

Public Health: Initiating Outcomes

CIEH Conference 2009

Novotel Hotel Cardiff
Thursday 26 February 2009

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Noise exposure of bar staff in pubs and clubs in Carmarthenshire

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Content

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- 3) Methodology
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Background and the Legislation



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Background and the Legislation

- Health and safety with regard to noise at work is not a new topic
- Prior to *The Control of noise at Work Regulations 2005* there was *the Noise at Work Regulations 1989*
- The Control of Noise at Work Regulations 2005 are based on a European Union Directive
(Council and Parliament Directive 2003/10/EC of 6 February 2003 on the minimum health and safety requirements regarding exposure of workers to the risks arising from physical agents (noise)).

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The control of Noise at Work Regulations 2005 came into force on 6th April 2006

BUT the music and entertainment sectors were given a two year period of grace.
Therefore

The Control of Noise at Work Regulations 2005 came into force in the music and entertainment sector from April 2008

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Definition of music and entertainment sector

Workplaces where live music is played or where recorded music is played in a restaurant, bar, public house, disco or nightclub, or alongside live music or a live dramatic or dance performance

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The main difference between the 1989 and 2005 noise regulations

- a) The two action values for daily noise exposure have been reduced by 5dB to 85 dB and 80 dB
- b) There are now two action values for peak noise at 135 dB and 137 dB
- c) There are new exposure limit values of 87 dB (daily exposure) and 140 dB (peak noise) which take into account the effect of wearing hearing protection.
- d) There is a specific requirement to provide health surveillance where there is risk to health

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Requirements of The Control of Noise at Work Regulations 2005

Requires employers to prevent or reduce risks to health and safety from exposure to noise at work. The regulations require an employer to:

- [Assess](#) the risks to your employees from noise at work;
- [Take action](#) to reduce the noise exposure that produces those risks;
- Provide your employees with [hearing protection](#) if you cannot reduce the noise exposure enough by using other methods;
- Make sure the [legal limits](#) on noise exposure are not exceeded;
- Provide your employees with [information, instruction and training](#);
- Carry out [health surveillance](#) where there is a risk to health

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Control of Noise at Work Regulations 2005 – action and Limit values

- Lower exposure **action** values
 - Daily or weekly personal noise exposure of 80dB (A weighted)
 - a peak sound pressure of 135 dB (C Weighted)
- Upper exposure **action** values
 - Daily or weekly personal noise exposure of 85dB (A weighted)
 - a peak sound pressure of 137 dB (C Weighted)
- Exposure limit value
 - Daily or weekly personal noise exposure of 87dB (A weighted)
 - a peak sound pressure of 140 dB (C Weighted)

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Past research

- A number of studies have identified that noise levels within places of entertainment exceed the action value.
- One of the most significant reports was completed by the HSE
“Noise Levels and noise exposure of workers in pubs and clubs – A review of the literature”
Research Report 026 (2002)

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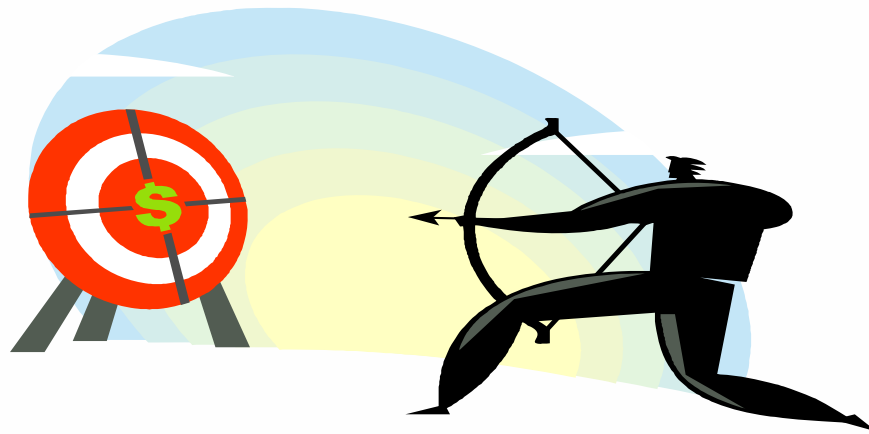
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Aims & Objectives



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Aim & Objectives

- To raise awareness in the entertainment venues of the requirements of the Control of Noise at Work Regulations 2005
- To gauge the level of understanding employers and employees in the entertainment sector have in regards to the legislation
- To measure sound exposure and establish whether the noise exposure of bar staff complies with the legislation. If not, by how much are the limits exceeded
- To establish whether noise exposure within pubs and clubs in Carmarthenshire are similar to those levels stated in other reports

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Methodology



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Methodology

Two main strands to the investigation: -

- 1) Questionnaire completed by employers and employees
- 2) Physical measurements of the noise levels.

