
Report To:	Policy and Resources Committee	Date:	2 February 2010
Report By:	Head of Organisational Development and Human Resources	Report No:	HR/01/10/PR
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Subject:	Hand Arm Vibration Policy		

1.0 PURPOSE

- 1.1 To ask the Committee to approve a Hand Arm Vibration Policy for the Council. (Appendix 1)

2.0 SUMMARY

- 2.1 The Control of Vibration at Work Regulations 2005 have been in place since July 2005. Since this time Organisational Development and Human Resources have been establishing with Services procedures for implementation of these regulations. This policy formalises these procedures into a corporate policy.
- 2.2 The Health and Safety at Work etc. Act places a duty on employers to prepare a written statement of their general policy and as part of that policy to have in place arrangements for the implementation of Health and Safety. The Hand Arm Vibration policy will form part of the Council's arrangements for Health and Safety.
- 2.3 The policy sets out how the Council will implement the Control of Vibration at Work Regulations 2005 in line with the relevant HSE guidance documentation.
- 2.4 The Workforce Development Strategy was approved by the Policy and Resources Committee on the 26 May 2009 and has three main themes. This particular proposal is contained within Employees – our most valuable resource in that it focuses on health, safety and welfare of our workforce.

3.0 RECOMMENDATIONS

- 3.1 The Committee is recommended to approve the Hand Arm Vibration Policy.
- 3.2 The Committee is asked to support this policy by active promotion of Health and Safety.

Head of Organisational Development
and Human Resources

4.0 BACKGROUND

- 4.1 Inverclyde Council are required to ensure that the risks to employees, from the use of hand held vibratory equipment are assessed in line with its legal duties as defined by the Control of Vibration Regulations 2005, the Management of Health and Safety at Work Regulations 1999 and the Health and Safety at Work etc. Act 1974.
- 4.2 By law (Health and Safety at Work etc Act 1974 section 2(3)) if you employ five or more people you must have a written health and safety policy. This contains a statement of general policy on health and safety at work and the organisation and arrangements in place for putting that policy into practice. The Hand Arm Vibration Policy details the arrangements the Council has in place for assessing the risk from hand held vibratory equipment.
- 4.3 The Hand Arm Vibration Policy sets a clear direction for the Council to follow; it will contribute to all aspects of business performance as part of a demonstrable commitment to continuous improvement. It will demonstrate a shared common understanding of the Council's vision, values and beliefs. A positive Health and Safety culture is fostered by the visible and active leadership of senior managers. This is reflected within the policy.
- 4.4 The policy consists of the following main sections:
- Statement of Policy
 - Roles and Responsibilities
 - How the Policy should be implemented
 - Health Surveillance Requirements
 - Information and Training Requirements

5.0 PROPOSALS

- 5.1 The Corporate Hand Arm Vibration Policy to be adopted by Inverclyde Council and used as a framework to further enhance the safety of employees and those affected by the work of the Council.

6.0 IMPLICATIONS

- 6.1 Finance: None
- 6.2 Human Resources: None
- 6.3 Legal: None
- 6.4 Equality: None

7.0 CONSULTATION

- 7.1 The Hand Arm Vibration Policy has been coordinated through the Corporate Health and Safety Committee with Health and Safety seeking the views of both union and management colleagues. The Trades Unions have agreed the Hand Arm Vibration Policy.

8.0 BACKGROUND PAPERS

- 8.1 Appendix 1 – Hand Arm Vibration Policy

Organisational Development and Human Resources

The Control of Vibration at Work Regulations 2005 Hand Arm Vibration

Version 1.1



Produced by:
Health and Safety, OD&HR
Inverclyde Council
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GREENOCK
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January 2010

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DOCUMENT CONTROL

Document Responsibility		
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Change History		
Version	Date	Comments
1.0	Nov 09	Version 1.0 issued for Comment and Consultation
1.1	Dec 09	Minor changes relating to comments received.

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1 Introduction

It has been recognised that exposure to prolonged and regular use of high-vibration hand-held tools which can have an adverse health effect on the hands and arms of the users. Without effective controls, workers using such equipment may suffer various ill health effects, collectively known as 'hand-arm vibration syndrome' (HAVS). The most commonly occurring condition is 'vibration white finger' (VWF), which is a prescribed industrial disease. It is a disorder of the blood supply to the fingers and hand caused by long-term use of vibrating hand-held tools. This is a painful condition and the effects not only include impaired blood circulation, but damage to the nerves and muscles and loss of ability to grip properly.

