

Title:
Hearing Conservation

1.0 INTRODUCTION

This instruction outlines procedures to protect and preserve hearing for employees at NB Power.

2.0 SCOPE

This standard applies to all employees (including contractors and subcontractors) working for NB Power, unless indicated otherwise. Contractors and subcontractors are expected to have a hearing conservation program that meets regulatory requirements.

3.0 REFERENCES

NB OHS General Regulation 91-191	New Brunswick Occupational Health and Safety Regulation 91-191 Part V
AECOM Guidance	Occupational Noise Induced Hearing Loss.pdf
CSA 107-16	Canadian Standards Association (CSA) Hearing Loss Prevention Program (HLPP) Management
WorkSafe NB	WorkSafe NB Noise and Hearing Conservation Program ohsguide.worksafenb.ca/topic/noise.html
CSA 107.6-16	Canadian Standards Association (CSA) Audiometric Testing for use in hearing loss prevention programs.
CSA-Z107.56	Canadian Standards Association (CSA) Measurement of Noise Exposure
CSA Z94.2-14	Canadian Standards Association (CSA) Hearing protection devices - Performance, selection, care, and use

4.0 TERMS AND DEFINITIONS

Hearing Conservation	a hearing protection code of practice when noise exposure exceeds, or is believed to exceed, the noise exposure limits.
Decibels (dB)	a logarithmic unit used to measure the intensity or volume of a sound.
Dosimeter	An instrument designed to be worn during all or part of the day as a personal monitor in order to measure the wearer's noise exposure
Hearing Protective Equipment	specialized wearable devices designed to reduce the intensity of sound waves reaching the inner ear. Its primary purpose is to prevent noise-induced hearing loss (NIHL) and auditory damage in environments with hazardous or excessive noise
Personal Attenuation Rating	the rating for a given hearing protection device used to estimate the noise attenuation the device provides for an individual.
Attenuation De-rating	Attempts to correct the discrepancy between laboratory testing and real-world attenuation
Noise Reduction Rating	a single-number rating that indicates the overall hearing protector attenuation, computed as the difference between the C-weighted level of a noise spectrum having equal energy per octave band and

	the A-weighted noise levels under a hearing protector, using mean attenuation data less two standard deviations, derived from the US EPA's interpretation of the experimenter-fit procedure of ANSI S3.19
Noise-induced hearing loss	a permanent, irreversible depletion of hearing caused by damage to the sensitive hair cells in the inner ear from loud sounds
Exposure Assessment	calculates the amount, frequency, and duration a person or population interacts with a hazardous agent
Standard Threshold Shift	a measurable, average change in hearing sensitivity of ≥ 10 dB at 2000, 3000, and 4000 Hertz (Hz) in either ear, compared to an employee's baseline audiogram
Attenuation	The reduction in sound pressure incident upon the ear due to the application of a hearing protector
Custom Hearing Protection	Hearing protective equipment that have been fabricated to fit each individual ear
Lex	the steady sound level in dBA which, if present in a workplace for 8 h/day, would contain the same total energy as that generated by the actual and varying sound levels to which a worker is exposed in their total workday, however long or short.
Noise Exposed Worker	Workers who are exposed to noise greater than 85 dbA Lex
Audiometric testing	Air-conduction hearing tests in which workers respond to pure-tones in order to determine their hearing threshold levels

5.0 ROLES AND RESPONSIBILITIES

5.1 Site/Division Manager

- Ensure noise levels are tested and signage posted in accordance with this standard
- Ensure expectations are established to procure low noise assets where feasible
- Ensure engineering controls are prioritized for controlling noise hazards
- Ensure hearing protection is readily available as per this standard
- Ensure site/division must ensure noise hazards and expectations are communicated in orientation
- Ensure noise exposed employees participate in training, audiometric testing, and ear plug fit testing every 2 years

5.2 Supervisor

- Ensure noise exposed employees participate in training
 - Ensure noise exposed employees complete audiometric testing and fit testing every 2 years
 - Ensure employees wear Hearing Protective Devices in high noise areas and for high noise tasks
 - Notify the health and safety representative about changes (e.g. process, equipment, condition) that could change the noise levels or requirements of permanent regulated areas.
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5.3 Employee

- Noise exposed employees participate in training as required
- Noise exposed employees participate in audiometry testing and fit testing
- Use controls such as PPE as directed when required
- Report concerns related to noise and Hearing Protective Equipment to supervisors.

