

Workplace Noise Survey – Base Level Example

Disclaimer

This workplace noise survey has been produced to help you (the Dutyholder) with your assessment of risk for workplace noise. A workplace noise survey does not mean you are fully compliant with the Control of Noise at Work Regulations 2005. The duty to assess and control risk to your employees from noise always remains with you. You have a duty to act on the advice I have given and to act on the parts of the regulations not covered in this report. Appendix 3 provides a list of regulations which may not be addressed by this workplace noise survey but which you should comply with.

As your Assessor I have completed a:

Base Level Report	x	Intermediate Report		Comprehensive Report	
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Report Matrix – What is covered in each level of report			
Areas covered	Type of Report		
	Base Level Report	Intermediate Report	Comprehensive Report*
Assessor's details and qualifications	X	X	X
Measurement results & data	X	X	X
Measurement information	X	X	X
Calculations of exposure levels	X	X	X
Assessment of exposure levels against action values	X	X	X
Advice on hearing protection zones	X	X	X
Calculations and advice on hearing protection	X	X	X
Advice on overprotection from hearing protection	X	X	X
Advice on Buying Quiet	X	X	X
Advice on who may need health surveillance	X	X	X
Advice on fit and wear of hearing protection		X	X
Advice on Information, Instruction & Training		X	X
HSE expected control measures not evident on site		X	X

Ranked list of technical noise controls			X
Noise control calculations and measurements			X
Noise control measures specific to your site			X
Advice on sourcing quieter machinery			X
Advice on practicability of control measures			X
Advice on machinery and noise maintenance			X

*This is the minimum expectation for a Comprehensive report. Comprehensive reports may also cover the additional regulations given in Appendix 3 e.g., ototoxic substances.

Summary

<u>Key information for Dutyholder</u>		<u>Yes</u>	<u>No</u>
Base Level			
Are there employees exposed to noise above the lower action value (see section 2)?		x	
Are there employees exposed to noise above the upper action value (see section 2)?		x	
Are there employees exposed to noise above the limit value (see section 2)?		x	
Is there a need for Hearing Protection Zones (see section 3)?			x
Is hearing protection needed (see section 4)?		x	
Is there a need for a new or improved 'buy quiet' scheme (see section 5)?		x	
Do employees need health surveillance (see section 6)?		x	
Signature of Author	J Smith	Date of Report	01/01/2050

1. Introduction

1.1. **This is a base level survey report for the Control of Noise at Work Regulations 2005.**

1.2. The report is for Acme Horticulture Ltd, Anytown Industrial Estate, Everytown Road, Anytown. Acme Horticulture are contracted to maintain 30 football parks in Anytown; this is the work I have assessed. Work is done outdoors using mowers (x2 Mowercorp Model AAA) and petrol driven trimmers (x2 Trimmer Corp Model XX). This happens most days during the cutting season.

1.3. The report was undertaken by J. Smith, BSc, MIOA, CIOSH, LFOH.

2. Assessment of Exposure

- 2.1. Employees who work on the Anytown Football parks contract are likely to be exposed to noise above the Exposure Limit Value. 2 employees work on this contract. They are described by Acme as 'Grounds Keepers'. I do not have their employee numbers or full names, but they were identified as Dennis and Neville.
- 2.2. Noise exposure levels have been calculated using the HSE online calculator. Exposure durations are based on information provided by the Dutyholder. Noise levels are from on-site measurements made by the author.
- 2.3. Figure 2.A shows the expected noise exposure for a worker during a typical day. Noise measurements were made of the two main activities: mowing and strimming. Details of the measurement equipment and survey are given in Appendix 1.

Daily Noise Exposure Action Value Calculator V4-12 March 2021

The Control of Noise at Work Regulations 2005 define Lower and Upper Exposure Action Values (LEAV and UEAV) of 80 and 85 dB(A). This calculator estimates the **unprotected daily noise exposures** of workers for comparison with the LEAV and UEAV.

Navigation: Main Menu | Zoom to fit | Daily Noise Exposure Action Value | Daily Noise Exposure Limit Value Calculator | Weekly Noise Exposure Calculator | Instructions

Task ¹ name / description	Noise level ¹ <i>L</i> _{Aeq} (dB(A))	Points per hour	Time (in hh:mm) to		Daily exposure time ¹		Personal noise exposure per task (dB(A))	Personal exposure points per task
			LEAV	UEAV	(hours)	(mins)		
Strimming	88	25	1:16	4:00	1	30	81	37
Mowing	89	31	1:00	3:11	5	30	87	173
Driving to site	70	0	>24hours	≥ 24 hours		30	58	0
Lunch breaks	65	0	>24hours	≥ 24 hours		30	53	0
					Total daily exposure time (hh:mm)		Daily exposure, <i>L</i> _{EP,d} (dB(A))	Total daily exposure points
					8:00		88	210

☐ Lock task names

Reset

Copy values from Noise ELV Calculator

Footnotes:

WARNING: At or above UEAV
Programme of control measures required
Hearing protection must be used
(check suitability with ELV calculator)


Figure 2.A – Noise levels for football park grass maintenance

3. Hearing Protection Zones

- 3.1. It is not possible to define hearing protection zones. The employees work outside and are constantly moving.