The Control of Vibration at Work Regulations 2005 (as amended) places a duty on employers to ensure that the risks from Hand Arm Vibration and Whole body Vibration are controlled.

This documentation is intended to assist management and employees, to assess the risk from Hand Arm Vibration and where appropriate, implement a management system to eliminate, reduce and control the likelihood of such an occurrence or event, by:

- Evaluating the levels of risk
- Elimination of the risk
- Prioritising action required according to risk
- Introduction of control measures such as; purchasing requirements, reduced exposure and training
- Carrying out health surveillance.

This document also provides technical advice for management and employees to implement any necessary control measures identified through assessment. Some of the recommendations may not be appropriate for all work activities or machines, and may need to be adapted for local circumstances. However, this document provides a basis for the development of management systems for those risks created by vibration.

2 Statement of Policy.

2.1 Policy

Inverclyde Council will undertake to meet the requirements of the Control of Vibration at Work Regulations 2005 (as amended) by implementing and maintaining a risk assessment programme to identify risks resulting from exposure to hand held vibratory equipment of all types operated on behalf of the authority.

The results of the assessments will be used as a basis to provide suitable information, instruction and training to employees and to assist in the provision of appropriate management systems and equipment as required by the above regulations.

2.2 Risk Assessment

Under the MHSW Regulations employers are required to undertake an assessment of the risk of potential hazards that may adversely affect the health or safety of employees. Significant hazards should wherever possible be eliminated and where this cannot be achieved, suitable control measures have to be put in place to minimise the risk.

In considering whether the Council is taking reasonable care to prevent a reasonably foreseeable risk of HAVS or taking reasonable steps to eliminate a risk which it knows of, or ought to know of, the risk must be a real one based on an objective assessment.

A risk assessment for HAVS may include:

- An investigation into plant and equipment at work which may have the potential to cause HAVS;
- Identifying who may be harmed;
- Assessing whether the respective service is doing enough to prevent excessive exposure to HAVS.

2.3 Operational Approach to Managing HAVS

The key areas which will have the greatest effect on reducing HAVS, within the relevant departments of the Council are:

- Exposure control;
- Information, instruction and training;
- Process design;
- Purchase specification;
- Maintenance
- Health surveillance

Due to the varied nature of the Council's work activities, whereby some operatives vary their work activity whilst others carry out the same repetitive operation continually, a planned preventative programme is required to reduce the risk of HAVS. This will incorporate the following procedures to be introduced, as appropriate, by the relevant departments:

- Identification and assessment of those processes with the potential to produce hand-transmitted vibration
- A purchasing strategy which will ensure all equipment meets the requirements of the HSAWA and PUWER.
- Ensuring the reduction of HAVS, either by replacing sub-standard tools and machinery or eliminating the hazard through new processes and technology
- Consideration of job rotation and reduction of exposure times where vibration exposure cannot be reduced below the currently accepted standards (as detailed in section 8 Implementation)
- Arrangements for specific schedules of maintenance and servicing of equipment involved
- The provision of information and training of employees on the risk of HAVS
- Introduction of programmes of preventative measures such as health surveillance which will be co-ordinated and carried out by the Council's occupational health provider
- A review of risk assessment by the relevant departments including consultation with employees on suitable preventative measures
- Introduction of appropriate measures to reduce exposure to HAVS.

3 AIMS

3.1 This policy aims to:

- Identify where employees are exposed to hand arm vibration and whole body vibration.
- Provide timely, effective and appropriate assessments of the risk to employees from exposure to vibratory equipment.
- Recognise that action to prevent exposure to vibratory equipment is more effective than dealing with it after it has arisen.
- Ensure employees, managers and supervisors are given appropriate information, instruction and training in the use of vibratory tools and equipment and the potential ill health effects.
- Encourage the creation of a working environment in which employees and managers are proactive in the identification of exposure to vibratory tools or equipment.
- Provide appropriate health surveillance for employees exposed to vibratory tools or equipment.
- Provide support for employees who have been diagnosed with ill health due to exposure to vibratory tools or equipment while in employment with Inverclyde Council.

4 Scope

This policy applies equally to all employees regardless of grade, experience or role within the organisation. The policy also applies to contracted staff as far as is reasonably practicable and to any external organisations, contractors or members of the public using Council premises.