5.4 Health and Safety

- Support site/division specific implementation of this standard
- Serve as primary contact for site/division questions and inquiries about noise and hearing conservation
- Under the direction of Industrial Hygiene, perform noise monitoring and worker dosimetry as required
- Escalate concerns to Industrial Hygiene and Audiometric Technicians / Nurses as required.
- If noise exposed, participate in training, audiometric testing and fit testing

5.5 Industrial Hygiene

- Administer the Hearing Conservation Program
- Ensure worker and workplace noise levels are assessed, documented and sign posted as per this standard.
- Establish expectations for noise level and worker noise level assessment
- Establish the expectations of noise regulated areas
- Periodically re-evaluate worker exposure, through review of the Exposure Assessment Program, job/task assessment, equipment, tools being used, etc.
- Determine which workers are noise exposed for inclusion in hearing conservation program
- Provide technical services and advice regarding assessment, controls, and assist workers with selection and fitting of Hearing Protectors.
- Assess and approve the types of hearing protectors used at sites/divisions.
- Ensure sites/divisions determine and track tasks/areas where special hearing protection or other controls are required.
- Review, evaluate and assess the Hearing Conservation Program every 5 years.

5.6 Audiometric Technician

- Perform audiometric testing for all noise exposed workers.
- Communicate to supervisors, which workers require audiometric testing and when they will need to be tested.
- Share a copy of the audiogram and explain the meaning and implications of the results.
- Communicate any identified Standard Threshold Shift to:
 - The employee in writing. The notice will include the test results.
 - Industrial Hygiene in form of a bi-annual update of anonymous hearing test statistics.
- Perform hearing protection fit-testing and in person training
- Determine the need for custom ear plugs if disposable plugs are not adequate

5.7 Health Nurse

- Oversee records of audiometric exams, documentation of referrals, hearing protection fit-testing, and reports.
 - Refer cases to audiologists and other medical professionals as required
 - Assist employees with WSNB documentation when noise induced hearing loss has been
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determined.

- Report hearing loss related statistics as required.

5.8 Occupational Audiologist

- Performs Audiology review post audiometric testing and provide recommendations
- Answer questions regarding audiometric testing or follow up actions.
- Confirm or reclassify any Standard Threshold Shift (STS) determined through audiometric testing

6.0 STANDARD

6.1 Sound Levels and Assessments

Exposure Limits

As per WSNB General Regulation 91-191, worker noise exposure shall be maintained below 85 dBA Lex and instantaneous exposures below 115 dBA (Table 1).

Table 1 – Sound levels and maximum allowable duration of unmitigated exposure

Sound Level (Lex) (dBA)	Duration per Day	
	Hours	Minutes
79	24	1440
82	12	720
85	8	480
88	4	240
91	2	120
94	1	60
97	0.5	30
100	0.25	15
103	0.125	7.5
106	0.0625	3.75
109	0.03	1.8
112	0.016	1
115	0	0

6.2 Noise Exposure Assessment

Exposure assessment is the only way to verify workplace exposures to noise, to evaluate the effectiveness of controls and determine what workgroups are part of the hearing conservation program.

6.2.1 Area Surveys

Area surveys are a point in time measurements of sound levels and must be performed to in accordance with CSA-Z107.56 (R2011)

- Type 2 Sound Level Meter
- Calibrated
- Measured using “A” weighting and “Slow” response

Area surveys are used to assess and define exempt, permanent and temporary noise regulated areas as well as high noise tasks (Section 6.7).

