



**Science and
Technology
Facilities Council**

SAFE USE OF DISPLAY SCREEN EQUIPMENT

STFC Safety Code No 25

Rev. 1.8, Issued on July 2021

Revisions

1	Initial Launch	February 2009
1.1	Change to 4.3 & 4.6 to reflect new DSE glasses procedure	November 2012
1.2	Various changes to emphasis other types of fixed DSE in labs or workshops	January 2013
1.3	Amendments to audit checklist	May 2013
1.3.1	Minor amendment to training	November 2013
1.4	Document Retention Policy Added	August 2014
1.5	Removal of DSE Advisor role	August 2015
1.6	Minor update to reflect the launch of SHE Assure	October 2018
1.7	Minor update to Appendix 5	March 2021
1.8	Minor modification to para 4.2.6	July 2021

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Safe use of Display Screen Equipment

1. Purpose

The use of Display Screen Equipment (DSE), in particular personal computers (desktop, laptop, and tablet PCs, and smart phones/tablets), is now a common feature of most roles in the STFC. This code establishes consistent standards and controls to effectively manage the risks to health created by the use of DSE in offices, workshops or laboratories.

Failure to manage the hazards associated with long term DSE use can result in a wide range of injuries and ill health which can result in significant personal suffering, reduced operational efficiency, and a loss of time and money.

Common symptoms arising from poor consideration of DSE hazards include:

- musculoskeletal upper limb pain and discomfort (Work Related Upper Limb Disorders);
- backache;
- visual fatigue and headaches; and
- mental stress

The following legislation provides the regulatory framework for managing DSE and related workplace safety:

- Health and Safety (Display Screen Equipment) Regulations, 1992, amended by the 'Health and Safety (Miscellaneous Amendments) Regulations', 2002, (DSE Regulations);
- Provision and Use of Work Equipment Regulations, 1999; and
- Workplace (Health, Safety and Welfare) Regulations, 1992.

This code provides guidelines on the selection and use of DSE, the design of workstations, the planning and control of the work involving DSE, and the screening and investigation of DSE related incidents.

2. Scope

This code applies to all STFC employees, temporary workers, and tenants at STFC sites.

This code applies to the use of personal computers, desktop, laptop or notebook, and any other equipment containing display screens, for example in laboratory or workshop equipment.

This code applies also to DSE used by STFC staff while working at non-STFC sites, for example overseas laboratories such as CERN.

Where formal home working is agreed by line management this code applies also to the use of DSE by staff at home. This code does not cover DSE used at home by staff that are not formal home workers.

3. Definitions

3.1 Display Screen Equipment (DSE)

Any alphanumeric or graphic display screen, regardless of the display process involved, also known as Visual Display Units (VDUs).

3.2 DSE Workstation

An assembly used for working, including the immediate environment and lighting conditions, comprising some or all of the following:

- DSE: desktop PC, monitor, keyboard, laptop/tablet PC docking stations or any other input device;
- Optional accessories used with the DSE for example mice or other pointing devices; external disk drives; speakers; telephone; printer; document holder; and
- Work desk, chair and other items peripheral to the DSE.

3.3 DSE User

A person, employee, temporary worker, or tenant who regularly uses DSE as a significant part of their normal work - specifically, someone who uses DSE for continuous periods of 30 minutes or more on average more than three times per week.

3.4 Occupational Health teams

Occupational Health service provision is available to all STFC staff but may vary in the manner it is delivered depending on location, from full time on site provision through to contracted off site services made available to staff through local HR or staff support teams.

3.5 DSE Advisor

An individual trained to provide advice to DSE users in the assessment of DSE workstations.

4. Responsibilities

4.1 Line Managers and/or Supervisors shall:

- 4.1.1 Ensure that their DSE users are aware of the requirements of this SHE Code and consider DSE issues in designing roles, workstations and work schedules, see Appendices 1-4, and maintain general vigilance to the correct set up of DSE workstations for their staff and others working with them..
- 4.1.2 Ensure that staff know that they should take adequate breaks away from DSE work stations and equipment to exercise eyes and body as described in Appendix 4.
- 4.1.3 Ensure that their DSE Users undertake the training detailed in Appendix 5, and know who their local DSE Advisor(s) are. advisor
- 4.1.4 Ensure that DSE self assessments are undertaken by their DSE Users (permanent and temporary) when setting up a workstation or following any significant DSE changes. This requirement applies irrespective of whether the individual (s) involved normally work at an STFC site, non-STFC site, or from home, as appropriate seeking the advice of SHE Group or Occupational Health.