5 Consultation and Impact Assessment

5.1 Inverclyde Council recognises the importance of employee consultation and is committed to involving all employees in the development of policies and procedures. The following groups are formally consulted:

- Trade Union Representatives through the Corporate Health and Safety Committee.
- All Chief Officers.
- Employees via the Council Intranet.

5.2 An Equalities Impact Assessment was carried out using the Council's Equalities Impact Assessment Template.

6 Legal Framework

The following legislation underpins this policy.

- 6.1 The Council has a general duty of care under section 2 of the Health and Safety at Work etc Act (HASWA) to provide a safe place of work, a safe environment and safe systems of work, so far as is reasonably practicable. This includes the need to minimise the risk arising from vibration.
- 6.2 the Provision and Use of Work Equipment Regulations 1992 (as amended) (PUWER) requires the Council to assess the risks when selecting work equipment, and any additional risk posed by the use of that equipment.
- 6.3 The Reporting of Diseases and Dangerous Occurrence Regulations 1995 (as amended) (RIDDOR) requires that if a doctor confirms that an employee has HAVS or Carpel Tunnel then if the employee meets the criteria within the RIDDOR regulations it must be reported to the enforcing authority. Appendix 1.
- 6.4 The Control of Vibration at Work Regulations 2005 (as amended) require the Council to implement and maintain a risk assessment programme to identify risks resulting from exposure to hand held vibratory equipment of all types operated on behalf of the authority.
- 6.5 The Management of Health and Safety at Work Regulations 1999 (as amended) are require employers to undertake an assessment of the risk of potential hazards that may adversely affect the health or safety of employees.
- 6.6 The Management of Health and Safety at Work Regulations requires employers to provide appropriate health surveillance for employees where their risk assessment shows it to be necessary.

7 Roles and Responsibilities

The recognition and management of HAVS is an integral part of the Council's responsibility to its employees, and the role of Corporate Directors, Heads of Service, Managers, Team

Leaders Supervisors and Employees in addressing HAVS related issues is vital. As a caring employer the Council is aware of its responsibility for the health, safety and welfare of its employees and recognises that their well being is important to its performance. In view of this it is crucial that the responsibilities for the management of HAVS within the workplace are explicit and clearly defined.

7.1 Corporate Directors, Heads of Service, Managers, Team Leaders and Supervisors

Corporate Directors, Heads of Service, Managers Team Leaders and Supervisors are responsible, so far as is reasonably practicable, for ensuring the health, safety and welfare at work of all employees in their respective service. These responsibilities are detailed in the Corporate Health and Safety Policy. With regards to HAVS, the responsibilities include the following:

7.1.1 Corporate Directors and Heads of Service

- Ensuring that risk assessments are carried out on all job tasks including the use of vibrating tools/equipment.
- Ensuring that any purchasing of equipment follows the guidelines in 8.7.4 below.
- Ensuring that employees are not to be exposed to vibration in excess of the HSE's daily exposure limit value of $5 \text{ m/s}^2 \text{ A (8)}$ for an eight hour working day. A risk assessment will identify those items of machinery or tools which exceed the daily exposure action value of 2.5 m/s^2 . Wherever practicable, the Physical Agents Directive recommended A(8) of 2.5 m/s^2 will not be exceeded, where this value is exceeded the Council will ensure that exposure to vibrating machinery is kept as low as reasonably practicable. (Further guidance on the exposure criteria is available within the Health and Safety Pages of ICoN)

7.1.2 Managers, Team Leaders and Supervisors

- Arranging and monitoring an adequate maintenance programme to ensure that existing tools and equipment are identified, marked, and added to their register. Tools and equipment must be periodically serviced to reduce adverse changes in vibration and noise characteristics.
- Ensuring that all employees are aware of their responsibilities to advise their line manager of any symptoms which they have developed that may be associated with HAVS
- Utilising the health surveillance programme set up within the council, whereby 'at-risk' employees will receive an annual routine health assessment by the occupational health service
- Acting promptly by informing the occupational health service of those employees identifying possible HAVS symptoms and discouraging employees from waiting until their next scheduled health assessment
- Ensuring that all employees are kept informed, trained and given health surveillance where appropriate

- Instigating occupational hygiene checks (as necessary) to measure exposure to vibration, thus validating the department's HAVS risk assessments. Advice on the best means to carry out vibration checks is available through the Council's Health and Safety Advisors.