Area surveys for permanent regulated areas and areas where noise levels could exceed 82 dBA must be performed by a competent person (as directed or approved by IH), at least every 5 years, and as conditions change. On site posted signs must be updated within 30 days of the assessment and results must be available to site/division employees for information and planning purposes

Noise area surveys for temporary regulated areas can be performed by anyone competent in use of a Type 2 Sound Level Meter. This includes IH, Health and Safety and other staff, contractors or consultants as required.

Any individual can request to have sound levels measured in a particular area.

Area surveys may be used to approximate worker noise exposure when work location and task noise measurements are combined with time estimates. These must be reviewed or approved by IH.

6.2.2 Noise Dosimetry

The preferred method for analyzing worker exposures is noise dosimetry. Industrial Hygiene will ensure noise dosimetry monitoring is performed for groups/roles in the hearing conservation program as required to assess noise exposure levels. Noise dosimetry will be updated based on the results of audiometric testing, significant changes to the work environment or tasks and as requested by site/division Health and Safety team members.

Industrial Hygiene is responsible for determining the best method and required frequency to assess employees' exposures to noise and will perform all assessments in accordance with regulatory requirements (NB Reg 91-191, s. 29) and CSA Standards (Z1007 and Z107.56). IH will determine the number of samples to be collected to statistically analyze similar exposure groups in line with industry's best practices.

All workers participating in industrial hygiene exposure monitoring will be notified of their results. Industrial Hygiene is responsible for preparing summary reports and issuing them to management and employees.

Noise dosimetry data are used by Industrial Hygiene to assess worker / work group exposures and to determine whether to include them in the Hearing Conservation Program. In the absence of appropriate and sufficient data, Industrial Hygiene will use area surveys (as per 6.2.1) and/or professional judgement to determine enrollment in the Hearing Conservation Program.

6.3 Engineering Controls

Engineering controls will be used to reduce sound levels to 82 dBA or lower, whenever practical. Engineering controls must be considered as the first line of defense when assessing noise risks for control.

When purchasing new assets, equipment, tools and designing processes, every effort will be made to ensure the sound levels are below acceptable limits.

Administrative controls will also be used to reduce total noise exposure.

Time limitations are discussed in detail in section 8.

6.4 Noise Regulated Areas and Requirements

Noise Levels and Requirements:

Regulated areas are determined by Area surveys and spot readings (Section 6.2.1). The classes of regulated areas and their requirements are listed below:

Table 1 – Noise Level Requirements

	Noise Level	Name	Description	Sign Posted
1	<82 dBA	Exempt Area	Hearing protection optional	
2	>82 dBA <100 dBA	Hearing Protection Area	Entry and work requires hearing protection (PAR of 15 or de-rated NRR of 15)	Caution Hearing Protection Required
3	>100 dBA <105 dBA	Double Hearing Protection Area	Entry and work requires use of a plug and muff. (Plug must have PAR of 15 or de-rated NRR of 15)	Caution Double Hearing Protection Required
4	>105 dBA	Time Limited Area	Entry and work in these areas requires double hearing protection and work time must be tracked and limited (Attachment III). (Plug must have PAR of 15 or de-rated NRR of 15)	Caution Double Hearing Protection and Time Limitations Required

6.5 Permanent Regulated Areas

Permanent regulated areas are those where noise levels are expected to be consistently high (>82 dBA) on a day to day basis (e.g. generation station production areas).

- Signs must be posted at the boundary of all regulated areas to notify workers of the noise level and the requirements for hearing protection to be used (Table 1).
- Non-regulated areas do not need to be signed and will be treated as being low noise unless a high noise task changes the noise level as per section 6.6 or 6.7.

