



Science and  
Technology  
Facilities Council

# **SAFE MANUAL HANDLING OPERATIONS**

STFC Safety Code No 12

Rev. 1.6, Issued October, 2018

## Revisions

1	Initial Launch	November 2007
1.1	Amendment to audit checklist	May 2013
1.2	References Section Added	August 2013
1.3	Document Retention Policy Added	August 2014
1.4	Changes to definition of significant	May 2015
1.5	Changes to reflect audit recommendations	August 2017
1.6	Minor changes to reflect the launch of SHE Assure	October 2018

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# SAFE MANUAL HANDLING OPERATIONS

## 1. Purpose

This code establishes STFC requirements to ensure that manual handling operations are carried out in a safe manner on STFC sites and by STFC staff.

Statutory requirements are set out in the Manual Handling Operations Regulations 1992 (as amended). The regulations require employers to avoid manual handling tasks which may give rise to injury and, where such manual handling cannot be avoided, to make an assessment and to take appropriate measures to remove or reduce the risk of injury.

More than a third of all over-three-day injuries reported each year to the Health and Safety Executive (HSE) are caused by manual handling and back injuries from manual handling are a major cause of occupational ill health in the UK.

## 2. Scope

This Code applies to all STFC employees, facility users, visitors and tenants undertaking manual handling operations on STFC sites and to all STFC staff working on Council business at non STFC sites.

This code does not apply in emergencies, or where actions intended to save life are being undertaken for example first aiders moving an injured person.

Contractors are responsible for assessing their own manual handling risks and as appropriate, documenting their significant manual handling assessments. Contract Superintending Officers should ensure that this is done.

## 3. Definitions

### 3.1. Manual Handling Operation or Task

Transporting or supporting a load by hand or bodily force, including the lifting, putting down, carrying, pushing or pulling, or moving a load.

### 3.2. Significant Manual Handling Hazards

Significant manual handling hazards are those in which there is a higher likelihood of injury occurring. Examples where this may be the case include: unusually shaped or unstable loads; excessive weights or awkward loads; cramped work areas resulting in bad posture e.g. stooping or twisting; or lifts requiring a load being held away from the body i.e. at arms length.

No absolute definition of significant can be provided, as it is closely dependent on the task, load, environment in which the task takes place and the individual(s) concerned. STFC has therefore defined two sets of trigger criteria to help managers when assessing tasks.

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For Lifting

**Significant lifting** is that which involves lifting an object:

- a) That has a mass of **5kg** or more; and
- b) Carrying it more than **5m**; and
- c) Doing this activity more than **5 times** a month.

A one-off task involving moving a load of 7kg a distance of 8m **would not be considered significant unless the line manager considered it so for other reasons** – environment, capability of person etc.

For Pushing or Pulling

**Significant pushing or pulling** is that which involves pushing or pulling a mobile object (one fitted with castors or wheels etc.):

- a) That has a mass of **50kg** or more; and
- b) Pushing/Pulling it more than **50m**; and
- c) Doing this activity more than **5 times** a month.

A one-off task that involves pushing or pulling an object with a mass of 70kg a distance of 80m **would not be considered significant unless the line manager considered it so for other reasons** – environment, capability of person etc.

### 3.3. Manual Handling Assessment

Information tailored to prompt consideration of the hazards specific to manual handling operations for inclusion in the general activity risk assessment is given in Appendix 3.

### 3.4. Manual handling weight limits

The Regulations do not establish absolute limits on the maximum weights that can be lifted but do provide guidelines; these are 25kg for men and 16kg for women, where the load is at waist height. At any position other than waist height these limits are reduced progressively to 10kg for men and 7kg for women, at head or ankle height - see Appendix 1.

Under **no** circumstances should an employee of the STFC, tenant, user or visitor exceed the upper limit of 25kg.

(for comparison a 50L bag of compost from a garden centre would weigh about 15kg; the maximum weight of airline carry-on luggage is 10kg; your car's spare wheel will weigh about 23kg)

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## 4. Responsibilities

### 4.1. Directors/Group Leaders shall:

- 4.1.1. ensure for all significant manual handling activities a general risk assessment is undertaken to address the manual handling hazards, (see Appendices 2 and 3), detailing current and required measures to minimise the risk of injury.
- 4.1.2. ensure that where general risk assessments identify manual handling hazards, identify specific actions to minimise the risk of manual handling injuries they are undertaken promptly and to plan.

