

When an Employee Doesn't Meet the Agency's Hearing Standard **An Overview for Federal Supervisors and Medical Standards Program Managers**

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Introduction

Agency managers frequently are faced with a need to make decisions regarding such things as granting waivers, approving restrictions or accommodations, or taking personnel action when employees are unable to meet medical standards. A medical standard issue commonly encountered is related to a hearing deficit, or the inability to hear well enough to meet the established standard. A hearing deficit may be due either to sudden or gradual loss of normal hearing, or to a lack of normal hearing as a result of congenital causes. This brief guide is intended to assist supervisors and program managers to evaluate the possible significance of a hearing deficit, and things to consider when an employee is unable to meet an agency hearing standard.

Please Note: This guide is intended for general informational purposes only. It reflects the views of the authors, but is not intended to replace or supersede more comprehensive, authoritative, or official agency or professional standards, guidelines, or policies.

Basis for Hearing Standards

A hearing standard may be established for a group or classification of employees when the ability to hear has been identified as pertinent to the safety of employees and the efficient performance of their job duties. The specific standard or hearing level required for a job is identified and established through a process that involves making worksite observations and gathering information from employees, supervisors, and medical and safety professionals, then giving careful consideration to the volume or loudness of sounds that must be heard accurately for communication and for detecting and accurately interpreting other pertinent work-related sounds. It is recognized that this communication and sound detection activity may have to be conducted under particular circumstances and environmental conditions that may not be present when hearing testing is conducted in a clinic situation.

Legal Requirements

While this brief guide is not intended as a substitute for the expertise of professional human resources personnel, or the more complete manuals and guidelines available from other agencies, such as the Office of Personnel Management, the manager should be aware of some pertinent regulations as they consider appropriate actions to take when an employee or applicant does not meet a hearing standard. According to Federal law (5 CFR 339.102(c)), "*failure to meet a properly established medical standard or physical requirement ... means that the individual is not qualified for the position unless a waiver or reasonable accommodation is indicated...*" As a result, if an individual's hearing deficit is so severe that they cannot meet the agency's established hearing standard, some type of response is necessary, either by the employee or by management. This may include such actions as: waiving the standard if the individual can

demonstrate that they can perform the essential functions of their job safely and efficiently despite the hearing deficit; providing a waiver accompanied by agency-mandated restrictions in order to minimize the risks related to the hearing deficit; providing a reasonable accommodation if the employee is found to be a qualified disabled individual; arranging for a transfer to another position where an individual's ability to hear is less critical; or termination of employment.

Waivers

Federal law (5 CFR 339.204) requires an agency to “*waive a medical standard or physical requirement... when there is sufficient evidence that an applicant or employee... can perform the essential duties of the position without endangering the health and safety of the individual or others.*” So, despite a hearing loss, if, an individual demonstrates a current and true ability to safely and efficiently perform the requirements of a job, under all of the likely conditions and circumstances that may be encountered during the course of carrying out that job, the standard must be waived. In some cases, a waiver may be accompanied by agency-mandated restrictions that are intended to minimize potential risks related to the hearing deficit.

Accommodations

Federal law (29 CFR 1614.203, the “Rehabilitation Act”) requires managers to “*make reasonable accommodation to the known physical or mental limitations of an applicant or employee who is a qualified individual with handicaps unless the agency can demonstrate that the accommodation would impose an undue hardship on the operations of its program.*” A qualified individual means “*an individual with handicaps who, with or without reasonable accommodation, can perform the essential functions of the position in question without endangering the health and safety of the individual or others,*” and meets the other requirements for the position.

The granting of waivers, accommodations, and restrictions should never be considered as an automatic response when a hearing deficit is encountered. Each case must be considered on a strict case-by-case basis to ensure that the most appropriate course of action is taken, for the safety of the individual and for benefit of the agency.