- 4.1.5 Ensure that control measures identified through DSE assessments undertaken by their DSE users are implemented as soon as is practicable.
- 4.1.6 Seek the approval of relevant site or local HR teams prior to formally allowing or requesting employees to carry out STFC work in their own home.

Managers of home workers must ensure that their home DSE workstations meet the requirements set out in Appendices 1-4, and that a documented DSE self assessment is carried out.

4.2 DSE Users shall:

- 4.2.1 Adhere to the requirements of this SHE code in setting up and adjusting their workstation or equipment including DSE.
- 4.2.2 Manage their work schedules to take breaks as appropriate to exercise their eyes and body.
- 4.2.3 Attend/undertake DSE training detailed in Appendix 5.
- 4.2.4 Carry out a DSE self assessment when commencing work at a new workstation or when significant changes occur to their workstation(s) [major changes to the DSE, furniture, room or layout], to the DSE User [injury, pregnancy] or the work undertaken, see Appendices 1-4. DSE assessments should be undertaken where users are permitted to work from home by their line management. Once completed, DSE self-assessments should be discussed with their line management and as appropriate SHE Group or Occupational Health and control measures identified in the assessment shall be implemented promptly.

The relevant STFC DSE pro forma and records are held on 'SHE Assure'. Where SHE Assure is not available electronic copies of the pro forma can be found on the STFC SHE website.

- 4.2.5 When using portable DSE, follow the guidance given in Appendix 2.
- 4.2.6 **Where self-assessments identify the need for an eye or eyesight test and/or spectacles for DSE use, users should print a copy of the 'eye examination form' and take it with them to their Optician who should complete the relevant section. The form can then be submitted via iExpenses in order to claim both the cost of the eyesight test and a contribution to the cost of glasses. (Note: The full cost of prescription safety glasses/goggles will be borne by the STFC).**
- 4.2.7 Report any DSE related health or safety issues to their supervisor or line manager, and as a SHE incident, following STFC SHE Code 5 Incident Reporting and Investigation.
- 4.2.8 Attend relevant DSE training and refresher training detailed in Appendix 5.

4.3 SHE Group shall:

- 4.3.1 Provide specialists DSE advice and assist in the interpretation of this code.

4.3.2 Organise and deliver DSE training in respect to this code.

4.4 Occupational Health shall:

4.4.1 Advise, and resolve where possible, health issues that have arisen from the use of DSE.

5 References

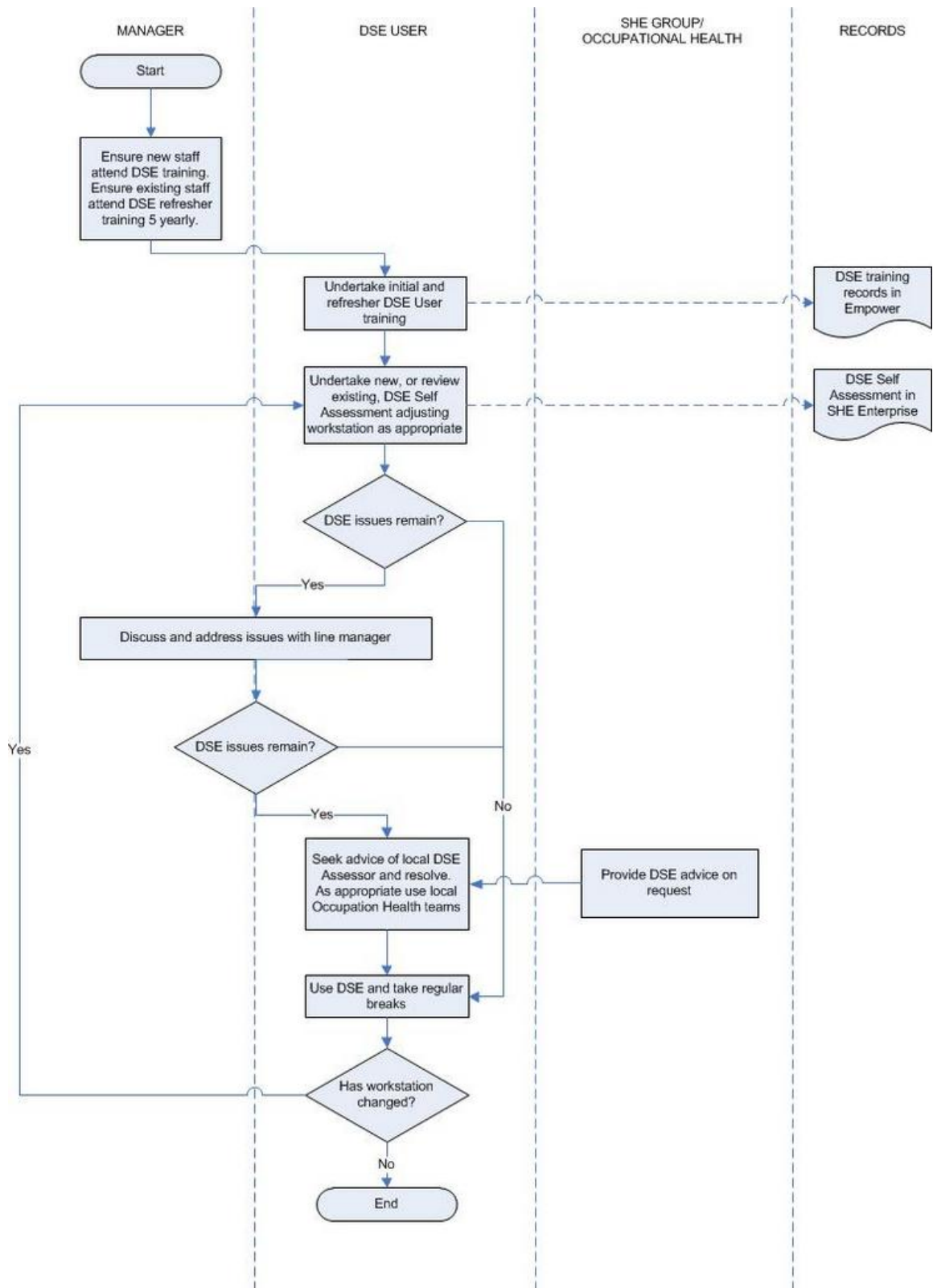
5.1 Work with DSE, The Health and Safety (DSE) Regulations 1992, as amended 2002, guidance on DSE regulations. L26. HMSO ISBN 0717625826