7.2 Employees

Employees' responsibilities include:

- Providing an input on health and safety issues which may affect their well-being and that of their work colleagues
- Reporting matters of concern relating to health and safety, including reporting what they consider to relate to HAVS at work to an appropriate manager
- Co-operating with managers and other employees in dealing with HAVS and the implementation of this policy
- Familiarising themselves with Hand Arm Vibrations Syndrome via attendance at training sessions or through the literature provided.
- Making use, where appropriate, of the occupational health service provided by the Council

7.3 Human Resources and the Occupational Health Service

The Council's Organisational Development, Human Resources and Performance Service in conjunction with the Council's Occupational Health Service providers responsibilities include:

- Arranging initial health assessments and monitoring 'at risk' employees who are known to work with machinery or tools featured within *Management Guidance for the Prevention of Hand-arm Vibration Syndrome*.
- Providing information on the medical aspects of HAVS, and health surveillance to management and employees.
- Ensuring that known cases of HAVS are referred and monitored by a specialist occupational physician.
- Establishing a programme of control measures, and medical records which must be kept for 40 years from the date of the last exposure.
- Working closely with Services to ensure all "at-risk" employees receive appropriate health surveillance.
- Provide information to Services on instances of Hand Arm Vibration or Carpel Tunnel to ensure compliance with the requirements of RIDDOR.

7.4 Health and Safety Advisors

Health and Safety Advisors responsibilities include:

- Liaising with Directorates to facilitate best practice improvements, assisting with training, and providing information on all aspects of risk assessments, especially those related to tools and machinery with the potential to cause harm through vibration.

- Ensuring that all known cases of HAVS are reported by Services to the Health and Safety Executive where appropriate in connection with the Occupational Health Service.

8 Implementation

This section provides guidance on Hand Arm Vibration and the implementation of this Policy within Inverclyde Council.

8.1 Hand Arm Vibration

Hand-arm vibration syndrome (HAVS) is a general term for various types of damage, including:

- Vascular disorders which cause impaired blood circulation and blanching of the affected fingers and parts of the hand. These are generally known as vibration-induced white finger
- Neurological and musculoskeletal damage leading to numbness and tingling in the fingers and hands, reduced grip strength and dexterity and reduced sensitivity of touch and temperature.

8.2 Effects of Vibration Injury in the Hands

In the first stages of vibration injury, the employee will notice a tingling sensation or “pins and needles” in the fingers. This is most noticeable at the end of the working day and may be accompanied by numbness. With continued exposure, the person may suffer periodic attacks in which the fingers change colour when exposed to the cold. In mild cases, the whiteness and numbness only affect the tips of the fingers. If the condition becomes more severe, the whole finger down to the knuckles becomes white. This phase is followed by an intense red flush (sometimes preceded by a dusky bluish phase) signalling the return of blood circulation to the fingers and is usually accompanied by uncomfortable throbbing.

In more severe forms, attacks occur frequently in cold weather. They are likely to take place not only at work, but during activities such as gardening, car washing, fishing, or watching outdoor sports. The attacks may last up to an hour, causing considerable pain and loss of manual dexterity, and reduced grip strength. As the condition worsens, attacks can even occur in warm surroundings.

8.3 Identifying Hazardous Work and Assessing Risk

Work activities which require regular and frequent use of vibrating tools and equipment are found in a wide range of council activities, for example:

- Building and maintenance of roads;
- Construction, i.e. Building Services;
- Arboriculture i.e. Tree Squad;
- Grounds services (e.g. maintenance of roadside verges, green spaces and parks);
- Vehicle repairs;
- Cleaning, i.e. use of buffers.

Common tools and processes likely to create hazardous levels of vibration are listed below. They will not always cause injury, because the risk also depends on many other factors (see section - Factors Contributing to Risk):

- Chainsaws;
- Concrete breakers/road drills;
- Hammer drills;
- Hand-held grinders;
- Hand-held sanders;
- Pedestal grinders;
- Power hammers and chisels;
- Powered grass cutting equipment;
- Strimmers/brush cutters;
- Buffers.

The above list is not comprehensive but as a general rule of thumb if a process using machinery that is suspect, causes fingers to tingle after 5-10 minutes use, then it can be classified as a possible hazard.