Permanent regulated areas are identified by Sites/Divisions who will maintain an inventory. Sites/ Divisions are encouraged to create and share noise maps. Inventories and noise maps should be shared on the Health and Safety SharePoint page. Supervisors and Planners are encouraged to use these inventories/ maps when planning and executing work activities.

Permanent regulated areas may have their requirements temporarily reduced for low noise circumstances such as outages. Industrial Hygiene and/or Safety must be consulted.

6.6 Temporary Regulated Areas

Situations will exist, such as start-up/shutdown procedures, high pressure steam leaks, around mechanical equipment used during outages, where single or double hearing protection may be warranted to address temporary high noise hazards.

Temporary regulated areas can occur anywhere, at any time and typically can persist for hours or for months.

- Unplanned upsets in station conditions can happen at any time so employees must use their training to recognize abnormal conditions that may require the need for hearing protection
- Temporary regulated areas must be flagged off with yellow tape and tags that clearly identify the hazard and the appropriate level of hearing protection (based on 6.1).
- When an individual or team creates a high noise situation (e.g. due to start-up/shutdown procedures) they are responsible for establishing a proactive temporary regulated area. They can obtain support from Industrial Hygiene or Safety as required
- For new or existing leaks, a work order must be entered to address the leak. If sound levels are >100 dBA, the leak must be prioritized to fix the hazard. Methods should be looked at to mitigate or reduce the noise levels where possible (e.g. pinching in on a steam valve). This requirement often applies to high pressure steam leaks
- Initial assessment of temporary regulated areas can be done by anyone with access to a Type 2 Sound Level Meter. However, a competent person should assess temporary regulated areas expected to last > 5 days and that are >100 dBA so the appropriate level of protection can be communicated to the site.

6.7 High Noise Tasks

Numerous mechanical tasks/equipment generate localized high noise and therefore drive a need for a higher level of hearing protection than normally required in any given area. Examples include sandblasting, gouging in confined spaces, pneumatic tools, diesel engine equipment, vacuum trucks, etc.

- Noisy stationary power tools installed in Maintenance shops shall have signage affixed to the tool indicating the level of hearing protection required when operating the tool.
- Before using power equipment or power tools the supplier documentation shall be checked to determine the anticipated noise levels. Hearing protection will be used if noise levels are at or above 85 dBA
- Any task or situation requiring workers to raise their voice to talk to someone 3 feet away, should be assumed to require hearing protection.
- High noise tasks do not require posted signs, unless they are anticipated to last for multiple days or impact a large area.
- Sites/Divisions are encouraged to create, communicate and operationalize inventories of high noise tools and tasks that require the use of hearing protective equipment
- Appendix B lists known high noise tasks requiring double hearing protection. Planners and Operations permit issuers are expected to use these tables to ensure employees and contract workers follow these hearing protection requirements.

6.8 Posted Signs

WorkSafe NB requires that all high noise areas >85 dBA (Table 1 - Classes 2,3,4) have signs posted indicating the level of noise and the hearing protection requirements (NB Reg 91-191, Section 33). NB Power has chosen to post signs where noise routinely exceeds > 82dBA to ensure those working extended shifts are adequately protected.

Section 6.2.1 explains where signs are needed,

Signs must:

- Have the word “CAUTION” at the top of the sign
- Feature an image of hearing protection
- Feature the wording in Table 1.

See Appendix A for an example

Signs can be custom ordered or created to have any pertinent information on them as necessary, e.g. Caution – Hearing Protection Required when pump is running.

Temporary regulated areas can use tags or other means to communicate the information in Table 1.

