DISPLAY SCREEN EQUIPMENT GUIDANCE

Title	Display Screen Equipment Guidance
Who should use this	All Staff
Author	SAC/Adapted by AVJB
Approved by Management Team	12 July 2017
Approved by Joint Board	
Reviewer	**Office Manager**
Review Date	**2023**

Review History

REVIEW NO.	DETAILS	RELEASE DATE
1	New	July 2017
2	Address changes within section 9.	October 2020
3		
4		
5		
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1. INTRODUCTION

The implementation of the Health and Safety (Display Screen Equipment) Regulations 1992 set minimum health and safety requirements for working with display screen equipment (DSE). These regulations do not replace requirements of other safety legislation.

The aim of this Guidance is to provide assistance to management and employees on the safe use of DSE as required by the above legislation.

2. WHAT IS DSE?

DSE is any alphanumeric or graphic display screen, regardless of the display process involved. This includes both conventional (cathode-ray tube) display screens and other types such as liquid crystal or plasma displays used in flat-panel screens, touchscreens and other emerging technologies. Screens showing mainly TV or film pictures are not covered. The regulations are not limited to typical office situations or computer screens and also cover non-electronic display systems such as microfiche.

The following are not covered by these regulations: window typewriters, calculators, cash registers and other equipment with small data displays, portable systems not in prolonged use, display screen equipment mainly intended for public use (cash points etc.) or on a means of transport and in drivers' cabs for vehicles or machinery.

NB
It is important to recognise that portable systems such as laptops, tablet computers, and personal data assistants are encompassed within the regulations if they are in prolonged use.

A **User** is a full or part-time employee that habitually uses DSE for a large portion of his or her normal work and is:

- at their own employer's workstation

- working from home; or

- at another employer's workstation

An **Operator** is a self-employed person who work at an employer's workstation and whose use of DSE is such that they would be users if employed.

It is generally considered that a User or Operator:

- normally use DSE for continuous or near-continuous spells of an hour or more at a time; and

- use DSE in this way more or less daily; and

- have to transfer information quickly to or from the DSE

- also need to apply high levels of attention and concentration

- or are highly dependent on DSE or have little choice about using it

- or need special training or skills to use the DSE

A **workstation** is the immediate work environment around the DSE, including all accessories, desk, chair, keyboard, printer and other peripheral items.

NB **Users and Operators working from shared workstations are subject to the requirements of the regulations.**

3. THE MAIN HAZARDS OF DSE WORK

The following hazards are related to DSE use: -

Musculoskeletal Disorders
Musculoskeletal disorders are the most common health condition associated with DSE activities. A range of musculoskeletal disorders of the arm, hand, shoulder and neck linked to work activities are now described as 'upper limb disorders' (ULDs) or 'work-related upper limb disorders' (WRULDs). These range from temporary fatigue or soreness in the limb to chronic soft tissue disorders such as tendonitis or carpal tunnel syndrome. Some keyboard operators may suffer from occupational cramp.

Eyes and Eyesight Effects
Medical evidence shows that using DSE is *not* associated with permanent damage to eyes or eyesight; nor does it make existing defects worse. However, because of the duration of DSE work and use of specific eye focal ranges some workers may experience temporary visual fatigue, leading to a range of symptoms such as impaired visual performance, red or sore eyes and headaches, or the adoption of awkward posture which can cause further bodily discomfort. Consequently, it is logical to use the appropriate corrective appliances for DSE work to help avoid any visual discomfort being experienced while enhancing the performance of the DSE activity.

Other Minor or Alleged Health Effects

Epilepsy
Work with DSE has not been known to induce epileptic seizures. People suffering from the very rare (1 in 10,000 population) photosensitive epilepsy who react adversely to flickering lights and patterns find they can safely do normal office tasks using a display screen.

Facial dermatitis
Some DSE users have reported facial skin complaints such as occasional itching or reddened skin on the face and/ or neck. These complaints are rare and the limited evidence available suggests they may be associated with environmental factors, such as low relative humidity or static electricity, and individual susceptibility.

Electromagnetic Radiation
The levels of ionising and non-ionising electromagnetic radiation which are likely to be generated by DSE are well below those set out in international recommendations for limiting risk to human health created by such emissions. No special protective measures are therefore needed to protect the health of people from this radiation.

4. DSE WORKSTATION ASSESSMENT

A DSE assessment is a suitable and sufficient analysis of DSE workstations to identify any associated health risks.

