel noted that OSHA letters say that the method can be used currently but it is a de minimis violation.

Mr. Lubiens added that he has anecdotal information that customers are not happy with one tester that uses the inserts.

Mr. Vocke noted that a significant number of testers may not be able to meet 21 dB at 500Hz or even the 32 –40 dB, and it should not be assumed that all providers can presently meet it. But they support the McDaniel compromise.

Ms. Broyles noted that by requiring newer technology, the employer is put at risk of being in violation of the standards, and there are higher penalties than before, so being more stringent than

Federal OSHA is not a good idea. There is also the complication of the “sue your boss law”. So, the chamber supports the McDaniel compromise.

Dr. Fankhauser asked if the audiologists use inserts, but they do not. He noted that he does use them and they are not as big a problem as stated, and not allowing them might mean that a smaller employer would have to send someone out for testing rather than have a van come to the site (with inserts).

Ms. Broyles asked what the actual cost for insert testing would be.

Ms. McDaniel said that there is a recalibration cost of 300 dollars and about 30 cents for each insert, as well as the added cost for the slower procedures.

Mr. Vocke asked if the process would take twice as long, and the answer was that it would not be that bad.

Mr. Nakamura interjected that if the insert earphone option was adopted, it would not be a de minimis violation anymore.

Ms. McDaniel noted that the purpose of testing is not to do a clinical evaluation but to evaluate changes in the hearing of the subject.

Mr. Vocke noted that in regulatory terms, it is screening.

Ms. Broyles admonished about using inconsistent terminology.

Dr. Fankhauser said that the cost for a regular test is 260 dollars, insert: 284, and the inserts cost 64 cents.

Merlyn said that there are about 4% referrals for further testing, etc.

Dr. Fankhauser said there is not a daily effect on testers.

Mr. Vaughn repeated that he sees no need for the low frequency limits.

Ms. McDaniel added that not all testers can now meet the proposal, necessarily.

ORC supports the McDaniel compromise, as does Beth Treanor’s group.

Laura Boatman said the main problem with the testing background is accuracy.

Ms. Stroup said they support the compromise but want to not exclude insert testing.

Mr. Nakamura wrapped the discussion saying that the consensus is support for the McDaniel compromise, the discussions on the insert earphone option would be continued in the future discussion of the construction hearing conservation proposal. He also thanked Dr. Fankhauser for his efforts in developing his petition, and making his presentations to the advisory group. Even though his original petition was not accepted in whole, the decision to propose the compromise to the Board as an amendment to Appendix C is a big step in promoting a better standard, and it would not have happened without his work.

## Lunch

Synopsis: the petition to require that personnel who perform audiometric testing to comply with Article 105 are certified by CAOHC was discussed. This proposal is made to improve the quality of audiometric testing that is provided within California by assuring that the personnel have received training that has been approved by a national association of professionals involved with occupational hearing issues (see footnote below). Employer representatives concurred that there are instances where the qualifications of a given technician seem questionable, but there is some concern that the requirement could impose a prohibitive cost on a service provider that would cause them to cease practice. Several attendees asked Ms. McDaniel to consider less restrictive language, and she agreed to meet with Mr. Vocke to discuss alternatives.

Ms. McDaniel started her presentation by thanking Dr. Fankhauser for his work on the petition to amend Appendix C.

Her petition addresses the qualifications for the technicians who conduct the audiometric testing. Her proposal is to require certification by the Council for Accreditation in Occupational Hearing Conservation. \* This is a national advisory body that develops instructional standards. CAOHC certified courses are given periodically in California for a set fee.

The reasons for her proposal are to:

- Eliminate bad technique
- Emphasize the significance of the requirements (to the techs)
- Teach methods to use for difficult subjects
- Teach the issue of tinitis
- Enhance employee counseling
- Teach regulations for testing and recordkeeping
- Increases the legal admissibility of the data
- Teach selection of hearing protection
- Better training
- Minimize variations in technique and improve accuracy
- Criteria for making referrals
- Establish more credibility with the subject

Also:

- Washington, Oregon, and the Dept of Defense have mandatory certification already.
- Groups such as NIOSH support CAOHC certification
- Training of audiometric testing technicians should be as rigorous as for technicians who do alcohol testing and other certifications.

Mr. Vocke asked if CAOHC is the only certifying body?

Ms. McDaniel said it is.