Agency Response to a Hearing Deficit

How is an employee's hearing recorded, and what does it mean? How does a manager know if an employee's hearing deficit poses a safety risk or may be undermining the efficiency of the program? What are the safety risks associated with a loss of the normal ability to hear? When can (or should) management grant a waiver (with or without restrictions), a step that means, for that particular employee, management is going to allow the employee to continue to work despite the failure to meet an established standard? What types of accommodations are possible, and reasonable, in response to an employee's loss of normal hearing? This overview will address these questions to help guide the manager to respond in a fair and responsible way when an employee is unable to meet the hearing standard.

Audiograms and what they mean

As used within standard clinical and occupational practice, an audiogram is a printed record of the results of an individual's hearing test. The test, when performed correctly, provides an accurate summary (for each ear separately) of the volume that specific sound frequencies must be presented to a person under controlled circumstances in order for them to be

conscious of those sounds and for them to trigger a device to record that the sound was heard. The standard frequencies used for an audiogram generally include 500 cycles per second (recorded as Hertz, or Hz), which is a fairly low or deep sound, plus 1000 Hz, 2000 Hz, 3000 Hz, 4000 Hz, 6000 Hz, and 8000 Hz. That last value, 8000 Hz, is a fairly high-pitched sound to the human ear. Most people can hear sounds of sufficient volume within these frequencies, which include the frequencies where much of our speech takes place (about 500 to 3000 Hz). The volume of sound that must be presented in order to be heard by an individual is measured in decibels (dB), and ranges from 0 to above 100 dB. Because of the unique way that sound volumes are recorded and testing has been standardized, some individuals with particularly acute hearing can hear sounds that are recorded as having intensity levels of -5 dB, or even lower.

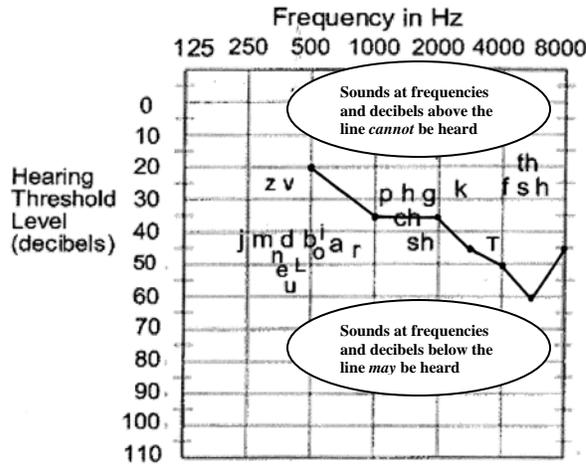
Examples Of The Decibel Levels Of Some Common Sounds	
Decibels	Activity or source of sound
0 dB	The volume at which a person with normal hearing can hear a sound at least 50% of the time
10 dB	The rustle of leaves
20 dB	Water dripping
30 dB	A whisper
40 dB	A quiet radio in room
50 dB	Moderate rainfall
60 dB	Normal conversation, or a dishwasher
70 dB	Busy traffic, or a vacuum cleaner
80 dB	An alarm clock ringing
90 dB	A lawnmower
100 dB	A snowmobile, or a chainsaw
110 dB	Rock music
120 dB	Jet plane takeoff, and where noise becomes painful for most people

The results of an employee's audiogram might look something like what is presented in the following table. For comparison purposes, the medical standard has been included along the bottom row, and the dB thresholds highlighted in **red** show the results that don't meet the standard. In addition, this example highlights in **yellow** those results that, while not covered by the standard, nevertheless may be important when considering the individual's hearing ability in an occupational setting:

Hz	.5k	1k	2k	3k	4k	6k	8k
R	20	35	35	45	50	60	45
L	10	15	55	65	75	70	55
Std.	40dB	40 dB	40 dB	40 dB	-	-	-

The above results are normal at the very low frequencies (.5k in both ears, and 1k on the left). However, the results begin to worsen quickly and don't meet the standard on the left at 2000 Hz, or in either ear at 3000 Hz. Hearing is quite poor in both ears at the frequencies above the agency standard, and the slight "improvement" you see at the higher frequencies is typically observed in hearing loss due to chronic noise exposure.