4. Hearing Protection

- 4.1. **Hearing protection is needed, and I recommend ABCD earmuff 22 Model A.** Employees must wear a mesh face visor and helmet when strimming and mowing. The 22 Model A muff has a rear support so it can be worn without interfering with the helmet. Other earmuffs or ear plugs could provide the required reduction. Employees have to wear gloves, and the work can be dirty so ear plugs may not be practical.
- 4.2. **The HSE calculator has been used to estimate the required hearing protection.**
- 4.3. Figure 4.A indicates that hearing protection with an SNR of 22dB should be worn by employees when using either the strimmer or lawn mower.



Daily Noise Exposure Limit Value Calculator
V4-12 March 2021

The *Control of Noise at Work Regulations 2005* defines an Exposure Limit Value (ELV) of 87 dB(A).
 This calculator estimates the **protected daily noise exposures** of workers (i.e. it accounts for the use of hearing protection) for comparison with the ELV.

Main Menu
Zoom to fit
Daily Noise Exposure Action Value
Daily Noise Exposure Limit Value Calculator
Weekly Noise Exposure Calculator
Instructions

Hearing protector information:
SNR value (dB): 22
Model name (optional): HSE ear muff 22

Task ¹ name / description	Noise level ¹ <i>L</i> _{Aeq} (dB(A))	Noise level ² <i>L</i> _{Ceq} (dB(C))	HP worn? (Yes/No)	Protected level dB(A)	Daily exposure time ¹		Personal noise exposure per task (dB(A))	Personal exposure points per task
					(hours)	(mins)		
Strimming	88	89	Yes	71	1	30	64	1
Mowing	89	91	Yes	73	5	30	71	4
Driving to site	70	73	No			30	58	0
Lunch breaks	65	66	No			30	53	0

☐ Lock task names
Reset
Copy values from Noise EAV Calculator

Total daily exposure time (hh:mm)
Daily exposure, *L*_{EP,d} (dB(A))
Total daily exposure points

8:00
72
5

Information: Noise at the ear below ELV
 Use EAV calculator to estimate exposures to compare with the LEAV and UEAV

Footnotes:

Figure 4.A – Assessment of hearing protection

4.4. The hearing protection recommended should not result in noise levels below LAeq 70dB when the power tools are in use.

5. Advice on Buying Quiet

- 5.1. **ACME needs to set up a ‘buy quiet’ scheme.** From discussion with management there is no scheme to buy lower noise power tools.
- 5.2. HSE expects dutyholders to have a ‘buy quiet’ scheme. Where possible you should buy the lowest noise power tools that can do the job to the standard required. You should identify the power tools that create the highest levels of noise and when you come to replace them look for quieter versions. Full advice can be found here: www.hse.gov.uk/noise/choosequieter.htm.

6. Health Surveillance Advice

- 6.1. **Dennis and Neville need to be given health surveillance for their hearing.** If different employees take over this job, they should be given health surveillance.
- 6.2. Employees who are exposed to noise above the upper exposure action value should be given health surveillance. This requirement applies even if you can reduce exposure below the upper action value with the use of hearing protection. If you have employees who are exposed to noise between the lower and upper action value, you may have to provide health surveillance if they are classed as being “at particular risk”. This includes anyone with pre-existing hearing loss, or anyone treated with medication or exposed to chemicals known to affect hearing.

Appendix 1 – Measurement Information

Measurement Practice

- Measurement equipment used (type, serial numbers).
Type 2 Sound Level Meter – ABC sound level meters serial number 123456
Type AB calibrator – ABC calibrator serial number 654321
- Calibration Information. Calibration certificate supplied as separate pdf.
- Statement confirming field calibration undertaken before and after measurements (including results of calibration where possible).
A site calibration was undertaken before and after the measurements, no difference was measured in calibration.
- Statement confirming measurement equipment complies with relevant standard.
Sound levels conform to BS EN 61672-1:2013
Calibrator conforms to Class 2 of BS EN 60942:2018
- Statement confirming measurement procedure complies with relevant standard (see Appendix 2).
- Measurement procedure complies with method described in L108 HSE.

Measurement Data

- Results of measurements or reference to source of original measurement data (e.g., machinery manufacturer, HSE data).
- Measurement data (include where relevant LAeq, LCeq, LCpeak and LAE, frequency data, measurement duration, measurement location).

Activity	Duration (hrs:min)	L _{Aeq} (dB)	L _{Ceq} (dB)	L _{Cpeak} (dB)	Comment
Strimming (head height)	00:30	88	89	115	Dry, wind <3m/s. distant road noise at least 10dB lower than trimmer. Measurement on left side of operator
Mowing (head height)	00:30	89	91	112	Dry, wind <3m/s. distant road noise at least 10dB lower than mower. Measurement on left side of operator
Driving	00:30	70	73	89	Short time in work van, engine noise. Some talking
Lunch	00:30	65	66	73	Eaten in work van not moving, talking, including me

- Comments on relevant environment issues during measurements.