Management must coordinate the assessment process. This will involve identifying new and existing users for completing the self-assessment form (Appendix 1) which can be found on SharePoint.

The risks identified in self‑assessments must be reduced as low as is reasonably practicable by applying the incorporated guidance (Appendix 4). Assessments should be reviewed if there has been any significant changes to DSE activities, workstation and its environment or is suspected to be no longer valid. This includes major change in the computer software/ hardware, furniture; time spent using the DSE, increase in task requirement (such as speed and accuracy), relocation of the workstation, lighting, physical changes such as pregnancy and injury etc.

5. DAILY WORK ROUTINE

Managers should plan the activities of users so that daily work is periodically interrupted by breaks or activity changes. These could be informal breaks away from the screen for a short period each hour, where other (non DSE) work tasks could be undertaken.

In most tasks, natural breaks or pauses occur as a consequence of the natural organisation of work activities. Whenever possible, DSE work should consist of a mix of screen-based and non-screen-based work to prevent fatigue and vary visual and mental demands. Where the job unavoidably contains spells of DSE work (inputting, extracting and/or reading data), these should be broken up by periods of non-intensive, non-display screen work. Deliberate breaks or pauses must be introduced in DSE work if it is deemed difficult to apply natural pauses.

Where the display screen work involves intensive inputting, breaks should avoid demands of arms. Similarly, if the display screen work is visually demanding any activities during breaks should be of a different visual nature. Breaks must also allow users to vary their posture. Informal routines such as blinking, stretching and focusing eyes on distant objects, can help prevent the onset of health effects.

It is the type and mix of job demands that should determine the length of break necessary to prevent health effects. Here are some points when planning breaks:

(a)   Breaks should be taken before the onset of fatigue, not in order to recuperate and when performance is at a maximum, before productivity reduces. The timing of the break is more important than its length;

(b)   Breaks or changes of activity should be included in working time. They should reduce the workload at the screen without introducing higher intensity work;

(c)   Short, frequent breaks are more satisfactory than occasional, longer breaks, e.g. a 5-10 minute break after 50-60 minutes continuous screen and/or keyboard work is likely to be better than a 15 minute break every 2 hours;

(d)   If possible, breaks should be taken away from the screen;

(e)   Informal breaks (that is time spent not viewing the screen e.g. on other tasks), appear from study evidence to be more effective in relieving visual fatigue than formal rest breaks;

(f)   Wherever practicable, users should be allowed some discretion as to how they carry out tasks; individual control over the nature and pace of work allows optimal distribution of effort over the working day.

6. EYE AND EYESIGHT TESTS

The regulations give users or those about to become users the opportunity to have a DSE eye and eyesight test as soon as practicable after request and at intervals advised by their own optometrist.

There is no cost entailed with eye and eyesight test. This entitlement also applies when users experiences visual difficulties attributable to DSE work.

Special corrective appliances are to be funded by the employer for users where normal ones

cannot be used. 'Special' appliances will be those prescribed to meet inherent vision defects experienced when working DSE at focal distances - anti-glare screens are not special corrective appliances. The Board will contribute to the cost of corrective lenses.

(a)   Initial Eyesight Test

Employees, who qualify as DSE users, including those who already wear spectacles, should approach their line manager. Line management will issue them with a DSE EyeCare Certificate (appendix 2) to be taken to their optometrist. On conclusion of the Eye Test, their optometrist will inform the employee and the Board of the outcome of the examination.

The optometrist will dispense corrective lenses if they are deemed necessary for DSE activities and payment will be made by the DSE user who in turn, will be refunded up to £50 by Ayrshire Valuation Joint Board. Financial assistance will be granted on production of the DSE EyeCare Certificate and optometrist receipt (appendix 3).

NB Where an employee decides to enhance the basic corrective lenses any enhancement shall be at the employees' own expense and payable direct to the optometrist.

(b)   Repeat Eye Tests

Follow-up eye tests should be carried out on a 2-yearly basis, as specified by the optometrist or as requested by the employee if they are experiencing vision difficulties due to DSE operations.

NB The Board will contribute to the cost for lenses required specifically for DSE work. Employees acquiring lenses for other work activities are not entitled to financial assistance for DSE corrective lenses.

7.   TRAINING

The regulations require that all DSE users receive adequate training in the use of their allocated workstation(s), and refresher training when a workstation is substantially modified. The training may be based on following:

(a)   The user's role in correct and timely recognition of hazards and potential risks. This should cover both the absence of desirable features (e.g. chair comfort) and the presence of undesirable ones (e.g. screen reflections and glare) together with information on health risks and how problems may be manifested.

