

Industrial Audiometric Business Authorization Process

Under section 7.8 of the Occupational Health and Safety Regulation, employers in B.C. must ensure that hearing tests are administered to workers only by hearing testers (also known as industrial audiometric technicians or IATs) who are authorized by WorkSafeBC. This document describes the requirements and process for industrial audiometric businesses (IABs) to obtain and maintain authorization to provide industrial audiometry in B.C. for the purposes of the Regulation.

1.0 WorkSafeBC's authority

WorkSafeBC has established the following to authorize and regulate IATs and IABs:

- Requirements to become an authorized IAT and subsequent review and authorization of candidate applications
- Standards for the conduct of authorized IATs regarding administration and management of hearing test records
- Standards for the equipment and facilities used by IABs for hearing tests

Where the above standards and requirements are not met, WorkSafeBC may investigate the situation, provide the IAT or IAB an opportunity to respond, and suspend or remove the IAT's and/or IAB's authorization where appropriate.

2.0 Minimum requirements for an authorized testing facility

WorkSafeBC authorizes IABs that have fixed or mobile testing facilities and IABs that conduct testing without an audiometric booth. Each facility or testing location must meet the following requirements:

2.1 Fixed facilities

2.1.1 As set out in CSA Standard Z107.6-16, a fixed testing facility must constitute a permanent installation built inside a larger facility, such as in a building on site or as part of a medical test centre.

2.1.2 The testing facility must be in a location as quiet as practicable inside the premises, away from busy hallways and noisy equipment, to meet the acoustical requirements in clause 2.4.2. (Under the Regulation, the term “practicable” means “that which is reasonably capable of being done.”)

2.2 Mobile facilities

2.2.1 A mobile testing facility refers to an installation built as a self-contained portable facility that can be deployed to a temporary location.

2.2.2 At each location visited, the IAT must take all precautions to ensure that the mobile testing facility is located as far as practicable from sources of excessive noise and vibration to meet the acoustical requirements in clause 2.4.2.

2.3 Testing without a booth

2.3.1 Hearing tests conducted without a booth (“boothless audiometry”) involve audiometers that use headphones designed to reduce ambient noise levels. Before purchasing a boothless audiometer, email industrialaudiometrics@worksafebc.com to ensure that the audiometer is approved by WorkSafeBC.

2.3.2 Such testing must be conducted in a location as quiet as practicable. If a location that meets the acoustical requirements for maximum permissible ambient noise levels in clause 2.4.2 cannot be located, testing cannot occur.

2.4 General requirements for all testing locations

2.4.1 Space requirements

2.4.1.1 The testing space must be a self-contained room or area of at least 50 square feet (4.6 square metres).

2.4.1.2 If acoustical requirements are met by use of sound-treated booths, the maximum number of booths per testing space is two.

2.4.1.3 If testing occurs without a sound-treated booth (“boothless audiometry”), only one person can be tested at a time.

2.4.1.4 A separate space must be available to allow private individual counselling of workers. This area shall ensure good face-to-face communication and an adequate level of privacy when carrying out conversations at a raised voice level, as might be required for some individuals with hearing loss. Privacy may not be achieved by leaving other workers inside a test booth or outside the facility to await their turn for counselling.

2.4.1.5 The testing facility must be designed in such a way that the worker always remains

visible to the IAT, by means of a window, mirror, or surveillance camera. If testing is done without a booth, the worker must be under direct observation of the IAT. However, the individual being tested must not be able to observe operations of the audiometer controls by the IAT.

2.4.1.6 Like all employers, IABs are required to protect their workers, and any other workers at their workplaces, from hazards. Hazards include biological agents that cause infectious disease. An infection control plan must be in place. (See the WorkSafeBC publication *Controlling Exposure: Protecting Workers from Infectious Disease*.)

2.4.1.7 Each IAT must display their current authorization from WorkSafeBC to conduct hearing tests. The IAT may display the authorization in the testing location, or the IAT may wear it. Testing is not permitted by persons with expired certificates.

2.4.2 Maximum permissible ambient noise levels (MPANLs)

2.4.2.1 The ambient noise levels inside the testing area must not exceed levels specified by ANSI Standard S3.1-1999 (R2013).

The MPANLs for industrial testing in a test booth with supra-aural headphones are as follows:

Hz	125	250	500	1000	2000	4000	8000
dB	49.0	35.0	21.0	26.0	34.0	37.0	37.0

The MPANLs for industrial testing using dome headphones are as follows:

Hz	125	250	500	1000	2000	4000	8000
dB	39.0	32.0	34.0	37.0	41.0	52.0	53.0

2.4.3 Equipment requirements

2.4.3.1 The testing location must be equipped with audiometer(s) that meet the current standard (ANSI Standard S3.6-2010) for at least Type 4, and the following additional requirements:

- a) Minimal set of test frequencies shall be 500, 1000, 2000, 3000, 4000, 6000, and 8000 Hz.
- b) The minimal range in signal level at each frequency shall be from 0 to 90 dB HL, but an expanded range from -10 to 100 dB HL is recommended.

