



The Control of Vibration at Work Policy 2024 – 2025

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Control of Vibration at Work Policy Statement

SG Civil Engineering Ltd (the "Company") recognises that frequently working with vibrating tools and equipment and / or handle vibrating equipment pose a hazard to health.

The Company aims to eliminate or otherwise minimise, so far as is reasonably practicable, the risks from Hand Arm Vibration (HAV) to individuals arising as a result of using such equipment as part of their everyday work practices.

This Policy describes the vibratory related ill health effects that can result from prolonged use of such equipment; explains the arrangements for implementing this policy; and further outlines responsibilities for both the business and operatives.

This policy is subsidiary to the Company Health, Safety & Wellbeing Policy and any general responsibilities highlighted in that policy are implicitly applied.

This policy document will be brought to the attention of all workers and will be reviewed on a regular basis and no less frequently than annually.



S Gallagher
Operations Director
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1st June 2024

1. Introduction

- 1.1 It is known that a vast number of workers within the UK are exposed to hand-arm vibration in the workplace. Two million of these workers are exposed to levels of vibration where there are clear risks of developing disease. The Control of Vibration at Work Regulations 2005 aim to eliminate or control the exposure of workers to vibration.
- 1.2 Hand-arm vibration syndrome (HAVS) is vibration transmitted from work processes into workers' hands and arms from the use of vibratory power tools or work processes and is the cause of significant latent ill health (painful and disabling disorders of the blood vessels, nerves, joints and muscles of the hands and arms).
- 1.3 The damage from HAVS can include the inability to do fine work and can trigger painful blanching attacks. The associated costs to business and workers can be high as business may lose skilled workers and face compensation claims. Operatives may find that HAVS impairs their personal life and severely affects their working life.
- 1.4 However, the risk of HAVS can be significantly reduced via simple cost effective measures. The long-term aim of the Company is to prevent any cases of HAVS forming.

2. Scope

- 2.1 This policy applies to all Company Operatives and Agency Workers alike, all Sub-Contractors will also be informed of the contents of this policy prior to commencing any agreed works.

3. Responsibilities

3.1 Directors

The Directors shall:

- 3.1.1 Have overall responsibility for the implementation of this policy throughout the Company.
- 3.1.2 Delegate the responsibility for the implementation of this policy to the Supervisors engaged on projects throughout the various project locations.
- 3.1.3 Provide funds for the implementation and maintenance of this policy as required.
- 3.1.4 Ensure that details of all subcontractors potentially at risk from vibration are referred to the Occupational Health Provider.
- 3.1.5 Ensure that an asset register is created of all work equipment held by the company that is likely to present a risk of vibration. This register is to be updated as new equipment comes online and must contain a date as to when the equipment became operational. It is of the utmost importance that on no account any items be deleted from the inventory, and it shall be maintained at each project location.

3.1.6 Ensure a programme of routine maintenance and servicing for relevant work equipment is implemented and all such records are retained.

3.1.7 The site management team (Site Manager / Supervisor) are to maintain the equipment asset register and ensure the manufacturers vibratory data is included.

3.1.8 Where equipment is hired in by the business an inventory of such items requires being maintained and placed on the asset register.

3.2 **Contracts Manager**

The Contracts Manager shall support and assist the Directors in the implementation of this policy as it relates to operatives and / or subcontractors, in addition they shall;

3.2.1 Ensure that effective management control of vibratory equipment is maintained.

3.2.1 Assist in the development and maintenance risk assessments to the specific work elements and with the equipment that is used.

3.2.3 Ensure that full HAV Records for each operative are completed, maintained and submitted.

3.3 **Supervisors**

Supervisors shall, as appropriate:

3.3.1 Implement this policy as it relates to the operatives within their control on company projects through daily health and safety briefings and through toolbox talks.

3.3.2 Use task specific risk assessments to identify hazardous work activities and to identify any operatives who could be at risk.

3.3.3 Ensure good working practices are adopted by all workers and ensure that correct PPE is worn as identified by the specific risk assessment.

3.3.4 Ensure job rotation and regular breaks are implemented to prevent potential long exposure to vibratory tools.

3.3.5 Ensure that a programme of routine maintenance and servicing is implemented for all relevant work equipment used on site and records kept of such maintenance.

3.3.7 Ensure that all operatives complete a daily vibration exposure record (SMS 09) for each worker engaged in the use of vibratory tools and submit them to the Main Office.