### 4.2. Line Managers shall:

- 4.2.1. where practicable avoid the need for employees to undertake manual handling where there is a significant risk of injury by:
  - carrying out the task in a way that eliminates the need for lifting; or
  - employing experienced material handling personnel to undertake the task.
- 4.2.2. minimise the risk of injury where avoidance of manual handling is not practicable by:
  - ensuring a suitable and sufficient manual handling assessment is carried out as part of the general activity risk assessment. Where the risk of injury or ill health is significant this should be documented and recorded in Evotix Assure. The risk assessment should thereafter be reviewed in the light of changes to workplace procedures, activities or equipment, or changing legislation, and as a minimum reviewed every 2 years. See Appendices 2 and 3 and
  - taking steps to reduce the risk of injury by providing lifting aids, trolleys or pallet trucks etc. identified in the risk assessment. and
  - providing employees with general information and where reasonably practicable, precise information on the weight, centre of gravity, contents and other relevant information on specific loads. This information may be on the load itself or with accompanying documentation.

### 4.3. Employees, tenants, users, visitors shall:

- 4.3.1. use any equipment or systems provided to minimise the risk of injury arising from manual handling activities, where documented this will be stated in as part of the general activity risk assessment.
- 4.3.2. inform their employer/supervisor of any physical condition that may affect their capacity to carry out any manual-handling task.
- 4.3.3. report all injuries or near misses involving manual handling, see SHE Code 5 'Incident reporting and investigation', and seek Occupational Health/medical advice promptly, as early intervention in diagnosis and treatment of back injuries greatly improves the likelihood of a successful recovery.

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## 5. References

- **5.1** Manual Handling Operations Regulations 1992 (as amended)
- **5.2** INDG143, Getting to grips with manual handling. (HSE)
- **5.3** INDG383, Manual handling assessment charts. (HSE)
- **5.4** INDG478, Risk assessment of pushing and pulling (RAPP) tool (HSE)

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## Appendix 1 Good handling techniques for lifting

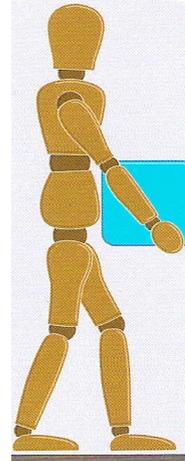
Think before lifting/handling. Plan the lift.

Can handling aids be used? Where is the load going to be placed? Will help be needed with the load? Remove obstructions such as discarded wrapping materials. For a long lift, consider resting the load midway on a table or bench to change grip.



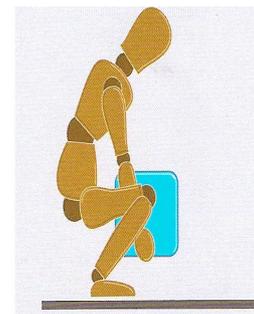
**Keep the load close to the waist.** Keep the load close to the body for as long as possible while lifting. Keep the heaviest side of the load next to the body. If a close approach to the load is not possible, try to slide it towards the body before attempting to lift it.

**Adopt a stable position.** The feet should be apart with one leg slightly forward to maintain balance (alongside the load, if it is on the ground). The worker should be prepared to move their feet during the lift to maintain their stability. Avoid tight clothing or unsuitable footwear, which may make this difficult.



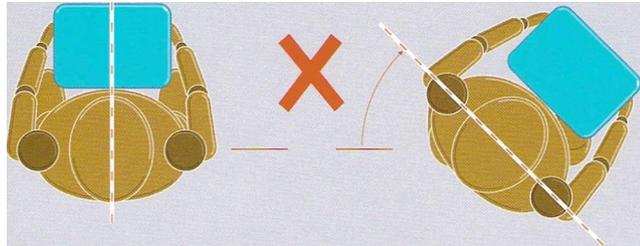
**Get a good hold.** Where possible the load should be hugged as close as possible to the body. This may be better than gripping it tightly with hands only.

Start in a good posture. At the start of the lift, slight bending of the back, hips and knees is preferable to fully flexing the back (stooping) or fully flexing the hips and knees (squatting).

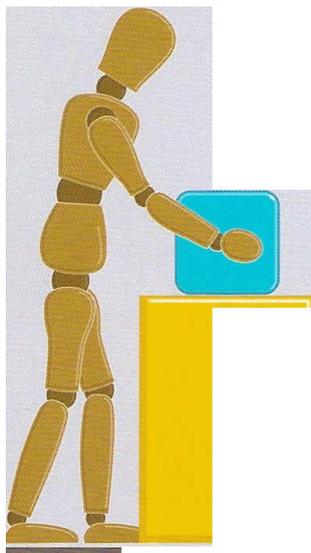
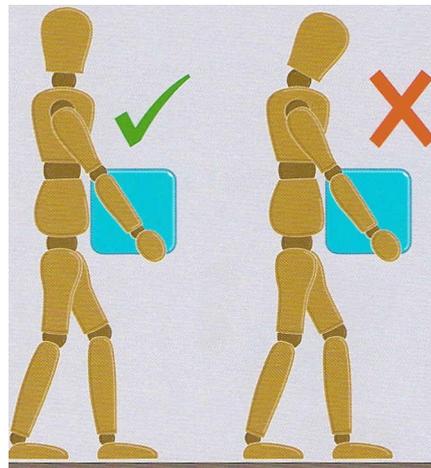


**Don't flex the back any further while lifting.** This can happen if the legs begin to straighten before starting to raise the load.