(b)   A simple explanation of the causes of risks and the ways in which associated harm can develop e.g. poor posture leading to static loading on the musculoskeletal system with eventual fatigue and pain.

(c)   User initiated actions and procedures which will bring risks under control and to acceptable levels. Training should cover the following:

- The desirability of comfortable posture and the importance of frequently changing position;

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- The use of adjustment mechanisms on DSE equipment, particularly furniture, so that health risks can be eliminated or minimized:

- The use and arrangement of workstation components to aid good posture, prevent over-reaching as well as avoiding glare and reflections on the screen;

- The need for regular inspection, maintenance and cleaning of screens and other equipment;

- The need to take advantage of breaks and changes of activity.

(d)   Organisational arrangements by which symptoms or problems with the workstation can be communicated to management.

(e)   Information on regulation application, particularly with regards to eyesight, rest pauses etc.

(f)   Any other training that may be relevant.

8.   DSE INFORMATION

Management will provide users with adequate information, this will include:

(a)   Potential risks from display screen equipment and workstations

(b)   DSE self-assessment process and measures to reduce identified risks.

(c)   Work activity breaks and changes.

(d)   Eye and eyesight test procedures.

(e)   Any other information that may be relevant.

Users should be provided with copy of the Health and Safety Executive leaflet: Working with Visual Display Units (VDU) http://www.hse.gov.uk/pubns/indg36.pdf.

The booklet is a useful guide for staff who work with DSE and: -

(a)   Provides questions that are most commonly asked about DSE with answers

(b)   Gives a brief summary of the regulations on work with display screen equipment (including DSE) and explains how they affect you.

(c)   Suggest some simple adjustments that can be made to your workstation and screen to make them more comfortable, and easy to use.

9.   FURTHER INFORMATION

Risk and Safety Team
Regulatory Services
South Ayrshire Council
Newton House
30 Green Street Lane
Ayr KA8 8BG
Tel: (0300) 123 0900

Occupational Health Service
South Ayrshire Council
12 Bath Place
Ayr KA7 1DP
Tel: 01292 (61) 2139

Health and Safety Executive (HSE)
Cornerstone
107 West Regent Street
GLASGOW
G2 2BA

Employment Medical Advisory Service (EMAS)
Cornerstone
107 West Regent Street
GLASGOW
G2 2BA

Office Health and Safety
http://www.hse.gov.uk/office/index.htm

10.   Relevant Legislation

Health and Safety (Display Screen Equipment) Regulations 1992
Health and Safety at Work, etc., Act 1974
Management of Health and Safety at Work Regulations 1999

Appendix 1   Display Screen Equipment (DSE) Workstation Self-Assessment Form

Workstation Location:	
User's Name & Directorate:	
Date of Assessment:	
Line Manager:	
Any Further Action Required:	
All Actions Completed on:	

RISK FACTORS	SELECT ANSWER		THINGS TO CONSIDER	COMMENTS / ACTION
1. DISPLAY SCREENS				
Are the characters clear and readable?	Yes	No	Make sure the screen is clean and cleaning materials are made available. Check that text and background colours work well together.	
Is the text size comfortable to read?	Yes	No	Software settings may need adjusting to change text size.	
Is the image stable, i.e. free of flicker and jitter?	Yes	No	Try using different screen colours to reduce flicker, e.g. darker background and lighter text. If problems still exist, get the set-up checked, e.g. by the equipment supplier.	
Is the screen's specification suitable for its intended use?	Yes	No	For example intensive graphic work or work requiring fine attention to small details may require large display screens.	
Are the brightness and/or contrast adjustable?	Yes	No	Separate adjustment controls are not essential, provided the user can read the screen easily at all times.	
Does the screen swivel and tilt?	Yes	No	Swivel and tilt need not be built in, you can add a swivel and tilt mechanism However, you may need to replace the screen if: • swivel/tilt is absent or unsatisfactory, • work is intensive and/or • the user has problems getting the screen to a comfortable position	
Is the screen free from glare and reflections?	Yes	No	Use a mirror placed in front of the screen to check where reflections are coming from. You might need to move the screen or even the desk and/or shield the screen from the source of reflections. Screens that use dark characters on a light background are less prone to glare and reflections	
Are adjustable window coverings provided and in adequate condition?	Yes	No	Check that blinds work. Blinds with vertical slats can be more suitable than horizontal ones. If these measures do not work, consider anti-glare screen filters as a last resort and seek specialist help.	
2. KEYBOARD				
Is the keyboard separate from the screen?	Yes	No	This is a requirement, unless the task makes it impracticable (e.g. where there is a need to use a portable).	
Does the keyboard tilt?	Yes	No	Tilt need not be built in.	