The diagram below presents the audiogram results for the right ear from the table above, superimposed on a graph that shows approximately where certain speech sounds fall, both by loudness and by frequency, during normal conversation. As you can see, the softer sounds,



such as **th**, **sh**, and **f**, are found at higher frequencies, as are most of the hard consonants, such as **k** and **t**, and most consonants actually are spoken more softly than vowels tend to be. If a person loses hearing acuity in the mid- to upper-frequencies, such as from 2000 to 6000 Hz, they may have difficulty picking out these sounds and may misinterpret words that use them, unless they are spoken particularly loud, which itself can lead to distortion. The difference in how consonants and vowels are spoken (high versus low pitch, and louder versus softer volume) contributes to the

way hearing loss interferes with a person's ability to understand what is said. A person whose hearing loss is similar to that in the diagram likely would hear the sounds that fall below the line, but would have difficulty hearing the sounds above the line.¹

Levels or degrees of hearing loss have been defined in a variety of ways over the years by different organizations. One approach, presented in the International Journal of Audiology², uses the following categories of hearing loss:

Normal (implied):	20 dB or less
Mild:	>20 and ≤ 40 dB
Moderate:	>40 and ≤ 60 dB
Severe:	>60 and ≤ 90 dB
Profound:	>90 dB HL

Another approach, which is used by the National Institute for Occupational Safety and Health (NIOSH)³, is the following:

Normal:	-10 – 25 dB
Mild:	26 – 40 dB
Moderate:	41 – 55 dB
Moderate/severe:	56 – 70 dB
Severe:	71 – 90 dB
Profound:	91 – 100 dB or more

¹ The above graphic and the information regarding the symptoms of hearing loss are modified from information provided by a commercial site, Hound Dog Hearing, <http://www.hdhearing.com/index.htm>

² RH Margolis, GL Saly: International Journal of Audiology, Volume 46, Issue 12 December 2007, pp 746 - 758

³ National Institute for Occupational Safety and Health: Inquiring Ears Want to Know; A fact sheet about your hearing test, <http://www.cdc.gov/niosh/mining/pubs/pdfs/2008-102.pdf>

A third approach, which is used by the American Speech/Language Hearing Association (ASHA)⁴, is the following:

Normal:	-10 – 15 dB
Slight:	16 – 25 dB
Mild:	26 – 40 dB
Moderate:	41 – 55 dB
Moderately severe:	56 – 70 dB
Severe:	71 – 90 dB
Profound:	91 + dB

As you can see, the definitions and ranges that are used may vary. However, the specific terms used to define a range of hearing, and the cut-off values for those ranges themselves, are not critical for the purposes of this guide. What is important is the functional deficit that might be expected when an individual has less than normal hearing. For example, using general categories (for discussion purposes only, and not with reference to any specific scale presented above):

With a **mild hearing loss**, a person may be unable to hear soft sounds, or a whispered conversation in a quiet room. They likely would be able to hear a normal conversation in a quiet room but would have difficulty doing so in a noisy environment.

With a **moderate hearing loss**, a person may have considerable difficulty hearing a normal conversation in a quiet room. If there is background noise, the individual may not be able to understand many of the words without the ability to lip read.

With a **severe hearing loss**, a person may not be able to hear a conversation at all unless the speaker speaks loudly.

With a **profound hearing loss**, a person may not be able to understand speech even if the speaker speaks very loudly, and may only hear very loud sounds, such as a chainsaw.