Mr. Vocke said that PGE has had problems with some service providers, and the problem of one certifying entity. Problems occur if the certification group keeps raising rates for the process. They would prefer to have a specific curriculum of training.

Ms. McDaniel said she could support establishing a list of criteria.

Mr. Vocke continued that there could be a specific list, or the requirement could say CAOHC or equivalent, but then who decides what is equivalent? Would a manufacturer be able to certify? Does CAOHC teach with only one line or type of instrumentation?

Ms. McDaniel said that the training is on the methodology, not the specific instrumentation.

Mr. Vocke added that CAOHC goes beyond the minimum instructions.

Ms. McDaniel agreed that there are two levels, a technician and a supervisory level.

Mr. Vocke said they are generally in favor of the proposal, with equivalence. Their concern is the small clinic that provides the only testing in a remote location which could decide that it is not worth it to do the testing anymore because certifying the technicians makes the whole thing too expensive for the limited return in business.

Ms. Treanor asked if Ms. McDaniel is open to reviewing alternative language for the proposal, and Ms. McDaniel said she was, using the criteria listed above as a starting point she could develop a basic requirement.

Mr. Vocke asked about clinical testing. Dr. Fankhauser said they would tend to move away from audiometric testing.

Ms. McDaniel noted it could restrict doctor qualifications.

Ms. Treanor said the listed items would be very helpful in general improving the quality of testing.

Ms. Boatman asked if anyone now could get the CAOHC training (the answer was yes).

Mr. Vocke asked if the equipment has to be certified.

Dr. Fankhauser replied that the instruments are relatively straightforward.

He also said that the managers of programs are the ones who get the program implemented; CAOHC's training approach is directed along those lines.

Mr. Lubiens said the realm of physicians is occupational medicine. DOD, MSHA and the state of Washington already require CAOHC certification.

Ms. Treanor said you cannot say "equivalent" since that implies that there is another regulatory body.

Mr. Vocke said they would have to go through the whole list to assure compliance.

Dr. Fankhauser noted a case where someone hires "Kelly Girls" to do the testing; you would have to certify CAOHC or comparable certification.

Ms. Treanor said that no, you need to demonstrate to an otolaryngologist.

Ms. McDaniel responded, that would not be a change.

Mr. Vocke said CAOHC specifies retraining (5 year refresher). The equivalency should also include that aspect for consistency.

Ms. McDaniel said she could use the list to make a list of competencies and it makes sense to retrain.

Mr. Smith asked how many clinics there are in the state? (No one knew).

Mr. Lubiens said there is a tendency to have a certified person responsible.

Mr. Vocke said there is the concern about remote clinics.

Ms. McDaniel asked if they have to send people in for drug or alcohol testing?

Mr. Smith suggested that there would be a way to demonstrate competency in an equivalent manner.

Ms. McDaniel agreed that it would be good to have such a demonstration.

Mr. Smith added that it is similar to the problem of people who want to show that their first aid programs are the equivalent of Red Cross training.

Mr. Vocke suggested looking at the forklift standard as a training/testing model.

Mr. Smith agreed that there should be core competencies.

Mr. Mitchell said there could be language to show competency and keep records.

Mr. Vocke said that CAOHC provides a way to accomplish a skill set for good testing but there should be other ways available. Their test providers are not doing the fitting or training that is covered by CAOHC.

Mr. Smith suggested the phrase, "trained in" and be able to demonstrate competency.

Mr. Vocke suggested that he and Ms. McDaniel could form a subcommittee that could propose less restrictive language, and Ms. McDaniel agreed to do that. They would send any proposal to the Division for discussion at the next advisory meeting.

Mr. Smith admonished that this meeting had not been attended by all the groups that might be affected by this proposal, and there could be more resistance at the next meeting.

Meeting adjourned.

\*The CAOHC Council consists of two representatives from each of the following organizations:

American Academy of Audiology (AAA); American Academy of Otolaryngology-Head and Neck Surgery (AAO-HNS); American Association of Occupational Health Nurses (AAOHN); American College of Occupational and Environmental Medicine (ACOEM); American Industrial Hygiene Association (AIHA); American Society of Safety Engineers (ASSE); American Speech-Language-Hearing Association (ASHA); Institute of Noise Control Engineering of the United States of America (INCE/USA); Military Audiology Association (MAA).