|  |
| --- |
|  |
|  |
| **CAL-HS-PD-3501** |
| **Hand Arm Vibration Extended** |
|  |
| **Procedure** |
|  |
| Issue Number: 01 |
| Issue Date: 28 Oct 2024 |

|  |  |  |  |
| --- | --- | --- | --- |
| Document Control | | | |
| Status: | Live | Date: |  |

|  |  |  |
| --- | --- | --- |
| Approval / Acceptance | | |
|  | Author | Approved |
| Title: | Director |  |
| Company: | M2 Safety Consultants Ltd |  |
| Name: | Fraser Morrison |  |
| Signature: |  |  |
| Date: |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Revision History | | | | | |
| This document should be reviewed at least every 12 months to maintain its effectiveness.  Record the details of any changes made as a result of these reviews in the table below: | | | | | |
| Rev: | Date: | Reason for Review: | Nature of Changes: | Prepared by: | Checked by: |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

###### Contents

[1.0 PURPOSE 1](#_Toc181035830)

[2.0 HAZARDS 1](#_Toc181035831)

[3.0 AVOIDANCE OF RISK 1](#_Toc181035832)

[4.0 EQUIPMENT SELECTION 1](#_Toc181035833)

[5.0 MAINTENANCE OF TOOLS AND EQUIPMENT 2](#_Toc181035834)

[6.0 PURCHASING POLICY 2](#_Toc181035835)

[7.0 RISK ASSESSMENT 2](#_Toc181035836)

[8.0 REVIEW 3](#_Toc181035837)

[9.0 EXPOSURE MONITORING 3](#_Toc181035838)

[10.0 REDUCING TIME EXPOSURE THROUGH WORK PLANNING & SCHEDULING 4](#_Toc181035839)

[11.0 PERSONAL PROTECTIVE EQUIPMENT (PPE) 4](#_Toc181035840)

[12.0 EMPLOYEES: TRAINING AND COMPETENCY 4](#_Toc181035841)

[13.0 HEALTH SURVEILLANCE 5](#_Toc181035842)

[14.0 OCCUPATIONAL HEALTH PROVIDER 6](#_Toc181035843)

[15.0 ONGOING MONITORING OF COMPLIANCE 6](#_Toc181035844)

[16.0 Appendix 1 - Vibration Risk Assessment & Control Process 7](#_Toc181035845)

# PURPOSE

1. The company is fully committed to achieving high standards of occupational health. This will be achieved through the implementation and continual improvement of our procedures and processes.
2. The purpose of this procedure is to mitigate, reduce and control the risks of hand arm vibration to our employees.

# HAZARDS

1. Vibration energy from hand held tools and equipment can transfer into the hands and arms, causing damage to the nerves and blood capillaries. This can lead to a range of medical conditions, including carpal tunnel syndrome (CTS), hand arm vibration syndrome (HAV) and in extreme cases can lead to vibration white finger (VWF). When the nerves and blood capillaries are damaged they may not recover i.e. leading to permanent disability.

# AVOIDANCE OF RISK

1. Work will be planned to eliminate or reduce the exposure from vibrating tools i.e. alternative work methods will be explored. The need for risk reduction will be based upon the vibration risk assessment. In particular, care will be taken to avoid or minimise exposure to employees that have already been diagnosed with a vibration health issue through the health surveillance programme. The aim is always to reduce personal daily exposure as low as reasonably practicable (ALARP) where elimination is not an option.

# EQUIPMENT SELECTION

1. The decision about what tools and equipment to use for any task/job will form part of the planning process i.e. proactive, and be in line with the Company planning process.
2. Ensure that the risk assessment and the method statement for the work reflects the most suitable tools and equipment for the job. This should take account of any ergonomic constraints e.g. posture to be adopted and the weight of the tools etc.
3. The HAV ‘task based’ risk assessment will be checked at the planning stage. This will indicate the exposure values for the tasks identified within the Company and the respective ‘best option’ tools/equipment to be used.
4. Operational day to day decisions about any deviation from specified tools and equipment type must be approved by a manager.