Because we localize where sounds come from by a sophisticated mechanism in the brain that uses the time that a sound reaches one ear versus the other, as well as differences in loudness, the variety of frequencies, and a combination of these factors in the way sound reaches the two ears, hearing loss in one or both ears may disrupt the process of sound localization. Hearing aids may further disrupt this process of sound localization because they interfere with the timing, the intensity, and the complex variety of frequencies that the brain depends upon when attempting to identify the source of a sound. That is one of the reasons hearing aids may not be allowed under the medical standards for some jobs. Other reasons may involve the mechanics of hearing aids, including risk of damage to the electronics, battery failure, and sensitivity to water or dirt that may be encountered and present safety risks in particular work settings.

⁴ American Speech/Language Hearing Association: Type, Degree, and Configuration of Hearing Loss, <http://www.asha.org/public/hearing/disorders/types.htm>

Does the hearing deficit pose a safety risk or undermine the efficiency of the job?

It may. Depending on the workplace hazards, or the functional requirements of the particular job, a hearing deficit may result in a heightened risk of injury or communication error if it becomes too severe. An analysis of the types of work place hazards, and the importance of accurate verbal communication, is necessary in order to determine the level of hearing necessary and the types of risk posed by a deficit in hearing.

Safety risks associated with a hearing deficit

Not hearing a verbal direction correctly, or missing the warning provided by a piece of equipment that is malfunctioning, or not knowing where a hazard is coming from may present a major, or minimal, risk to an employee. Standards are established with the intent to take these factors into consideration.

Granting a waiver for a hearing deficit

A waiver may be granted when, in the judgment of a deciding official, an individual who does not meet a medical standard has demonstrated that they have sufficient experience, skills, or knowledge that they are able to carry out a job or function safely and efficiently despite their hearing deficit. In this situation, the requirement to meet the standard is waived for that individual for the current evaluation cycle, but the issue should be re-evaluated every time an examination or evaluation normally would be conducted for that individual, and every time there is a significant change in job duties or the work environment. This is intended to ensure that the individual continues to be able to perform the duties safely and efficiently. The factors discussed in the preceding sections should be considered when making this sort of decision.

Granting a waiver with restrictions for a hearing deficit

A waiver with restrictions may be granted when, in the judgment of a deciding official, an individual who does not meet a medical standard has demonstrated that they have sufficient experience, skills, or knowledge that they are considered to be able to carry out a job or function safely and efficiently despite their hearing deficit if certain steps or actions are taken that are intended to minimize the risks presented by that deficit. This may involve such measures as a requirement to use ear buds on hand-held radios, standing near the presenter at all safety briefings, or informing co-workers about the hearing deficit so they are aware of the possibility of miscommunications or missed warnings. These restrictions should be specified based on unique aspects of the hearing deficit, the circumstances of the job, and the environment in which it is to be carried out.

Reasonable accommodations for an employee with a hearing deficit

As noted on page 1, the Rehabilitation Act requires the accommodation of disabled individuals if the individual is qualified and the accommodation is reasonable. In other words, it would not impose an undue hardship on the operations of the agency. Determining if an accommodation would pose such hardship depends on:

- “(i) The overall size of the agency's program with respect to the number of employees, number and type of facilities and size of budget;*
(ii) The type of agency operation, including the composition and structure of the agency's work force; and
(iii) The nature and the cost of the accommodation.”

According to the Act, reasonable accommodation *“may include, but shall not be limited to:*
(i) Making facilities readily accessible to and usable by individuals with handicaps; and
(ii) Job restructuring, part-time or modified work schedules, acquisition or modification of equipment or devices, appropriate adjustment or modification of examinations, the provision of readers and interpreters, and other similar actions.”

These factors, among others that may be applicable to the individual and local circumstances of the job, must be considered when a determination is to be made regarding whether or not an accommodation can or should be granted. Any accommodation that is to be considered for an employee must have an established, direct, risk-avoidance or task-accomplishment value related to the specific medical condition(s). Most medical standards have associated with them some form of narrative or description of the “basis” for the standard, and it may be helpful to review this information when considering whether an accommodation is appropriate.

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