3.4 **Workers (inc Sub-Contractors)**

All Workers shall:

- 3.4.1 Use all equipment in accordance with instructions.
- 3.4.2 Ensure that the equipment is well maintained.
- 3.4.3 Report any defects or difficulties with vibratory equipment to their direct supervisor.
- 3.4.4 Complete daily vibration exposure records (SMS 09) for each vibratory tool that has been used.
- 3.4.5 Cooperate with any programme of health surveillance that is identified as necessary following the specific risk assessment.
- 3.4.6 Report any symptoms (such as numbness, tingling or whiteness of fingers), which may be associated with exposure to vibration to their supervisor.

Procedures

4. Ill Health Effects from Vibration

4.1 Hand-Arm Vibration Syndrome (HAVS):

- 4.1.1 The vibration generated by certain work equipment can cause damage to nerves, blood vessels, muscles and bones. This damage results in a potentially painful and debilitating condition known as Hand-Arm Vibration Syndrome or HAVS.

Commonly this appears as 'vibration white finger'. This is a whitening or blanching and numbing of the fingers, typically whilst or after using vibratory equipment or brought on by cold conditions. This loss of sensitivity is followed by a painful throbbing as blood returns to the fingers.

- 4.1.2 If HAVS is able to develop further, it can result in reduced grip strength and inability to handle equipment properly. This has an adverse impact on both work and leisure activities where there is a likelihood of the hands becoming cold.
- 4.1.3 An individual with HAVS may not experience the complete range of symptoms, e.g. there may be nerve damage symptoms with there not being blood circulation problems or vice versa. The symptoms of HAVS are usually progressive as exposure to vibration continues although the rate of deterioration may vary from person to person.
- 4.1.4 The relationship between the improvement of symptoms and the cessation of the use of vibratory equipment is not well understood, but it is thought that nerve damage will never improve. The effects on blood circulation may improve after reducing or stopping vibration exposure in people below 45 and where the disease has not reached an advanced stage. Any improvement will however be slow and can be affected by smoking.

5. Management of Vibration

5.1 Specific Risk Assessment

5.1.1 Specific risk assessments conducted as per The Management of Health and Safety at Work Regulations 1999; Regulation 3 will have already identified vibration as at least a potential hazard for certain work activities.

5.1.2 Work specific risk assessments are to be carried out by the Contracts Manager or the appointed Supervisor.

5.1.3 Where the risk is thought to be significant a more detailed risk assessment shall be conducted with the assistance of the Directors or appointed Health & Safety Consultant. This assessment shall look in detail at:

- The levels of vibration that operatives are exposed to;
- The duration and pattern of that exposure;
- Whether individual operatives experience any of the symptoms commonly associated with HAVS.

These detailed assessments will also require in some cases the taking of vibration measurements, which will require specialist equipment and knowledge and is referred to in detail below.

5.1.4 All risk assessments shall be reviewed regularly, and if there is reason to suspect that the risk assessment is no longer valid or that there has been a significant change in the work to which the assessment relates.

As a result of review, where changes are required, such changes shall be made.

5.1.5 The findings in any such risk assessment shall be recorded as soon as is practicable and communicated to the operatives. Furthermore, the measures taken as a result of this assessment shall be recorded.

5.1.6 The vibration regulations require that a record of the significant findings of the risk assessment and the steps to control the risk must be kept. This record should include:

- The operative, operations and work process;
- A description of the tools, work pieces, method of working etc;
- Any vibration control measures already in place;
- The likely vibration magnitudes;
- Work patterns and assessments of daily exposure duration;
- Operatives whose daily vibration exposures (Points) are likely to exceed the exposure action value and/or the exposure limit value;

- The immediate measures taken to reduce exposure below exposure limit value, if assessment shows it is likely to be exceeded;
- Identification of the measures likely to reduce exposures to vibration, and the resources that would be required;
- Any other information required to comply with the duty of care to reduce exposure and control risk;
- Name of the assessor / supervisor and the date of the assessment.

5.1.7 There are various factors that contribute to the level of risk of an individual developing HAVS:

- The use of handheld or hand operated vibrating equipment by the operative;
- The way the equipment is handled during use e.g. tightness of grip, pushing force etc;
- Other work conditions e.g. nature of material being worked on;
- Exposure pattern - duration and frequency of work and rest periods - frequent rest periods are recommended;
- The proportion of the hand exposed to vibration;
- Factors affecting circulation e.g. temperature, smoking, circulatory disorders.