5.2 Working with VDUs IND (G) 36L HSE free leaflet.

5.3 BS EN ISO 9241 Ergonomic requirements for office work with visual display terminals (VDTs)

Appendix 1. DSE process flowchart, Guidance on setting up your workstation and DSE Self Assessment pro formas

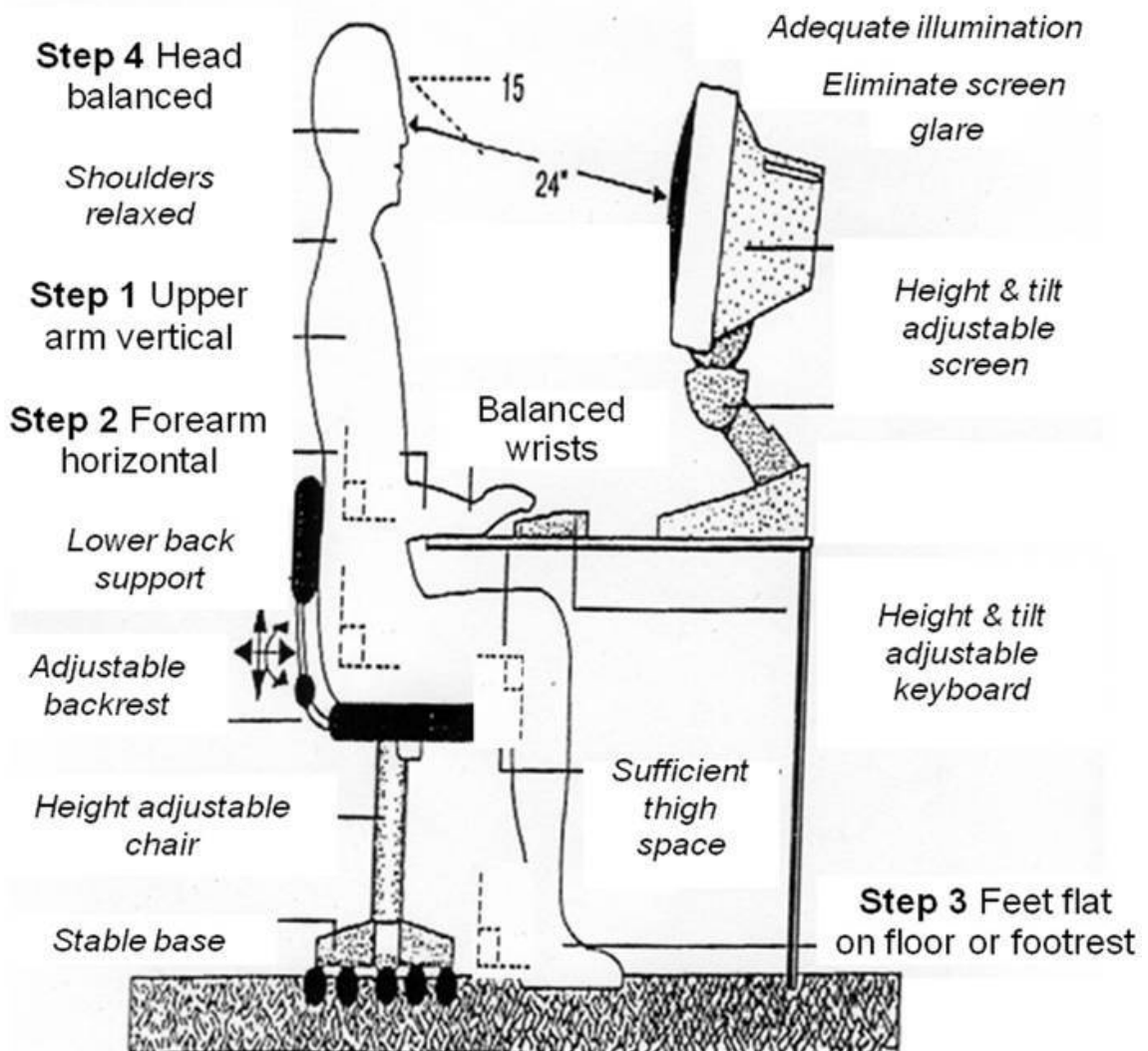
Summary DSE process flowchart





DSE User Guide

Are your monitor, chair, desk and set-up right for you?



Step by step guide to setting up your office workstation

1. Adjust your chair height so that when you put your fingers on the middle row of the keyboard your forearms and hands are horizontal, with your elbows vertically under your shoulders and no angle at the wrist. Adjust your chair to this height.
2. If the undersides of your thighs are now compressed you should use either a footrest or a lower desk. Desks are generally a standard height but adjustable examples are available.
3. Adjust the height of the monitor so that you are looking roughly horizontally if not slightly down at it. Your head and neck should be in balance, while your eyes look slightly down to the monitor. The top of the visible area should be at eye height, when sitting upright.
4. Adjust the angle of the backrest so that your back is supported. If the backs of your knees hook the front of the seat you need a chair with a shorter seat.
5. Adjust the backrest height so that it supports the lower back sitting upright. If the shape of the backrest does not fit the small of your back, you are strongly advised to install additional back support.
6. Move your chair forwards or backwards so that when typing your elbows are vertically under your shoulders. If you cannot get close to the desk because the chair armrests hit the edge of the desk adjust their height. Your chair should be stable, ideally with a five legged base and castors.
