

TABLE 45-A
PREFERRED FREQUENCIES FOR
ACOUSTICAL MEASUREMENTS
(American Standard S1 6)

<i>Center Frequency (Hz)</i>	<i>Bands (Hz)</i>	
31 5	22 3 to	44 6
63 0	44 6 to	89 2
125	88 4 to	177 0
250	177 0 to	354 0
500	354 0 to	707 0
1,000	707 0 to	1,414 0
2,000	1,414 0 to	2,828 0
4,000	2,828 0 to	5,656 0
8,000	5,656 0 to	11,310 0
16,000	11,310 0 to	22,620 0
Overall	All pass	

Noise-exposure measurement should be undertaken only by personnel with training and experience in making physical measurements with electronic equipment (Fig 45-4) (Readers wishing further information on the techniques of noise measurement should consult the references listed under "Noise-Exposure Analysis" at the end of this chapter)

Glossary of terms

This glossary has been adapted from the *Guide for Industrial Audiometric Technicians*, published by the Safety and Health Services, Employers Insurance of Wausau, Wis., and from American Standard S11, *Acoustical Terminology*

AAOO The American Academy of Ophthalmology and Otolaryngology is a professional organization of medical specialists who establish standards pertaining to vision and hearing. It is also the sponsor of the Subcommittee on Noise Research Center

AMA HEARING IMPAIRMENT FORMULA The American Medical Association, with the support of the American Academy of Ophthalmology and Otolaryngology, has established a formula for evaluating hearing impairment based on the average of the hearing levels of the three speech frequencies of 500, 1000, and 2000 Hz

ACOUSTIC, ACOUSTICAL Means containing, producing, arising from, actuated by, related to, or associated with sound. Acoustic is used when the term being qualified designates something that has the properties, dimensions, or physical characteristics associated with sound waves, acoustical is used when the term being qualified does not designate explicitly something that has properties, dimensions, or physical characteristics

ACUITY This sense pertains to the sensitivity of hearing

AIR BONE GAP The difference in decibels between the hearing levels for a particular frequency as determined by air conduction and bone conduction

ATTENUATE To reduce in amount as in audiometry by turning the hearing level dial in units of 10 or 5 decibels in order to obtain a threshold of hearing

ATTENUATION The reduction, expressed in decibels, of the sound intensity at a designated first location as compared with sound intensity at a second location, which is acoustically farther from the source

AUDIBLE RANGE The frequency range over which normal ears hear—approximately 20 Hz through 20,000 Hz. Above the range of 20,000 Hz, the term ultrasonic is used. Below 20 Hz, the term subsonic is used

AUDIBLE SOUND Sound containing frequency components lying between 15 and 20,000 Hz

AUDIOGRAM A record of hearing loss or hearing level measured at several different frequencies—usually 500 to 6000 Hz. The audiogram may be presented graphically or numerically

AUDIOLOGIST A person trained in the specialized problems of hearing and deafness

AUDIOMETER A signal generator or instrument for measuring objectively the sensitivity of hearing in decibels referred to audiometric zero

AUDIOMETRIC TECHNICIAN A person who is trained and qualified to administer audiometric examinations

AUTOMATIC AUDIOMETRY The method