6.9 Hearing Protection

- All Hearing protection used at NB Power work locations shall conform to CSA standard Z94.2. NB Power requires they are at least a Class B, meaning they have a NR rating sufficient to reduce noise exposure to below 85 dBA (min de-rated NRR 15).
- It is important to understand that the advertised noise-reduction ratings (NRR) on Hearing protection packages are typically laboratory-determined ratings that are not achievable in field-use conditions. NB Power has implemented hearing protection fit-testing to ensure all workers can achieve at least 15 decibels of protection (see Section 6.13)
- De-rating as per CSA Z94.2 shall be applied to all hearing protection that has not been fit-tested. This includes ear-muffs and hearing protection used by contractors who do not have fit-testing. See Appendix E to determine the de-rating for hearing protectors.
- In accordance with CSA Z94.2 - Double hearing protection will be granted an additional 5 decibels of protection for workers with a personal attenuation rating, and double hearing protection will for workers without a personal attenuation rating will use the CSA Z94.2 calculation.
- Double hearing protection will be required for noise levels in excess of 100 dbA.
- Hearing protection for NB Power employees shall be approved by Health and Safety prior to being used on site. Approved hearing protection is available in the Division specific PPE guides.
- Custom hearing protectors are permitted on site so long as they have a valid Ear-fit test proving they can achieve at least 15 dB of protection (see Section 6.13)
- NB Power recommends 4 types of disposable Hearing protection options be made conveniently available to workers before entering permanently regulated areas.

6.10 Time Limitations

- Industry best practice and uncertainty around the real-life protection offered by hearing protective devices has driven NB Power to limit double hearing protection to exposures below 105 dBA. In circumstances where noise levels exceed 105 dBA, if engineering controls cannot reduce the levels, time limitations are required to prevent overexposure.
 - A worker will only be permitted to work in the high-noise area for a certain amount of time (during which they will accumulate the maximum noise exposure permissible for their work shift), after which the remainder of their shift must be in an area with negligible noise exposure (e.g., <80 dBA).
 - Time limitations are problematic to enforce and can create manpower challenges if there are not enough qualified workers to perform the task once the first work group “times out”. Using better-engineered equipment with lower noise levels is preferred.
 - Supervisors are responsible for ensuring time limitations are properly followed.
 - Appendix C includes a table prescribing the noise-exposure duration permissible for a given sound level.
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- Workers with a valid Personal Attenuation Rating may be able to exceed the time limitations in Appendix C. They need to consult with Occ. Health or IH to determine how long they can safely work in the time limited area.

6.11 Hearing Conservation Program

The hearing conservation program (HCP) is defined by the Program Administrator.

The current boundary of the hearing conservation program is 85 dBA Lex. Any employee with a documented or suspected noise exposure at this level or higher, or as determined by Industrial Hygiene, will be included in the program

6.12 Education and Training

Each site/division must communicate specifics around known noise areas and hazards, where hearing protection is available and any other location specific nuances as part of orientation.

Noise exposed workers must receive education on noise, including: effects of noise on hearing, risks posed by noise levels in the workplace, the basic principles for noise control, the purpose of hearing protective equipment, requirements for audiometric testing and fit-testing, and others as determined by the Program Administrator.

Education for NB Power employees is provided by Hearing Conservation eLearning in LMS.

At the time of audiometric testing and fit-testing, noise exposed workers, shall be instructed in the proper use and care of hearing protection as well as receiving an explanation of their audiogram results.

6.13 Hearing Protection Ear-Fit Testing (only applies to NB Power employees)

Ear-fit testing is a qualitative or quantitative method of assessing how much protection a worker achieves with a specific make/model of earplug that they have self-fitted. The results of an ear-fit test are known as the Personal Attenuation Rate (PAR) and are comparable to the Noise Reduction Rating (NRR), but are specific to that individual.