8.4 Factors Contributing to Risk

The main cause of HAVS is work which involves holding vibrating tools or work-pieces. Vibration with a frequency ranging from about 5 to 1500 Hz is considered potentially damaging, and is most hazardous in the range from about 5 to 20 Hz. The risk depends on the magnitude of vibration, the frequency and how long people are exposed, as well as the individual's personal susceptibility. Several other factors also affect the severity of the risk, although there is still only limited scientific information on their importance and the way they interact. These include:

- The grip, push and other forces used to guide and apply vibrating tools or workpieces. A tight grip transfers more vibration energy to the hand;
- The exposure pattern – length and frequency of work as well as rest periods. It is better to break up periods of exposure;
- How much of the hand is exposed to vibration;
- Factors affecting blood circulation, such as cold weather and smoking
- Individual susceptibility.

8.5 Assessment and Reduction of Risk.

There are five steps to carrying out a vibration risk assessment:

Step 1 Look to see if there is a vibration problem to manage. Is HAV a significant hazard in your workplace?

Step 2 Identify all workers likely to be exposed.

Step 3 Evaluate the risks arising from the vibration – estimate daily vibration exposures and identify appropriate further actions to control the risk.

Step 4 Record the findings of the risk assessments

Step 5 Review the assessments and revise as required.

Where an employee is exposed to a vibration, details of this risk must be incorporated within the risk assessment process. This may include a full assessment of the vibration levels associated with certain types of machinery. These vibration assessments must be conducted by a competent person with specialist equipment who has been trained to take and interpret measurements. When deciding the risk rating for the use of hand held vibration tools many factors will need to be taken into consideration. However, the following may be used as a rough guide.

RISK	HAV Levels in (A8) m/s ²
Low	Below 2.5
Medium	Between 2.5 and 5.0
High	5.0 and above

Once a risk category has been established these assessments must be reviewed on a regular basis. The following time-scales should be used as a guide.

Low Risk	<ul style="list-style-type: none"> If you have reason to believe the circumstances have changed significantly.
Medium Risk	<ul style="list-style-type: none"> At least every two years
High Risk	<ul style="list-style-type: none"> Continuous review minimum every year

More Information on the Measurement of Vibration is given in Appendix 1. Information on technical terms is available in Appendix 2.

8.6 Hand Arm Vibration “Action Levels”

The following levels are, so far as is reasonably practical, to be complied with at all times when using and purchasing equipment.

A(8) RMS Value	Action Required
Less than A(8) 2.5 m/s ²	<ul style="list-style-type: none"> • Monitor and review if it is believed that this level could be increased
Above A(8) 2.5 m/s ²	<p>First Action Level</p> <ul style="list-style-type: none"> • Manufacturers must provide information on levels of vibration exposure • Vibration risk assessment required • Review safe systems of work to minimise exposure as far as is reasonably practicable • Information, instruction and training to employee/representatives • Employees must undergo health surveillance programme • Immediate implementation of control measures • Records of assessments and control measures to be maintained
A(8) 5.0 m/s ²	<p>Exposure Limit Level</p> <ul style="list-style-type: none"> • No equipment is to be used above this level
<p>Where any vibrating equipment is regularly used, Line Managers must remain alert for symptoms among the employees which, once reported, should be investigated by Health and Safety Section.</p>	

8.7 Strategy to Reduce Vibration

Where employees carry out activities which exposes them to risks involving vibrating equipment, then a strategy to reduce the levels of vibration, so far as is reasonably practicable, must be developed.

An effective strategy involves the following steps:

- Identifying the main sources of vibration and ranking them in terms of their contribution to the hazard.
- Developing and implementing an effective procurement strategy which must Identify and evaluate potential solutions in terms of practicability and cost.
- Establishing targets, which can be realistically achieved?
- Allocating priorities and establishing an ‘action programme’.
- Defining management responsibilities and allocating adequate resources.
- Implementing the programme and monitoring progress.

8.7.1 Minimising Vibration Exposure

Vibration directed into employee's hands should be eliminated or reduced. Measures to achieve this include:

- Eliminating the hazard by substituting other non-hazardous activity.
- Modifying machinery or activity.
- Reducing vibration transmission from the source to the employee's hands.
- Minimising the forces needed to apply and control the equipment.
- Reducing exposure, e.g. job rotation

8.7.2 Process Design

Substitution of low-vibration processes can contribute to reducing vibration exposure.