5.1.8 As with all forms of risk assessment, one of the key elements is control of exposure to the hazard and this should be approached through consideration of a hierarchy of control measures:

- Elimination of the work;
- Elimination by Design ;
- Substitution;
- Automation / Mechanisation;
- Modification;
- Protection.

5.2 **Management & Control**

5.2.1 The Company will record all use of vibration equipment by means of the HSE recognised Points System. (See Appendix A for details).

5.2.2 The HSE ACoP (L140) on the subject recommends that preventive action and health surveillance must be employed where operators are

exposed to levels of vibration exceeding 2.5 m/s² A(8), that is to say with an 8 hour reference period.

5.2.3 To ensure that each individual exposure is managed and controlled the Company shall be set at the following daily values (Points):

- Exposure Action Value (EAV) = 100 - The operative can continue to work on vibratory tools however on a limited basis.
- Exposure Limit Value (ELV) = 200 - The operative is to **stop** all work immediately with vibratory tools.

It is extremely important that the Exposure Record Sheets are maintained and checked by the Supervisors, so the above action values are implemented and managed.

5.2.4 The Exposure Record Sheets shall be returned to the Main Office on a weekly basis to allow for the action values to be reviewed and monitored on site.

5.3 All exposure to vibration magnitude shall be recorded by the use of SMS 09, following the recommended EAV and ELV as stated in paragraph 5.2.2. The tool output shall be measured by utilising the HSE HAV Calculator. <https://www.hse.gov.uk/vibration/hav/calcinst.htm>

6. **Vibration Measurement**

6.1 Different techniques and approaches are used for the measuring of vibration.

6.1.1 The Company will record all use of vibration equipment by means of the HSE recognised Points System. Under this system the exposure action values, and exposure limit values are converted into points. This means that the exposure action value of 2.5 m/s² A (8) becomes equal to 100 points and the exposure limits value of 5m/s² becomes equal to 400 points. This allows for easy calculation of exposure to vibration. See Appendix A for details.

6.1.2 Suppliers of machinery must provide detailed information on expected vibration levels where the machinery will give rise to a vibration magnitude of more than 2.5 m/s² (at any one instant, not over an 8 hour reference period).

7. **Health Surveillance**

7.1 The aims of Health surveillance are to inform the workers of the potential risks associated with vibration exposure, to assess health status and to diagnose vibration induced disorders at an early stage.

7.2 Health surveillance shall be provided to workers and those who are likely to be regularly exposed above the action value of 2.5 m/s², have a diagnosis of HAVS or risk assessments indicate that workers are at a significant risk of developing HAVS.

7.3 Vibration White Finger is a reportable industrial disease under the Reporting of Incidents, Diseases and Dangerous Occurrences Regulations 2013 (RIDDOR).

8. The Purchasing or Hiring of Equipment

- 8.1 It is important to ensure that tools provided for a particular work activity are those most appropriate for the job as well as those which expose the operative to the lowest levels of vibration. The Company will always consult with suppliers/ manufacturers to ensure that they are buying or hiring the lowest vibration tools and components available.
- 8.2 The Supply of Machinery (Safety) (Amendment) Regulations 2011 require suppliers of machinery to provide information relating to the requirements for reducing vibration and expected levels of vibration generation by equipment. In particular, suppliers must provide information on vibration levels if hand-held or guided machinery is likely to expose users to an instantaneous vibration magnitude of more than 2.5 m/s².
- 8.3 The information may be passed onto the purchaser/hirer in a variety of ways e.g. warning labels on machines, technical data sheets or in the instructions manual.

9. Maintenance of Work Equipment

- 9.1 Machinery that is well maintained produces less vibration than poorly maintained equipment. Therefore, tool maintenance programme forms part of a good vibration management programme. Frequency of servicing/maintenance should be based on manufacturers' advice, nature of use of equipment and best practice. (See Appendix B – Tool Management).
- 9.2 Vibration levels are particularly affected by poor lubrication and worn or unbalanced components particularly those designed to reduce vibration such as dampers, anti-vibration mounts etc. In the same way, keeping cutting tools sharp and engines well maintained assist in control of vibration.
- 9.3 The site management team (Site Managers / Supervisors) are keep records of all maintenance work carried out small plant (vibratory) equipment, including any vibration magnitude measurements. These records are to be held within the site files.

10. Safe Systems of Work

- 10.1 There is much that can be done to develop safe systems of work that reduces the exposure to vibration, for example;
- Purchasing alternative low vibration equipment to achieve the same end result;
 - Reducing the vibration transmitted to the hands of operatives;
 - Ensure that the equipment and any components being used are correct for the job and the conditions/ environment;
 - Follow good work practices;
 - Taking breaks to encourage circulation and warm hands.