Where applicable PARs for ear-fit results will supersede NRR ratings and time limitation requirements in Appendix B

- NB Power employees will have ear-fit testing performed for their hearing protection of choice of the available options at their site/division. This testing is to determine which hearing protector(s) properly fits and to ensure it adequately protects the worker (minimum of 15 dB protection).
 - Ear-fit tests are mandatory and due biennially (every 2 years). They will be performed by an Audiometric Technician (or other competent individuals as determined by the Program Administrator) and shall be scheduled at the same time as the biennial audiogram.
 - Ear-fit testing is required prior to any employee obtaining custom hearing protectors
 - If ear-fit testing on all site/division disposable hearing protection is unsuccessful at obtaining a minimum PAR of 15dB, custom hearing protection can then be explored as an option as per Appendix D.
 - Ear-fit testing may also be done for high noise circumstances (>105 dBA), at direction of Industrial Hygiene to maximize worker protection and to develop and implement fit-for purpose time limitations (Section 6.10)
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6.14 Audiometry

Audiogram testing is a critical component of a hearing conservation program. It allows insight into whether the established control programs are working and provides us with an opportunity to identify early signs of hearing loss and intervention.

Audiometric testing is required to be performed at the time of hire, biennially thereafter (for employees in the hearing conservation program) and then prior to an employee leaving the company when feasible.

- Baseline audiograms - must be performed within 6 months of hire for noise exposed all employees. A baseline test requires the employee to avoid occupational and non-occupational (where applicable) noise exposure for 14 hours prior to the audiogram. Where possible baseline audiograms will be scheduled first thing in the morning to accommodate this requirement.
- Biennial audiograms – must be repeated every two years for those included in the hearing conservation program. This includes all employees who have noise exposure in excess of 80 dBA Lex.
- Re-test Audiograms – where an biennial audiogram detects a potential standard threshold shift in hearing or any abnormalities, the employee is required to have a re-test audiogram within 30 days of the original biennial audiogram. This will be communicated by the audiometric technicians.
- Exit Audiogram – Where feasible prior to leaving the company or prior to leaving the hearing conservation program, an exit audiogram must be performed.

6.15 Referrals:

Where required employees may be referred to an external specialist for audiograms or other services related to hearing and the ears. These referrals are mandatory and will be done in conjunction with the Health Nurse.

Referrals for audiometric testing shall be conducted by a registered audiologist.

6.16 Records

- All noise exposure assessments will be retained for at least 40 years by Industrial Hygiene.
- All audiogram records will be maintained in the proprietary 3rd party software under the care custody and control of the Health Nurse.
- For non-PLNGS personnel any records available in PeopleSoft as of June 2026 were transferred to Shoebox. Other records may exist in physical files.
- For PLNGS all audiograms before 2017 will be retained in the physical files in the health center. All audiograms post 2017 will be stored and maintained in Shoebox.
- Fit-test records will be retained by the Industrial Hygienist (non-medical) in a NB Power SharePoint database.
- Referrals – will be recorded and maintained by Health Nurse

6.17 Review Process

A biennial (two-year) review of this document shall be conducted by the Program Administrator.

7.0 APPENDIX

Appendix A - Hearing Protection Sign Example

Appendix B - Tasks with Required Double Hearing Protection

Appendix C - Time Limitations for High Noise Areas/Tasks

Appendix D – Custom Hearing Protection Guide

Appendix E – Hearing Protection de-rating Guide



Director of Total
Health & Safety

DOCUMENT APPROVAL/REVISION RECORD

Revision #	Date	Revision Summary	Author	Reviewed By	Approved By
01	2026-08-17	Complete re-write	Matt MacFarlane Corinne Braam Jennifer Donovan		Roland Roy

Appendix A – Hearing Protection Posted Sign Example

Appendix B – Tasks with Required Double Hearing Protection

The information below comes from industry best practices and has been partially validated by IH.

Equipment/Task Description	Type of Hearing Protection
Abrasive blasting inside a confined space	Double
Gouging inside a confined space	Double
Grinding inside a confined space (including when done in combination with welding)	Double
Chipping refractory/coke inside a refractory/coke lined vessel using a jackhammer or air chipper	Double

Appendix C – Time Limitations for High Noise Areas/Tasks

For workers in areas or performing tasks where the noise level is >105 dBA, the following time limitations shall be applied in addition to wearing double hearing protection:

As per Section 6.13 a valid ear plug fit-test and PAR takes precedence over this table.