Examples include:

- Using mobile road cutting machines instead of hand held portable systems
- Reducing the use of road drills to demolish reinforced concrete by the introduction of hydraulic crushing or nibbling techniques
- Training employees in operating techniques which minimise the need to grip equipment and work pieces tightly
- It is better for work to be arranged so that periods of exposure are broken by periods of work which do not involve vibration
- Job rotation within the work team can help to keep individual exposures down e.g. one person using the equipment and the other person doing work which does not expose them to the vibration hazard, after a period of time the two employees could alternate their duties.

Account of this should also be taken when drawing up project designs, especially when involving Construction Design Management (CDM).

8.7.3 Maintenance

Regular equipment servicing can help to keep vibration to a minimum. Suppliers can provide information of service schedules. The following measures should be implemented to help minimise vibration exposures:-

- Keeping cutting / chipping tools sharp
- Dressing grinding wheels correctly by following manufacturers recommendations
- Replacing anti-vibration mounts and suspended handles before they deteriorate. Look for deterioration or the cracking, swelling and softening (or hardening) of rubber mounts
- Checking and replacing vibration dampers, bearings and gears
- Tuning engines.

8.7.4 Selection of Equipment

When selecting equipment the following should be considered.

- Make sure the equipment selected or allocated for tasks is suitable and can do the work efficiently. Equipment that is unsuitable, too small or not powerful enough is likely to take longer to complete the task and expose employees to vibration for longer than is necessary.
- Select the lowest vibration tool that is suitable and can do the work efficiently.
- Limit the use of high-vibration tools wherever possible.

8.7.5 Purchase of Equipment

Work equipment is likely to be replaced over time as it becomes worn out, and it is important that you choose replacements, so far as is reasonably practicable, which are suitable for the work, efficient and of lower vibration.

- Discuss your requirements with a range of suppliers.
- Check with suppliers that their equipment is suitable and will be effective for the work, compare vibration emission information for different brands/models of equipment, ask for vibration information for the way you plan to use the equipment, and ask for information on any training requirements for safe operation.
- Get your employees to try the different models and brands of equipment and take account of their opinions before you decide which to buy.
- Find out about the equipment's vibration reduction features and how to use and maintain the equipment to make these features effective.
- Make sure your organisation has a policy on purchasing suitable equipment, taking account of vibration emission, efficiency and your specific requirements.
- Train purchasing staff on the issues relating to vibration so that they can deal effectively with equipment suppliers.

In accordance with Health and Safety Legislation, equipment suppliers must provide information about vibration magnitudes which their products are likely to create in normal use. The Council shall assess vibration magnitude as essential criteria when selecting hand held equipment. A purchasing specification should incorporate maximum vibration magnitudes and test procedures which suppliers have to comply with. The Supply of Machinery Regulations requires manufacturers to provide details of vibration magnitude if equipment exceeds a RMS of 2.5 m/s^2 for HAV. Manufacturers data must however, be looked at with some caution as they may not necessarily be measurements of levels sustained when equipment is put to your particular use.

The following list suggests some possible questions to ask manufacturers.

- Is the vibration of any handle or other surface in contact with the user likely to exceed a RMS acceleration of 2.5 m/s^2 for HAV. If the answer is YES, then:
 - What is the frequency-weighted RMS acceleration?:

- Under operating conditions producing the highest vibration?
- Under typical operating conditions?
- If tests were in accordance with a published standard, provide details.
- What measures have been taken to minimise vibration?
- Are additional vibration reduction measures practicable?
- Give details of any design changes, the additional cost and any production penalties.
- What other measures are required to minimise the vibration hazard to which employees are exposed when using the tool or equipment in question.

8.8 Preventative Control Measures

A preventative programme should be implemented to control the risk of injury where there is regular prolonged use of equipment likely to be hazardous, or where it is known that vibration exposure will exceed the Exposure Action Value of 2.5ms^{-1} . The programme will include:

8.8.1 Information, Instruction and Training

Employees and their safety representatives must be trained and provided with information on:

- The nature of the risk, and symptoms of injury;
- How and why any symptoms of injury should be reported
- Action employees should take to minimise risk, including:
 - Using working practices designed to minimise vibration:
 - Maintaining good blood circulation
 - Reporting defects and problems with equipment.
- All employees exposed to risks from hand arm vibration must be provided with the Employees HAVS Guidance leaflet, this can be downloaded from the Council intranet (ICON)
- Details of any health surveillance programme in place.