RISK FACTORS	SELECT ANSWER		THINGS TO CONSIDER	COMMENTS / ACTION
Is it possible to find a comfortable keying position?	Yes	No	Try pushing the display screen further back to create more room for the keyboard, hands and wrists. Users of thick, raised keyboards may need a wrist rest. Training can be used to prevent: • hands bent up at wrist; • hitting the keys too hard; • overstretching the fingers. Keyboards should be kept clean. If characters still can't be read the keyboard may need modifying or replacing. Use a keyboard with a matt finish to reduce glare and/or reflection.	
Does the user have good keyboard technique?	Yes	No		
Are the characters on the keys easily readable?	Yes	No		

3. MOUSE, TRACKBALL ETC.

RISK FACTORS	SELECT ANSWER		THINGS TO CONSIDER	COMMENTS / ACTION
Is the device suitable for the tasks it is used for?	Yes	No	If the user is having problems, try a different device. The mouse and trackball are general purpose devices suitable for many tasks, and available in a variety of shapes and sizes. Alternative devices such as touch screens may be better for some tasks (but can be worse for others).	
Is the device positioned close to the user?	Yes	No	Most devices are best placed as close as possible, e.g. right beside the keyboard. Training may be needed to: • prevent arm overreaching; • tell users not to leave their hand on the device when it is not being used; • encourage a relaxed arm and straight wrist.	
Is there support for the device user's wrist and forearm?	Yes	No	Support can be gained from, for example, the desk surface or arm of a chair. If not, a separate supporting device may help. The user should be able to find a comfortable working position with the device.	
Does the device work smoothly at a speed that suits the user?	Yes	No	See if cleaning is required (e.g. of mouse ball and rollers). Check the work surface is suitable. A mouse mat may be needed. Users may need training in how to adjust device settings.	
Can the user easily adjust software settings for speed and accuracy of pointer?	Yes	No		

4. SOFTWARE

RISK FACTORS	SELECT ANSWER		THINGS TO CONSIDER	COMMENTS / ACTION
Is the software suitable for the task?	Yes ☐	No ☐	Software should help the user carry out the task, minimise stress and be user-friendly. Check users have had appropriate training in using the software. Software should respond quickly and clearly to user input, with adequate feedback, such as clear help messages.	

5. FURNITURE

RISK FACTORS	SELECT ANSWER		THINGS TO CONSIDER	COMMENTS / ACTION
Is the work surface large enough for all the necessary equipment, papers etc?	Yes ☐	No ☐	Create more room by moving printers, reference materials etc elsewhere. If necessary, consider providing new power and telecoms sockets, so equipment can be moved. There should be some scope for flexible rearrangement.	

RISK FACTORS	SELECT ANSWER		THINGS TO CONSIDER	COMMENTS / ACTION
Can the user comfortably reach all the equipment and papers they need to use?	Yes	No	Rearrange equipment, papers etc to bring frequently used things within easy reach. A document holder may be needed, positioned to minimise uncomfortable head and eye movements.	
Are surfaces free from glare and reflection?	Yes	No	Consider mats or blotters to reduce reflections and glare.	
Is the chair suitable?	Yes	No	The chair may need repairing or replacing if the user is uncomfortable or cannot use the adjustment mechanisms.	
Is the chair stable?	Yes	No		
Does the chair have a working: • seat back height and tilt adjustment?	Yes	No		
• seat height adjustment?	Yes	No		
• swivel mechanism?	Yes	No		
• castors or glides?	Yes	No		
Is the chair adjusted correctly?	Yes	No	The user should be able to carry out their work sitting comfortably. Consider training the user in how to adopt suitable postures while working. The arms of chairs can stop the user getting close enough to use the equipment comfortably. Move any obstructions from under the desk.	
Is the small of the back supported by the chair's backrest?	Yes	No	The user should have a straight back, supported by the chair, with relaxed shoulders.	
Are forearms horizontal and eyes at roughly the same height as the top of the screen?	Yes	No	Adjust the chair height to get the user's arms in the right position then adjust the screen height, if necessary.	
Are feet flat on the floor, without too much pressure from the seat on the backs of the legs?	Yes	No	If not, a footrest may be needed.	
6. ENVIRONMENT				
Is there enough room to change position and vary movement?	Yes	No	Space is needed to move, stretch and fidget. Consider reorganising the office layout and check for obstructions. Cables should be tidy and not a trip or snag hazard.	
Is the lighting suitable, e.g. not too bright or too dim to work comfortably?	Yes	No	Users should be able to control light levels, e.g. by adjusting window blinds or light switches. Consider shading or repositioning light sources or providing local lighting, e.g. desk lamps (but make sure lights don't cause glare by reflecting off walls or other surfaces).	