# MAINTENANCE OF TOOLS AND EQUIPMENT

1. All tools likely to produce vibration must be subject to appropriate preventative servicing maintenance and testing. Frequencies and type of inspection and test will be in accordance with manufacturer’s requirements or guidelines.
2. The Company will try, at all times, to hire tools from 3 parties. The procurement team will adhere to this and notify management of any issues when hiring tools.
3. When tools are hired, an agreement will be made with the hire company regarding regular service intervals which Supervisors will check that it is being met. Any failures by the hire company to fulfil this will be notified to Management who will raise the matter with the hire company.
4. Where tools are owned by the Company this will be achieved either in-house or by returning the tools to a competent service engineer.
5. Where a tool is unserviceable to the extent that the vibration levels may have increased significantly the tool will be withdrawn from service until suitably rectified.
6. All employees are responsible for carrying out a pre-use / daily visual inspection of equipment; any faults are to be reported to management without delay.

# PURCHASING POLICY

1. Before purchasing tools and equipment likely to pose a vibration risk, the procurement team will request from the supplier a data sheet (or similar) with vibration and noise output data. Upon receiving the data it will be passed to Technical Director to make a purchasing decision. He will compare the manufacturer’s data with data from a second source e.g. INVC database to get a realistic filed use vibration value. Manufacturer’s vibration data will be subject to a 20% increase before comparison.
2. The intention is always to purchase tools and equipment with the least vibration and noise output, balancing the risk against the cost.

# RISK ASSESSMENT

1. The manufacturer’s vibration magnitude data will be obtained for each tool/piece of equipment and 20% added to ensure a more realistic ‘field use’ value. Additionally, a second vibration magnitude figure will be obtained using the service provided by the Industrial Noise and Vibration Centre (INVC) www.invc.co.uk . For tools already in use an alternative will be to carry out real-time vibration measurement using the appropriate calibrated measuring equipment used by a competent person.
2. The Company will Risk Assessment to carry out and record task/job based vibration risk assessments. Vibration magnitude figures and properly measured trigger time information will be used to calculate exposure values for each job.
3. The ‘RAG’ tags will be completed and affixed to the tools/equipment to act as a visual reminder of the risk.

# REVIEW

1. The HAV risk assessment will be subject to review at least every 3 years, and:

* when there is any doubt about its efficacy
* if there is any diagnosis of vibration related ill health
* any changes to tools and equipment (new or replacement)
* availability of tools and equipment
* changes to job/task type or method
* if new technologies become available
* if there are any changes to the Regulation or guidance etc.

# EXPOSURE MONITORING

1. There are two legal levels of exposure referenced over an 8 hour day. These are:

* Exposure Action Value (EAV) = 2.5 m/s2 100 Points
* Exposure Limit Value (ELV) = 5 m/s2 400 Points

1. Initially and at least annually thereafter, those groups of people/tasks identified as approaching the EAV will have vibration points recorded over 5 consecutive working days.
2. The points (taken from the RAG tags) will be recorded.
3. Those personnel identified as being at or above the EAV will undergo continual monitoring until it is shown that management interventions (new or improved control measures) are effective.
4. All personnel identified through health surveillance as having a vibration related condition (HAV or CTS etc.) will undergo continual monitoring (unless they are prohibited from further use of vibrating tools/equipment).
5. The completed form used to record trigger time will be returned to the main office at the end of the week with the weekly time sheet. The data from these will be entered into the recording spreadsheet.
6. The Company will endeavour to keep below the EAV where reasonably practicable, and if at or above the EAV management action will be taken to control exposure and to look for ways of reducing it through the planning process. Management will take all reasonable measures to ensure that personal exposure to vibration is minimised.
7. In the unlikely event that an individual exceeds the ELV despite proactive planning, immediate action will be taken to reduce exposure to acceptable levels i.e. as far below the ELV as reasonably practicable. This will be done by applying job rotation, changing tools and equipment or doing the job differently. The job will be stopped if reduction below the ELV cannot be assured.