8.8.2 Maintaining Blood Circulation.

Keeping the hands and body warm helps maintain good blood flow to the fingers and reduce the risk of injury. Where employees have to work in cold conditions, specific measures might include:

- Wearing gloves, using tools with heated handles
- Avoiding pneumatic exhausts which discharge towards the employees hands
- Arrangements to allow employees to warm up before starting work, and appropriate welfare facilities for outdoor employees to use in work breaks

- Wearing warm, weatherproof clothing for work in cold or wet conditions
- Avoiding or cutting down smoking
- Massaging and exercising fingers during work breaks will also help blood circulation.

9 Health Surveillance

9.1 General

The aim of health surveillance is to stop significant health deterioration by providing both pre-employment checks and routine monitoring of employees exposed to vibratory equipment. The Council will arrange Health Surveillance where employees exposure may exceed an A(8) of 2.5 m/s^2 . The Council have appointed a suitable Occupational Health provider to medically assess and provide appropriate advice, for activities that are identified as giving rise to significant risk from vibration.

Employees will be consulted to ensure that they are aware of the purpose and methods of the surveillance, and of any subsequent action that may be required for the control of HAVS, such as re-deployment. The Council Policy for re-deployment is currently in draft format, this will provide the procedure to be followed by Services. Employees will be informed of the results of each assessment and/or examination and of any implications of the findings, such as a requirement to modify or reduce vibration exposure. There will also be an opportunity to discuss such implications at the time when health assessments are made. Employees exposed to vibration will participate in a regular health surveillance programme including where appropriate, self-assessments, assessments conducted by an Occupational Health Nurse and any referral to an Occupational Health Physician or for a specialist medical assessment. An employee reporting symptoms of HAVS will be referred for assessment to an Occupational Health Nurse.

9.2 Requirement for Health Surveillance

Health surveillance is appropriate in the following circumstances, when:

- Individuals are using equipment known to cause HAVS (unless a risk assessment demonstrates that the risk is adequately controlled or insignificant)
- Individuals are identified with HAVS symptoms during the employee recruitment process
- Existing cases of HAVS are present in the workforce
- There is regular exposure to vibration exceeding 2.5 m/s^2 A(8).

9.3 Records

Records of employee HAVS occupational health surveillance must be maintained and kept for a minimum of 40 years. In order for the Council to provide a safe and healthy working environment, employees are requested to co-operate with the Council and allow access to HAVS occupational health surveillance records, however medical information is confidential and will not be released to the Council by the Occupational Health Provider without the express permission of the employee. When an employee has undergone a HAVS assessment the Occupational Health Provider will inform Organisational Development & Human Resources if the employee is fit to work with vibrating equipment. Human Resources

will ensure that any information relating to an employees fitness to work with Vibrating tools is passed to the relevant service promptly.

10 Information and Training

10.1 Information

Inverclyde Council recognises the need to provide staff with relevant information on working with vibratory equipment. Employee awareness will help with the implementation of the policy and the management of exposure to vibratory equipment. Information on the management of exposure to vibratory equipment will be made available on the Council's Intranet System, via Line Managers and Trade Union Safety Representatives or via the information library held by Health and Safety. The information will be updated on a regular basis.

10.2 Training

The Council recognises that training of managers and employees is important to ensure that all employees have the necessary skills to reduce, or if this is not possible control, the risks from vibratory equipment. The following training will be made available through the Corporate Training planner or if identified through the risk assessment process other specialist training can be made available. All training provided will include information about this Council policy.

The management of HAVS is largely a matter of good work practice and a strict maintenance programme. Training will benefit employees by equipping them with the skills and knowledge required to work with vibratory equipment. Awareness training for managers and tool box talks for employees will be provided as required. Effective induction is also essential, not only for new employees but also for those who take up a new post within the Council. If redeployment issues arise, departments should consider employees' skills and experiences to assist with retention of competent staff. Additional training or retraining in other areas may be required.

The following training is available:

- The management of Hand Arm Vibration
- Hand Arm Vibration Awareness for employees
- Tool box talks on Hand Arm Vibration

10.3 Communication of the Policy

The Council recognises the importance of communicating the policy to all employees. This policy will be communicated to staff via the Corporate Health and Safety Committee, the Council's team briefing system and a copy will be placed on the Council's Intranet system.