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Methodology

1. High risk entertainment venues were identified i.e. night clubs and late night bars providing entertainment (amplified music) **17 identified**
2. The 17 venues were contacted via letter. The letter contained: -
 - brief explanation of the changes in legislation
 - outline of the duties of the employer
 - an offer of a free noise assessment
3. 9 venues took advantage of the offer (some of the 17 venues had ceased trading or no longer provided amplified entertainment)
4. Employees and employers at the participating venues were required to complete a questionnaire
5. Noise measurements were taken at the venues
6. A report was produced and supplied to the employers

Measuring the sound level

- Measurements were made using two techniques
 - a) typically stationary monitoring behind the bar
 - b) The use of Personal Noise Exposure Meters attached to glass collectors

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Sound measuring equipment

The stationary monitor

- Type 1
01dB Blue Solo



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Sound measuring equipment

Personal Noise Exposure Meter

Casella

CEL – 350 dBadge



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Thank you to the CIEH for
part funding the purchase
of the Personal Noise
Exposure Meters!!!!!!!

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Measurements and calculations

- Measurements were taken between 22:00 and 02:00
- Applying worse case scenario, the LAeq between 00:00 and 02:00 was used to calculate daily noise exposure and weekly noise exposure
- All noise exposures were calculated based on information supplied by the employer

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Results



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The employer questionnaire results

	YES	NO
Are you aware of The Control of Noise at Work Regs 2005?	8	0
Are you aware of the requirements of the regulations and your responsibilities ?	4	4
Do you provide training to staff regarding the dangers of exposure to excessive noise?	4	4
Have you taken steps to reduce noise exposure?	1	7
Do you provide PPE?	0	8

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The employees questionnaire results

	YES	NO
Are you aware of the existence of the Control of noise at work regs?	28	28
Are you aware of the requirements of the regulations?	1	55
Have you received training regarding the regulations?	1	55
Are you provided with PPE?	0	56
Have you been informed of methods of reducing noise exposure?	1	55
Have you been made aware of the dangers of noise exposure?	1	55
Have you been shown a work place noise assessment for your place of work?	0	56
Do you regular have to shout to communicate at a distance of approx 2m	9	47

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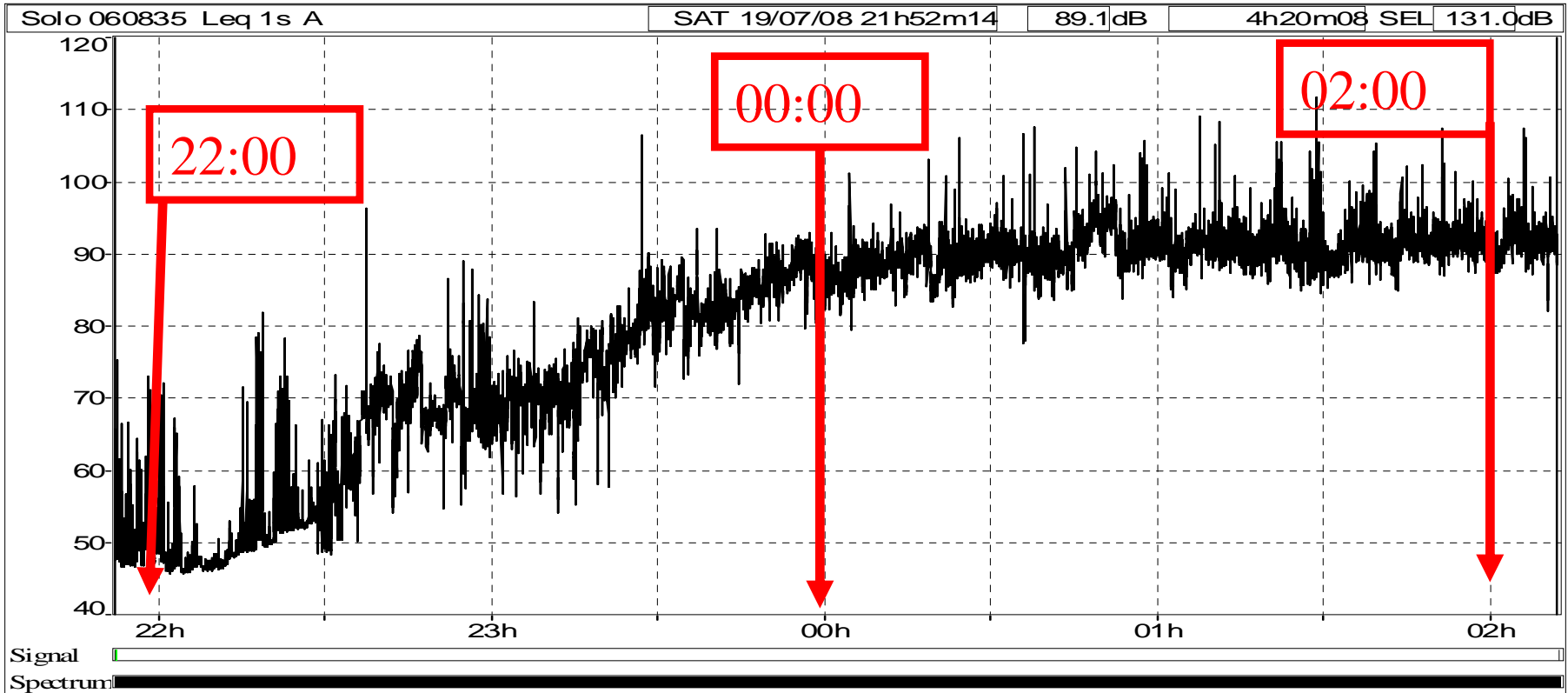
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Typical increase in noise levels between 22:00 and 00:00