Maximum allowable duration of exposure per shift: (T, min.)	Area/Task Noise Level (dBA)
480	105
381	106
302	107
240	108
190	109
151	110
120	111
95	112
76	113
60	114
48	115
38	116
30	117
24	118
19	119
15	120
12	121
9	122
8	123
6	124
5	125
4	126
3	127
2	128
2	129
1.5	130

Appendix D – Custom Hearing Protection Program

Preliminary process for custom hearing protection. This may be revised as the program evolves.

Custom hearing protection is a viable option as part of a hearing conservation program. Custom hearing protection is manufactured specifically for each individual ear. Custom hearing protection is not more or less effective than other forms of hearing protection. Rather, if done correctly, it should ensure a good fit for the individual.

NB Power has chosen to implement custom hearing protection when readily available disposable hearing protection options are not viable for the worker (unable to achieve a PAR of 15). Each site/division is expected to offer at least 4 disposable hearing protectors. During Biennial audiometric testing, Audiometric technicians will perform hearing protection fit testing on workers. Audiometric technicians will provide coaching and test workers on all available options (if required). If the worker is unable to achieve a personal attenuation rating (PAR) of 15 on any of the available disposable options, they will inform the worker of their option to obtain custom hearing protection.

NB Power will establish a formal relationship with a custom hearing protection provider, and a process will be developed to help the worker obtain the custom hearing protection. Steps will cover the fitting, receiving the custom hearing protection, how to break them in, how to pay for them/ get reimbursed and the expectation for fit testing on the custom hearing protection.

Before using the custom hearing protection, the worker must be fit-tested to ensure the custom hearing protection provides the minimum required level of protection (PAR of 15). Fit testing will be required biennially to keep using the custom hearing protection.

Appendix E – Hearing Protection De-rating Guide

Single Hearing Protector - PLUGS				Single Hearing Protector - MUFFS				DUAL Hearing Protection (Plug+Muff)		
NRR (dB)	CSA Derating (NRR*0.5) - 3	Max Sound Level (Lex)		NRR (dB)	CSA Derating (NRR*0.7) - 3	Max Sound Level (Lex)		NRR of highest device (dB)	CSA Derating [(NRRh +5)*0.65]- 3	Max Sound Level (Lex)
15	4.5	89.5		15	7.5	92.5		15	10	95
16	5	90		16	8.2	93.2		16	10.65	95.65
17	5.5	90.5		17	8.9	93.9		17	11.3	96.3
18	6	91		18	9.6	94.6		18	11.95	96.95
19	6.5	91.5		19	10.3	95.3		19	12.6	97.6
20	7	92		20	11	96		20	13.25	98.25
21	7.5	92.5		21	11.7	96.7		21	13.9	98.9
22	8	93		22	12.4	97.4		22	14.55	99.55
23	8.5	93.5		23	13.1	98.1		23	15.2	100.2
24	9	94		24	13.8	98.8		24	15.85	100.85
25	9.5	94.5		25	14.5	99.5		25	16.5	101.5
26	10	95		26	15.2	100.2		26	17.15	102.15
27	10.5	95.5		27	15.9	100.9		27	17.8	102.8
28	11	96		28	16.6	101.6		28	18.45	103.45
29	11.5	96.5		29	17.3	102.3		29	19.1	104.1
30	12	97		30	18	103		30	19.75	104.75
31	12.5	97.5		31	18.7	103.7		31	20.4	105.4
32	13	98		32	19.4	104.4		32	21.05	106.05
33	13.5	98.5		33	20.1	105.1		33	21.7	106.7
34	14	99		34	20.8	105.8		34	22.35	107.35
35	14.5	99.5		35	21.5	106.5		35	23	108