11 Monitoring, Evaluation & Review

This policy was ratified by the Council's Policy and Resources Committee on 2nd February 2010 and implemented immediately thereafter.

Regular monitoring and review are necessary to measure the effectiveness of the policy and to ensure it remains relevant to the needs of the Council. The Head of OD&HR will have responsibility for the on-going monitoring and review of the policy, including taking action to amend the policy, where required, in consultation with staff.

The policy will be reviewed 12 months from implementation and every three years thereafter unless there is significant change in legislative requirements or risk assessment identifies a need for review. Measuring the effectiveness of the policy will include a review of Hand Arm Vibration Assessments, Occupational Health reports on cases of HAVS or other conditions which may be attributable to the use of vibratory equipment, and feedback from employees.

APPENDIX 1

Reportable work related diseases in relation to the use of vibratory equipment.

Carpal tunnel syndrome.	Work involving the use of hand-held vibrating tools.
Hand-arm vibration syndrome.	<p>Work involving:</p> <ul style="list-style-type: none"> (a) the use of chain saws, brush cutters or hand-held or hand-fed circular saws in forestry or woodworking; (b) the use of hand-held rotary tools in grinding material or in sanding or polishing metal; (c) the holding of material being ground or metal being sanded or polished by rotary tools; (d) the use of hand-held percussive metal-working tools or the holding of metal being worked upon by percussive tools in connection with riveting, caulking, chipping, hammering, fettling or swaging; (e) the use of hand-held powered percussive drills or hand-held powered percussive hammers in mining, quarrying or demolition, or on roads or footpaths (including road construction).

APPENDIX 2

Measurement of Vibration and Exposure

Vibration measurement and assessment must only be undertaken by competent persons who have been trained to take and interpret measurements. The results of vibration measurement are usually given as displacement, velocity or acceleration of vibrating surfaces. The health hazard aspect is usually measured as an average root-mean-square (RMS) acceleration level, using an instrument with a standard 'frequency weighting network' or accelerometer to reduce its sensitivity at the less damaging high and low frequencies. This gives 'frequency-weighted' acceleration ($A_{h,w}$) in ms^2 . International Standard EN ISO 5349 describes the procedure in detail for making these measurements.

The vibration 'dose' received by an employee over a typical working day depends on exposure duration as well as vibration magnitude. To allow for different patterns of magnitude and duration, they are adjusted to a standard reference period of 8 hours however long the actual exposure period is. The International Standard EN ISO 5349 describes how employee exposure is calculated.

Further information is available from the HSE website
<http://www.hse.gov.uk/vibration/index.htm>

APPENDIX 3

Technical Information
Abbreviations and Explanation of Terms

a_h	a; Acceleration. H; Hand; this is the level of acceleration experienced in the hand (non frequency weighted)
$A_{h,w}$	a; Acceleration. H; Hand; this is the level of acceleration experienced in the hand (Frequency weighted)
A(8)	Total vibration dose calculated for a standard 8 hour day
Action Level	A level at which certain actions are required
Frequency	It is the number of oscillations in a given time and is measured in Hertz
Frequency weighted	This is the filter that allows greater emphasis to be taken of the most hazardous vibration frequencies
HAV	HAV(Hand Arm Vibration); this is the level of vibration that is transmitted to the hands and arms when holding or guiding vibrating equipment
HAVS	Hand Arm Vibration Syndrome; This is the generic term for the damage caused to the hands such as impaired blood circulation, nerve and muscle damage, after excessive exposure to HAV. This may also be known as Dead Hand, Dead Finger or VWF(See below)
Hz	Hertz; Measurement used to indicate frequency
m/s^2	Metres Per Second Squared. This is a measure of acceleration of an object, i.e. the rate of change in speed.
Musculoskeletal	Medical term – relating to damage to muscle and bone tissue
Magnitude	The degree of oscillation
Neurological	Medical term – relating to the human nervous system
Oscillation	Movement to and fro between points
RMS	Root Mean Square; This is an average of all the acceleration levels on all the measured axes. This is a common measure of damage potential and is measured in m/s^2
Vascular	Medical term – relating to or possessing many blood vessels
Vibration Dose	This is the total level of vibration that is experienced by the employee (most likely to be calculated as an A(8) level).
VWF	Vibration White Finger (See HAVS)