**Avoid twisting the back or leaning sideways,** especially while the back is bent. Shoulders should be kept level and facing in the same direction as the hips. Turning by moving the feet is better than twisting and lifting at the same time.



- Keep the head up when handling. Look ahead, not down at the load, once it has been held securely.
- Move smoothly. The load should not be jerked or snatched as this can make it harder to keep control and can increase the risk of injury.
- Don't lift or handle more than can be easily managed. There is a difference between what people can lift and what they can safely lift. If in doubt, seek advice or get help.



- **Put down, then adjust.** If precise positioning of the load is necessary, put it down first, then slide it into the desired position.

How do I know if there's a risk of injury?

It's a matter of judgement in each case, but there are certain things to look out for, such as people puffing and sweating, excessive fatigue, bad posture, cramped work

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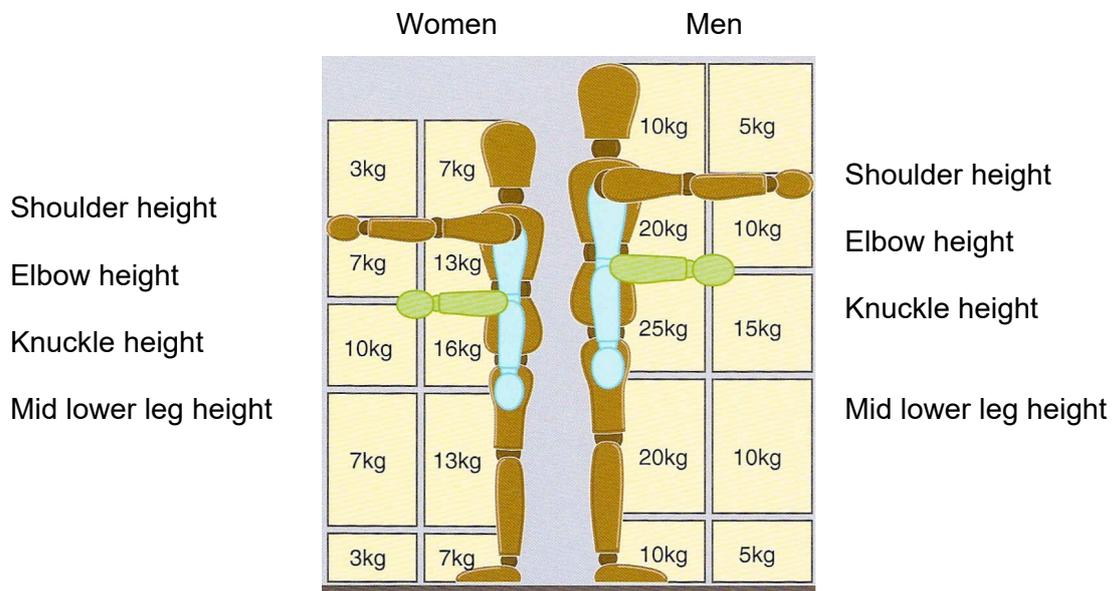
areas, awkward or heavy loads or a history of back trouble. Operators can often highlight which activities are unpopular, difficult or hard work.

Can you be more definite?

It is difficult to be precise - so many factors vary between jobs, workplaces and people. But the general risk assessment guidelines in the next section should help to identify when a more detailed risk assessment is necessary.

### General risk assessment guidelines

There is no such thing as a completely 'safe' manual handling operation. But working within the following guidelines will cut the risk and reduce the need for a more detailed assessment.



### Good handling tips for pushing and pulling

- Any handling device such as a barrow or trolley should have handles between waist and shoulder height;
- They should be well maintained (see SHE Code 4, Safety and safe use of work equipment);
- You should push where possible;
- You should be able to see the way ahead;
- Bear in mind that the larger the load, the more the effort that will be needed;
- If you have to navigate a slope, you may need help;
- Similarly if the surface is uneven or soft this will increase the amount of force needed to push, so again you may need assistance; and
- Finally maintain a steady pace so that the load does not 'run away' and can be stopped easily.

Further information can be found in Health and Safety Executive (HSE) guidance

INDG143 Manual handling at Work

INDG383 Manual handling assessment charts

INDG478, Risk assessment of pushing and pulling (RAPP) tool

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## **Appendix 2 Guidelines for undertaking an assessment of Manual Handling hazards as part of general risk assessments**

### **Recording and reviewing manual handling assessments**

Whenever manual handling of any kind is required, an assessment of the task should be carried out as part of the general activity risk assessment.