2.4.3.2 To maintain authorization, the IAB must provide proof of annual audiometer calibration, conducted by a service provider acceptable to WorkSafeBC. IABs must be prepared to submit proof of calibration upon request.

2.4.3.3 The testing location must be equipped with at least one double power outlet for each booth and audiometer.

2.4.3.4 Samples of hearing protection devices (HPDs) typically provided by workers' employers must be available for use by the IAT in counselling workers on fit, care, and use of HPDs. To ensure an adequate variety of hearing protection for proper counselling of workers throughout B.C., at least one of each of the following types of HPDs must be on display in all testing locations:

- a) Class A and Class B earmuffs (including helmet mount sample)
- b) Compressible earplugs
- c) Pre-formed reusable earplugs
- d) Custom moulded earplugs
- e) Canal caps or headband plugs

The IAB must also make information available about level-dependent HPDs and HPDs for those with hearing loss.

3.0 Additional requirements for an authorized mobile testing facility and boothless audiometry

3.1 Noise measuring equipment

3.1.1 Noise monitors are required in all mobile testing facilities and when conducting boothless audiometry. The noise monitor shall be calibrated by an authorized audiometric supplier and installed for easy viewing by the IAT to indicate when testing must be paused. The monitor must be capable of ensuring that the maximum permissible ambient noise levels, as set by ANSI Standard S3.1-1999 (R2013) and outlined in clause 2.4.2, are not exceeded during testing.

3.1.2 Testing must be paused if permissible ambient noise levels are exceeded. If possible, noise monitors should be integrated with audiometers and set up so that testing is automatically paused if permissible noise levels are exceeded.

3.1.2.1 If the noise monitor is not integrated and set to pause testing, a noise monitor log documenting paused testing must be maintained and presented to a WorkSafeBC officer upon request.

3.2 Safety requirements

3.2.1 The mobile testing facility must have adequate stability. Stabilizing jacks may be necessary during testing.

3.2.2 Access to the testing location must meet general safety requirements. A handrail on the outside is usually required for mobile testing facilities.

4.0 Authorization process for industrial audiometric businesses

4.1 Application and authorization process

4.1.1 The applicant must submit a **signed application form**. WorkSafeBC reserves the right to request further information from an applicant.

4.1.2 If an IAB obtains an additional testing facility or an audiometer intended for testing without a booth, the IAB must submit a separate application form.

4.1.3 WorkSafeBC will conduct an inspection of the proposed testing facility (if applicable). Any deficiencies noted by WorkSafeBC must be remediated before authorization will be granted.

4.1.4 The applicant must have IATs who are authorized to conduct hearing tests by WorkSafeBC (see **Industrial Audiometric Technician (IAT) Authorization Process**).

4.1.5 Each authorized IAB will be issued a unique industrial audiometric business number (IAB#) by WorkSafeBC.

4.1.6 If an IAB wishes to perform hearing tests for workers in the construction industry, it must respond to WorkSafeBC's Request for Proposal (RFP) #030-2019. This RFP is currently posted on the BC Bid website, bcbid.gov.bc.ca. It is a continuous RFP.

5.0 Modification of facility

If an IAB proposes to modify a testing facility, the IAB must submit a plan of the modification to WorkSafeBC. Written authorization from WorkSafeBC must be obtained before commencing work.

6.0 Advertising by industrial audiometric businesses

Except as set out below, no IAB may advertise or promote its relationship with WorkSafeBC; or use WorkSafeBC's name, official marks, or trademarks; or use the name or image of any worker the IAB tests for any purpose related to advertising, promotion, publications, or mailing lists, whether verbally or in written form.

An IAB may use the following statement in its advertising, provided that the statement is not the purpose or focus of the advertising and is in a smaller font than the IAB's (provider's) name:

Authorized to conduct industrial hearing tests under the British Columbia Occupational Health and Safety Regulation.

7.0 Hearing test data

7.1 Maintenance of hearing test records

7.1.1 Authorized IATs are required to submit the results of hearing tests to WorkSafeBC in the manner prescribed by WorkSafeBC. WorkSafeBC maintains a database of hearing test results. Employers can access the test results for their workers and reports through the online services for employers on worksafebc.com. Each report includes a breakdown of each hearing test by type and category. Employers should use these reports to determine the rate and extent of occupational hearing loss in their workers when reviewing their hearing conservation programs on an annual basis.

7.1.2 If an audiometer uploads data to software, it is the IAB's responsibility to ensure that all storage of personal information meets the requirements of privacy legislation. In B.C., the *Personal Information Protection Act* (PIPA) applies to the private sector, and the *Freedom of Information and Protection of Privacy Act* (FIPPA) applies to the public sector.