RISK FACTORS	SELECT ANSWER		THINGS TO CONSIDER	COMMENTS / ACTION
Does the air feel comfortable?	Yes	No	Screens and other equipment may dry the air. Circulate fresh air if possible. Plants may help. Consider a humidifier if discomfort is severe.	
Are levels of heat comfortable?	Yes	No	Can heating be better controlled? More ventilation or air-conditioning may be required if there is a lot of electronic equipment in the room. Or, can users be moved away from the heat source?	
Are levels of noise comfortable?	Yes	No	Consider moving sources of noise, e.g. printers, away from the user. If not, consider soundproofing.	

7. FINAL QUESTIONS TO USERS

- Has the self-assessment covered all the problems that may be contributed with working DSE?
- Have you experienced any discomfort or other symptoms which can attribute to working with DSE?
- Do you know your entitlement to eye and eyesight testing?
- Do you take regular breaks / change of work activity away from DSE?
- Include any relevant diagrams, pictures, illustration, layouts etc. that you feel may assist in this assessment.

Write details of any additional relevant information below:

8. WHAT NEXT?

RISK FACTORS	SELECT ANSWER	THINGS TO CONSIDER	COMMENTS / ACTION
Users should give a copy of the completed DSE self-assessment form to their line management. Users must follow guidance to ensure workstation, work pattern and environment accommodates their working needs without risk to health. Notify line management who in turn will notify the Occupational Health Service if health effects develop.			

Appendix 2

DSE EYECARE CERTIFICATE

This Form must be completed by the DSE user and the Optometrist and returned to the employer. This Form is solely for DSE users.

A. To be completed by employee

Print Name:

Directorate / Service:

B. To be completed by Optometrist

Eye examination has been completed   Yes ☐   No ☐

A special prescription is required
specifically and solely for DSE use   Yes ☐   No ☐

Print Name of Optometrist:

Signature of Optometrist:

Date:

Recommended Retest Date:

Branch Stamp:

C. To be completed by South Ayrshire Council

Amount Claimed:

Manager's Signature:

Print Name:

Spectacles Receipt Attached: ☐

Please submit completed Form (with receipt attached) to Payroll to permit agreed allowance to be credited to wages

DSE Eyecare Certificate Form - Apr11.doc

Appendix 3　　　　**Protocols for DSE Eye Testing at South Ayrshire Council**

Management referral　　Occupational Health　　　Self referral
　　　　　　　　　　　　　Surveillance

Appointment arranged with own Optometrist

Completion of DSE EyeCare Certificate (Appendix 2)

No problems identified　　　　　　　　　　　　　　Problems identified
Management informed　　　　　　　　　　　　　　Management informed

Review in 2 Years

Copy of employee receipt and DSE EyeCare Certificate sent to management

Copy of completed EyeCare Certificate entered into employee's file

Receipt sent to Payroll Services for reimbursement up to £50

Appendix 4   DSE Workstation Setup

A circular diagram showing a person seated at a workstation with workstation setup guidance arranged around the outer ring:

- Keep your elbows tucked in at your sides
- Place the document holder next to the screen
- Set the top of the screen just below eye level*
- Swivel or tilt the screen to remove glare
- Keep your forearms and hands horizontal
- Don't bend your wrists by more than 15°
- Position the mouse very close to the edge of the keyboard
- Shift your keyboard back from the lip of your desk giving your hands space to rest
- Keep your thighs horizontal. Don't lean forward such that your weight is supported by your thighs
- Keep the space under your desk free of clutter
- Keep your feet flat on the floor; use a footrest if need be
- Adjust the chair height so that your elbows are at the same height as the keyboard
- Sit erect, or lean slightly back by about 5° letting the backrest support some of your weight
- Adjust the backrest to support the small of the back
- Maintain the curvature of the spine
- Sit back in the chair
- Keep your shoulders relaxed
- Keep your head up

60°