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Pre mise s	Staff	LAeq between 00:00 and 02:00	Daily personal noise exposure (LEPd)	Weekly noise exposure (LEPw)	C Peak
A	Bar 1	95	93	89	133
	Bar 2	96	94	90	130
	Bar 3	94	92	88	131
	Glass collector				
B	Bar 1	92	91	87	131
	Bar 2	99	98	94	128
	Glass collector	97	97	93	134
C	Bar 1	88	86	82	122
	Glass collector				
D	Bar 1	98	95	91	121
	Glass collector				

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Premises	Staff	LAeq between 00:00 and 02:00	Daily personal noise exposure (LEPd)	Weekly noise exposure (LEPw)	C Peak
E	Bar 1	98	96	94	126
	Glass collector	99	97	97	129
F	Bar 1	94	93	89	129
	Bar 2	99	98	94	132
	Glass collector	97	96	92	135
G	Bar 1	92	89	88	119
	Glass collector				
H	Bar 1	96	93	92	127
	Bar 2	95	92	91	131
	Glass collector				
	Glass collector				

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Premises	Staff	LAeq between 00:00 and 02:00	time taken to reach the first action value (80LEPd)	time taken to reach the second action value (85LEPd)
A	Bar 1	95	15 min	48 min
	Bar 2	96	12 min	38 min
	Bar 3	94	19 min	60 min
	Glass collector			
B	Bar 1	92	30 min	96 min
	Bar 2	99	6 min	19 min
	Glass collector	97	9.5 min	30 min
C	Bar 1	88	76 min	240 min
	Glass collector			
D	Bar 1	98	7.6 min	24 min
	Glass collector			

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Premises	Staff	LAeq between 00:00 and 02:00	time taken to reach the first action value (80LEPd)	time taken to reach the second action value (85LEPd)
E	Bar 1	98	7.6 min	24 min
	Glass collector	99	6 min	19 min
F	Bar 1	94	19 min	60 min
	Bar 2	99	6 min	19 min
	Glass collector	97	9.5 min	30 min
G	Bar 1	92	30 min	96 min
	Glass collector			
H	Bar 1	96	12 min	38 min
	Bar 2	95	15 min	48 min
	Glass collector			
	Glass collector			

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Conclusion

- Employers have little understanding of the regulations and their responsibilities
- Employees have little knowledge of the legislation
- The pubs and clubs which took part clearly do not comply with the requirements of the legislation
- There are some misconceptions amongst employers

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Limitations of the study

- Only the larger establishments were monitored
- The study concentrated on bar staff and glass collectors
- Some measurements were interfered with e.g. people purposely shouting

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What is the next step?



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LACORS guide for regulatory authorities regarding noise at work in the entertainment industry

“In accordance with the Fit3 portfolio for 2008-9, any planned work on this topic should aim simply to raise awareness among duty holders of the Regulations and of Sound Advice once the finalised version becomes available. This is not a high priority Fit3 topic. However, the precise nature of each LA’s approach will depend upon the degree of awareness-rising work which has already been undertaken by an individual authority in respect of any premises visited.”

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Education! Education & Education!

What has been done so far?

- Awareness of the Regulations amongst the larger pubs and clubs has already improved by: -
 - simply undertaking the assessment
 - Interviews and discussions with employers and employees
 - Simple 4 page report issued to the employers who took part
- Provided free samples of flat response hearing protection



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How can we progress in educating employers and employees?

- Provide educational seminars
- Extend the project to other areas of the entertainment sectors e.g. orchestras, theatres
- Extend the project to smaller establishments
- Letter drops to the smaller establishments

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