# REDUCING TIME EXPOSURE THROUGH WORK PLANNING & SCHEDULING

1. Management will, when planning work take into account the reasonably foreseeable exposure of individuals to vibrating tools and equipment. Where reasonably practicable the task will be mechanised to avoid personal exposure. Where it cannot be mechanised, work will be divided between operatives to reduce personal daily exposure. This will significantly reduce the likelihood of an individual suffering harm from vibration.
2. The HAV risk assessment will be reviewed against the work task to be undertaken so that decisions about allocation of resources, equipment type and numbers of people required (job rotation) can be made.

# PERSONAL PROTECTIVE EQUIPMENT (PPE)

1. All personnel using vibrating tools and equipment are to be provided with suitable wet weather, warm clothing. Gloves are also to be used as appropriate to keep hands warm and dry. Cold hands are more susceptible to damage from vibration.
2. ‘Anti-vibration’ gloves have been shown to provide only negligible reductions in vibration energy transfer to the hands and it is not Company policy to provide them.
3. All employees are to wear/use PPE as indicated by their risk assessments/method statements and as directed by management.

# EMPLOYEES: TRAINING AND COMPETENCY

1. All site employees will be given a copy of the HSE’s INDG296 information pocket card on vibration. This will also be given to all existing employees retrospectively.
2. All site management will undertake the CITB SMSTS, which will cover vibration risk.
3. Specialist training in the use of any vibration measuring equipment will be undertaken by those concerned.
4. All site operatives will complete the CSCS scheme, which makes reference to vibration risk.
5. Tool Box Talks (CITB GT700 – B16) will be given at least annually to all site employees.
6. Additional ‘health & safety’ training covering vibration risk will also be attended in line with the Company training plan, and will cover:
7. which work equipment and processes cause vibration risks and their respective levels of risk
8. how their personal daily exposures compare with the exposure action and limit values
9. what symptoms of ill health they should look out for, to whom they should report them and how they should report them
10. what control measures you plan to introduce to reduce risks
11. the use of personal protective equipment where required, e.g. the need to keep warm
12. what training you plan for operators, supervisors and managers in their respective roles to ensure control of exposure, e.g. through correct selection, use and maintenance of equipment or restriction of exposure times
13. what health surveillance will be provided, how you are going to provide it and why it is important, as well as the overall findings (in anonymous form)
14. What employees’ duties are to:

* follow instructions they are given on safe working practices
* report problems with their equipment such as unusually high vibration levels
* co-operate with your programme of control measures and health surveillance

# HEALTH SURVEILLANCE

1. All site personnel will undertake health surveillance with a competent occupational health provider where the risk of exposure to HAV requires it i.e. the Company will take a ‘risk based’ approach to the provision of health surveillance for vibration.
2. Health monitoring will assess and screen for HAV and other vibration related conditions and attendance is mandatory for employees when notified.
3. Health surveillance will be carried out annually unless a more frequent medical review is required by the occupational health provider.
4. Where the health surveillance identifies that an individual shows signs of HAV or CTS management will take action based upon the medical advice given. This will typically require strict time exposure reduction or removal from usage where early signs are detected.
5. In the case of CTS, the occupational health provider should be requested to clarify the likely cause i.e. if vibration exposure is the probable cause of the CTS. This may necessitate a second opinion, the individual being advised to see their G.P. for further advice etc.
6. Where a condition has been diagnosed this may require the complete removal from using vibrating tools and equipment on a permanent basis. Where this occurs, the Company will endeavour to find alternative employment for the individual concerned, but this cannot be guaranteed.
7. Where health surveillance identifies any condition, the Company will interview the individual and follow this up with a formal letter outlining the action to be taken. Such letters are to be signed by the Operations Manager or a Director.
8. Health surveillance reports will be analysed as soon as they are received. They will act as a trigger for review of the HAV risk assessment, prompting further investigation where necessary and a review of existing control measures.