11. Training

- 11.1 As for all health and safety issues, there is a requirement for information, instruction, training and appropriate supervision, both for operatives exposed to vibration and for those managing the work activities or involved in procurement of equipment.

11.2 Under current legislation training must be carried out within the Company. This training must cover:

- The nature of the risks;
- How to recognise signs and symptoms;
- How and why such signs and symptoms must be reported and to whom;
- Arrangements in place for management of these health issues;
- Actions that workers should take to minimise risk through work practices, wearing of PPE, maintaining equipment, maintaining good circulation and reporting defects.

12. Personal Protection Equipment (PPE)

12.1 PPE is the last form of defence and as such other alternatives require being considered in the first instance. PPE only protects those who wear it for the time they actually wear it, even very short periods of time without wearing protection can significantly reduce the level of protection given.

12.2 There is evidence for the merits of PPE in protecting individuals from vibration. The wearing of warm clothing, in cold conditions does encourage good circulation.

12.3 A requirement of the Personal Protective Equipment Regulations 2002 is that all PPE must be assessed for its ability to protect against the specified hazard(s), suitability for the work conditions and for the individual using it and compatibility with any other necessary PPE whilst being worn. To ensure this is undertaken then supervision must be effective at all times.

12.4 There are also a requirement that the company ensures that PPE is suitably stored, maintained, and cleaned by the workers.

Ready Reckoner for Calculation of Points

The exposures for different combinations of vibration magnitude and exposure time are given in exposure points instead of values in $m/s^2 A(8)$. You may find the exposure points easier to work with than the $A(8)$ values:

- Exposure points change simply with time: twice the exposure time, twice the number of points;
- Exposure points can be added together, for example where a worker is exposed to two or more different sources of vibration in a day;
- The exposure action value (2.5 $m/s^2 A(8)$) is equal to 100 points;
- The exposure limit value (5 $m/s^2 A(8)$) is equal to 400 points;

Vibration magnitude m/s^2	40	800										
	30	450	900									
	25	315	625	1250								
	20	200	400	800								
	19	180	360	720	1450							
	18	160	325	650	1300							
	17	145	290	580	1150							
	16	130	255	510	1000							
	15	115	225	450	900	1350						
	14	98	195	390	785	1200						
	13	85	170	340	675	1000	1350					
	12	72	145	290	575	865	1150	1450				
	11	61	120	240	485	725	970	1200	1450			
	10	50	100	200	400	600	800	1000	1200			
	9	41	81	160	325	485	650	810	970	1300		
	8	32	64	130	255	385	510	640	770	1000	1200	
7	25	49	98	195	295	390	490	590	785	865		
6	18	36	72	145	215	290	360	430	575	720		
5.5	15	30	61	120	180	240	305	365	485	605		
5	13	25	50	100	150	200	250	300	400	500		
4.5	10	20	41	81	120	160	205	245	325	405		
4	8	16	32	64	96	130	160	190	255	320		
3.5	6	12	25	49	74	98	125	145	195	245		
3	5	9	18	36	54	72	90	110	145	180		
2.5	3	6	13	25	38	50	63	75	100	125		
2	2	4	8	16	24	32	40	48	64	80		
1.5	1	2	5	9	14	18	23	27	36	45		
1	1	1	2	4	6	8	10	12	16	20		
		15 m	30 m	1 h	2 h	3 h	4 h	5 h	6 h	8 h	10 h	
		Daily exposure time										

	Above limit value
	Likely to be above limit value
	Above action value
	Likely to be above action value
	Below action value

Using the Ready Reckoner

1. Find the vibration magnitude (level) for the tool or process (or the nearest value) on the grey scale on the left of the table.
2. Find the exposure time (or the nearest value) on the grey scale across the bottom of the table.
3. Find the value in the table that lines up with the magnitude and time. The illustration shows how it works for a magnitude of 5 m/s² and an exposure time of 3 hours: in this case, the exposure corresponds to 150 points.
4. Compare the points value with the exposure action and limit values (100 and 400 points respectively). In this example, the score of 150 points lies above the exposure action value.

The colour of the square containing the exposure points value tells you whether the exposure exceeds, or is likely to exceed, the exposure action or limit value:

5. If a worker is exposed to more than one tool or process during the day, repeat steps 1 – 3 for each one, add the points, and compare the total with the exposure action value (100) and the exposure limit value (400).