7. Fixed-height armrests are generally too low. Adjustable-height armrests are usually shorter and will let you get close enough to your desk while taking some of the weight of your arms off your shoulder and neck muscles.
8. Check the distance of the monitor. For most people to view the screen comfortably it should be about 22-26" (55 - 65 cm) away, so your eye focus muscles do not have to work too hard.
9. Check the side-to-side position of the monitor - it should be directly in front of you. Where dual screens are used they should be similarly positioned minimising twisting movement of the neck from side to side.
10. Sit close to the desk and don't put things between you and the keyboard except a gel wrist rest - your elbows need to be vertically under your shoulders.
11. Position and use the mouse as close to you as you can. Aim to have your elbow vertically under your shoulder, and right by your side or on the armrest.
12. If you often refer to documents whilst typing use a document holder. This should be positioned at the same height and distance as your monitor.
13. Eliminate glare or reflections on your monitor by closing blinds and changing the position of the workstation so that the monitor is at right-angles to light sources.
14. Position any additional equipment e.g. phones, paper trays, reference material in accessible places to avoid reaching and twisting.
15. The temperature and the humidity of the area/office should be adjusted where this is possible to suit individual comfort and need.
16. If you are experiencing any discomfort while working at your workstation, stop and seek advice from your local SHE Group or Occupational Health team.

Appendix 2. Portable DSE

In addition to desktops, DSE Regulations apply equally to portable DSE such as laptop/notebook computers, tablets and other hand-held devices.

The design of portable computing equipment, making it compact and easy to carry with a smaller keyboard, integral screen and mouse, may make prolonged use uncomfortable unless care is taken.