If the handling is at all difficult or unusual, or is to be repeated, a written assessment should be recorded and stored in Evotix Assure. To be suitable and sufficient, the assessment should include details of the training, information and personal protective equipment given to the employee and any appropriate medical details or history, as well as a record of the task in question. See Appendix 3 for guidance on the specific hazards relating to manual handling that should be considered.

Keep records and assessments up-to-date especially where the task changes and reviewing the assessments as general risk assessment every two years.

### **Training**

Information, guidance and training which is appropriate to the task and the individual must be given for all manual handling operations, Appendix 1 provides guidance on good manual handling techniques. Advice on the training course content and provision can be obtained from site/laboratory Health and Safety Groups, see Appendix 4.

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### Appendix 3 Hazards arising from Manual Handling and suggested controls

Hazards	Possible ways of controlling risk
<p>Does the task involve:</p> <ul style="list-style-type: none"> <li>• Holding loads away from the body?</li> <li>• twisting, stooping or reaching upwards?</li> <li>• large vertical movement?</li> <li>• strenuous pushing or pulling?</li> <li>• Repetitive handling?</li> <li>• insufficient rest or recovery time?</li> <li>• A work rate imposed by the process?</li> </ul>	<ul style="list-style-type: none"> <li>• Use a lifting aid</li> <li>• Allow the work to be carried out in a way which avoids periods of static posture</li> <li>• Modify the workplace layout to avoid twisting, stooping etc.</li> </ul>
<p>Is the load:</p> <ul style="list-style-type: none"> <li>• Heavy or bulky?</li> <li>• Difficult to grasp</li> <li>• unstable or likely to move unpredictably?</li> <li>• Harmful, e.g. sharp or hot?</li> <li>• Awkwardly stacked?</li> <li>• Too large to see over?</li> </ul>	<ul style="list-style-type: none"> <li>• Can the load be broken down into more manageable sections</li> <li>• Can the load be provided with suitable handles or lifting points</li> </ul>
<p>Is the work environment:</p> <ul style="list-style-type: none"> <li>• Restricting on posture</li> <li>• bumpy, obstructed or have slippery floors?</li> <li>• Variations in floor levels?</li> <li>• Hot/cold/humid environments?</li> <li>• Is the lighting poor?</li> <li>• Does the PPE restrict movement?</li> </ul>	<ul style="list-style-type: none"> <li>• Check the route for obstructions and remove</li> <li>• Choose a route which avoid steps or steep ramps</li> <li>• Get the lighting upgraded</li> <li>• Provide more suitable PPE</li> </ul>
<p>Does the task:</p> <ul style="list-style-type: none"> <li>• Require physical capacity above the capacity of the worker?</li> <li>• Call for specialist information or training?</li> </ul>	<ul style="list-style-type: none"> <li>• Provide suitable instruction and training</li> <li>• Break the task down into manageable chunks</li> </ul>
<p>If handling equipment is provided:</p> <ul style="list-style-type: none"> <li>• Is it suitable for the task?</li> <li>• Has it been maintained?</li> </ul>	<ul style="list-style-type: none"> <li>• Check maintenance (e.g. lifting equipment checks)</li> </ul>

## Appendix 4 Training requirements

Role	Initial Training	Refresher	Frequency	Comments
All Staff	Where they spend on average greater than 2 days/week over a 3 month period at an STFC site, undertake the mandatory Safe Manual Handling training provided by that site, see STFC SHE Code 10, Provision of SHE training, Appendix 1.			
Contractors	N/A	N/A	N/A	Contractors must provide the STFC with risk assessment and method statements relating to work carried out which may necessitate the need for a manual handling assessment.

## Appendix 5 Audit checklist

Ref.	Item	Rating	Comments
1 (Section 4.2.3)	Have line managers documented risk assessments that address manual handling hazards for all significant activities with the potential for injury, or harm to health?		
2 (Section 4.2.3)	Are general risk assessments of manual handling recorded in Evotix Assure?		
3 (Section 4.1.3)	Have remedial actions arising from risk assessments of manual handling hazards been implemented to plan?		
4 (Appendix 4)	Have all managers and staff attended manual handling training and, as appropriate, refresher training?		
5 (Section 4.2.3)	Have all risk assessments of manual handling hazards been reviewed at least on a 2 yearly basis?		

**Appendix 6 Document Retention Policy**

Records Established	Minimum Retention Period	Responsible Record Keeper	Location of Records	Comments/Justifications
Risk Assessments	Current + 5 years	Line Management	Evoix Assure	SHE Group maintain Evoix Assure facility