

Controlling sound levels & hearing loss prevention

Introduction

Theater Rotterdam wants to present its performances and events to audiences in the best possible manner. Quality, hospitality, and comfort play an important role, but we must also guarantee the safety of our guests and our employees.

We have learned from experience that sometimes performances and events produce high levels of sound pressure.

High sound pressure can also be a health risk. The government, branch organisations and so too Theater Rotterdam recognise the risks which is why we take precautionary measures.

Covenant

With this protocol for the safety of its guests and its employees, Theater Rotterdam adheres to *Het Vierde Covenant Preventie Gehoorschade Versterkte Muziek* (the Fourth Covenant for the Prevention of Hearing Loss by Amplified Music) drawn up under the authority of the Ministry of Health, Welfare and Sport (6 December 2023). The full text of the covenant can be found [here](#).

Protocol

The protocol is about controlling the sound pressure our audiences are exposed to. The protocol applies to all activities undertaken by Theater Rotterdam including all third-party activities that Theater Rotterdam is responsible for.

For the protection of our employees, Theater Rotterdam has adopted rules recorded in the “Branch Catalogue [Amplified Sound](#)”. The management of Theater Rotterdam instructs all its employees about the dangers of being exposed to high sound pressure and Theater Rotterdam actively enforces its prevention policy on the floor during events.

Sound limits

In the covenant members agreed that audio emissions will be limited: the average sound level will not exceed 103 dB(A). ‘Sound level’ is defined as the L_{eq} level in dB(A) measured over a period of 15 minutes. *This applies to all persons over the age of 18 who can be expected to have access to hearing protection.* *

[* Various organisations including the NVVS and WHO urged members of the Lower House of Parliament to set the limits at 100dB; however, the deputy minister disagreed. Instead, the member branch organisations promised to do more about prevention. They also promised to reach the maximum levels as little as possible and to stimulate concerned professionals in the chain to work together to lower sound levels where possible while retaining an optimal experience.]

For age groups under 18 the following maximum sound levels apply:

- a. ages 0 to 13: L_{eq} =91 dB(A), measured over 15 minutes
- b. ages 14 and 15: L_{eq} =96 dB(A), measured over 15 minutes
- c. ages 16 and 17: L_{eq} =100 dB(A), measured over 15 minutes

It is important that it is clearly stated in the covenant that all parties strive to reach the maximum sound level as little as possible. This means that the abovementioned levels are considered the highest limits. If it is in any way possible, lower levels are the preference. There is an obligation to make every effort to keep sound levels as low as possible.

Measurements

Sound measurements are taken in places designated by Theater Rotterdam with equipment of Theater Rotterdam. The sound pressure level will be measured for the duration of musical activities with the appropriate equipment (*minimally IEC 61672:2003, class 2*). The sound measurements are then entered in a logbook. Data will only be shared if there is cause. All auditoriums in Theater Rotterdam are equipped with calibrated measuring equipment. In the case of performances on location measurements will be made with an appropriate mobile sound pressure meter. Sound technicians will be instructed on how to use the measuring equipment and how to interpret the data.

Should maximum sound levels be exceeded, the responsible attending technician will be held accountable. Guest technicians exceeding maximum sound pressure levels will first be approached by technicians of Theater Rotterdam. If this does not result in the desired effect, the issue will be escalated.

To be clear: exceeding the maximum Leq values is not permitted.

If sound levels are expected to exceed the 96 dB(A) norm, companies must indicate this in the *Productie Risico Inventarisatie en Evaluatie* (PRI&E – Production Risk Assessment and Evaluation).

Hearing protection

Affordable hearing protection with sufficient noise reduction (*minimum SNR 17*) is available for visitors on location.

Providing information

If sound levels at the location of the music event exceeds 96 dB(A), the public will be informed by Theater Rotterdam in an adequate manner before and during the (music) activity. The communication must refer to the expected sound levels, the risks of hearing loss and the various measures to prevent hearing loss. The communication must be expressed in such a way that all visitors could easily have been informed about this.

Therefore the current indication is still applicable: ‘Intense sound levels during the performance! Hearing protectors are available, ask one of our employees’.

The house rules include the following message:

“During performances you may be exposed to sound levels higher than 96 dB(A).

Theater Rotterdam will inform you to the best of its ability and ensure that earplugs are available at all the entrances of the auditorium.

Theater Rotterdam will not accept any liability for potential damages incurred by high sound levels. Therefore, if you attend performances at Theater Rotterdam you do so at your own risk.”

Employees of Theater Rotterdam adhere to the agreements contained in this protocol. This protocol will be mentioned as efficiently as possible in all communications. It is mandatory to enter high sound pressures during all performances and events in the *Productie Risico Inventarisatie & Evaluatie (PRI&E – Production Risk Assessment and Evaluation)*.

The protocol must be included and referred to in all contracts made with production companies and the protocol will also be published on the website of Theater Rotterdam in the Dutch and English language.