The use of portable DSE should where possible be avoided in preference to standard workstations with a desktop computer or portable PC/laptop/tablet in a docking station with external keyboard, screen and mouse.

By intent portable DSE is used in a wider range of environments some of which may be poorly suited to prolonged DSE work.

DSE users using laptop/notebook/tablet computers should endeavour to apply the same principles and practices employed in setting up conventional desktop PCs in permanent office locations when using portable DSE, see Appendix 1. By definition this will not be ideal and specific care should be employed when using portable DSE for extended periods of time, for example greater than 1 hour.

Practical points to consider when selecting a portable computer include:

- The computer's weight and the availability of a carrying case/rucksack;
- Its screen size - as large and clear as possible;
- Compatibility with a docking station, external mouse, monitor and keyboard when in use at the user's normal place of work;
- Effective friction pads underneath portable equipment to prevent sliding; and
- The presence of a wrist support between keyboard and front edge of the laptop.

Appendix 3. Pointing Devices

The most common DSE input devices other than the keyboard are a mouse, trackball, touch pad or touch screen - generally termed 'pointing devices'. While the mouse is often the most suitable pointing device others should be considered as appropriate.

Factors to consider when selecting a pointing device include:

- The environment in which it will be used, the availability of space and the surface on which it could be used;
- The individual characteristics / preferences of the user – physical limitations or conditions, capable of being used by left or right handed staff, its size and shape; and
- The characteristics of the work for example the speed and accuracy required.

When using a pointing device it is important to:

- locate the device such that the upper arm is relaxed at the side of the body. The arm may be supported on the chair arm or work surface when using the device;
- ensure that mouse mats have a smooth surface and are large enough for the task, without sharp or pronounced edges;
- ensure that the speed and sensitivity of the device is set up to suit the individual user;
- ensure that periods using a pointing device are interspersed with other activities; and
- let go of pointing devices when not using it to avoid prolonged static postures.

Increasingly pointing devices such as mice are being replaced by touch screens on tablets and laptops. In principle these provide an improved user computer interface as they encourage a wider range of musculoskeletal movements than using a mouse and avoid prolonged static postures.

Appendix 4. Work Routine of Users

STFC management will ensure that users are able to plan their activities at work so that their daily work using DSE is periodically interrupted by breaks or changes of activity.

Intensive DSE work can cause visual discomfort that may in turn lead to problems such as headaches and even mental stress.

Changes of Activity or Rest Breaks for Users

Breaking up long spells of DSE work helps prevent fatigue and may prevent work-related upper limb problems. Where possible, employers should include spells of other work, e.g. telephone calls, filing, photocopying, laboratory work etc. in the user's work activities.

If varying the type of work is not possible, STFC managers should plan for users to take breaks, away from the screen if possible, typically 5-10 minutes every hour.

Those responsible for organising user's work (in some cases this will be the individual themselves) should consider some of the following ways of reducing any health risks associated with the work:

- Varying the user's tasks to include other duties;
- Educating users to stretch and change position periodically;
- Taking breaks before DSE users become tired;
- Making sure users understand that short frequent breaks are better than longer, infrequent ones;
- Offering individual control over work patterns;
- Users should be discouraged from working intensely for too long; and
- Imposed rest breaks may sometimes be the only solution.

Appendix 5. Training

Role	Initial Training	Refresher Training	Frequency	Comments
DSE Users	DSE on-line training package in Totara.	DSE on-line training package in Totara.	5 years	Non-SO staff.
SO DSE Users	UKRI DSE Agile training.	UKRI DSE Agile training.	2 years	

Appendix 6. Audit Checklist

Ref	Item	Rating	Comments
1 (Section 4.2.4)	Have all DSE Users undertaken DSE self-assessments? (staff, temporary workers etc)		
2 (Section 4.3.4)	Are DSE self-assessments up to date, reflecting recent changes to workstations and their surrounding environment?		
3	Have DSE users undertaken on-line DSE training?		
4 (Section 4.3.4) (Section 4.3.6)	Have actions arising from DSE self-assessments been acted upon and implemented?		
5 (Section 4.2.6) (Appendices 1-4)	Have DSE assessments been completed for formal home worker's work stations?		
6 (Section 4.3.6)	Have eye and eyesight tests been provided where DSE Users have requested it?		

Appendix 7. Document Retention Policy

Record Established	Minimum Retention Period	Responsible Record Keeper	Location of Records	Comments/Justifications
DSE Assessments	Current + 5 Years	Staff	SHE Assure	SHE Group maintain SHE Assure facility