# OCCUPATIONAL HEALTH PROVIDER

1. The Company will ensure that relevant evidence of suitable qualifications for the occupational health provider is sought and retained. These are:

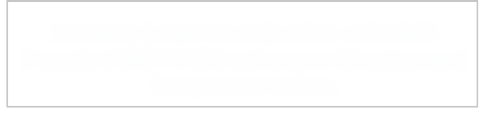
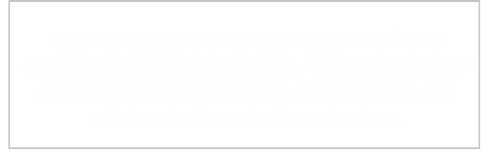
* For doctors: Diploma, Associateship or Member of the Faculty of Occupational Medicine (DipOm, AFOM, MFOM).
* For nurses: Diploma or Degree in Occupational Health or MSc
* Plus: certification for both doctors and nurses from a Faculty of Occupational Medicine approved training course in HAV (see also Health & Safety Executives publication on HAV L140 – Appendix 6), or equivalent level of competency.

1. The occupational health provider will be required (as part of the service level agreement) to comply with this Company HAV procedure, a copy of which will be forwarded to the occupational health provider, including any updates as appropriate.
2. The occupational health provider will submit written health reports to the Company normally within 7 days of completing health surveillance. If a Company employee has been diagnosed with a condition that requires reduction in exposure or removal from the sources of vibration the occupational health provider will be required to notify the Company by telephone as soon as practicable.
3. In the event that the Company changes the occupational health provider, or the occupational health provider ceases to provide the service for any reason, they will be required to transfer all relevant occupational health records to the new occupational health provider (or the Company) as instructed by the Company.
4. In addition to individual health records, the occupational health provider will be required, where practicable, to produce Company-wide anonymous analysis of health trends. This will also be used as part of the review of the HAV risk assessments and control measures.

# ONGOING MONITORING OF COMPLIANCE

1. It will be the responsibility of management to actively monitor compliance with this procedure and to intervene and take action if any non-compliance is observed. This will include the adherence to any restrictions or prohibitions placed upon individuals in relation to the use of vibrating tools and equipment.
2. Where any non-compliance is observed the employee must stop work and be educated. Contact M2 Safety Consultants Limited to notify them of the time, place, action observed, actions taken post incident and the person involved.
3. Where, as part of the review of the HAV risk assessment or this procedure (and its operational application) deficiencies are identified, the improvements required are to be added to the Company HSEQ Action Plan.

# Appendix 1 - Vibration Risk Assessment & Control Process



NO

YES

YES

NO

YES

NO

Review tool risk assessments and ensure Supervisors have copies which are read and signed by employees.

YES

NO

YES

NO

Introduce further controls and ensure risk assessment is kept under review.

NO

YES

Will the ELV (400 Points) be exceeded?

Limit or control exposure so EAV is not exceeded and risks from vibration are minimised.

Can the work be shared or limited so that exposure does not exceed the EAV (100 Points)

Can vibration be shown to be less than the EAV (100 Points), and have risks from exposure been reduced ALARP?

Can vibration exposure be eliminated?

Review vibration & tool RAs for the tasks.

Can work be eliminated or avoided?

Will employees be exposed to vibration?

Pre work plan/ planning meeting to review work.

**Seek advice from Management and do not start or continue with the work.**

If risk assessment shows risk to health or vibration in excess of EAV carry out health surveillance and keep records for each employee.

Carry out work safely, applying information, instruction and training. Review risk assessment if the significant findings change.

Eliminate the vibration. Control of Vibration at

Work Regulations still apply.

Eliminate or avoid doing the work.

Control of Vibration at Work Regulations do not apply.

|  |
| --- |
| A close up of a logo  Description automatically generated |
| M2 Safety Consultants Ltd |
|  |
|  |
|  |
|  |