Physical Safety

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Manual Handling Risk Assessment Form and Guidance Notes

Occupational Health & Safety Service
HSD069P (rev 1)

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Manual Handling Risk Assessment Form

The risk assessment process for manual handling focuses on four specific areas; *The Task, The Load, The Work Environment and The Individual Capability.*

SUMMARY OF MANUAL HANDLING TASK:	LOAD BEING HANDLED:
LOCATION(S):	PERSONNEL INVOLVED:
NAME OF ASSESSOR:	DATE OF ASSESSMENT:
SIGNATURE:	REVIEW DATE:

If the answer to any question below is '**YES**' this may represent a potential risk to the individual(s) carrying out the task, see the attached guidance notes for further information on completing the risk assessment. If the risk assessment has identified a significant risk of injury you should determine if there are any existing controls in place to eliminate or minimise those risks and assess the adequacy of these controls. Where there are no controls, or where existing controls are inadequate, you must identify appropriate remedial actions to reduce or eliminate those risks. Record the remedial actions on the list below and prioritise these actions, with expected completion dates in Section 5.

1.	**THE TASK – DOES IT INVOLVE:**	**NO**	**YES**	**REMEDIAL ACTION:**
a.	Holding the load away from the body / trunk? (see Fig1, Guidance Notes below)			
b.	Twisting the body / trunk?			
c.	Bending / stooping forward?			
d.	Reaching sideways?			
e.	Reaching upwards?			
f.	Large vertical movements?			
g.	Lifting above shoulder height?			
h.	Lifting below the knees?			
i.	Change in posture / position?			
j.	Long carrying distances?			
k.	Strenuous pushing or pulling			
l.	Frequent lifting and / or lowering?			
m.	Repetitive handling during task?			
n.	Insufficient rest or recovery?			
2.	**THE LOAD – IS IT:**	**NO**	**YES**	**REMEDIAL ACTION:**
a.	Heavy? (see Fig1, Guidance Notes below)			
b.	Awkward in shape?			
c.	Large / bulky?			
d.	Difficult to grasp?			
e.	Unstable / unpredictable (e.g. contents likely to shift during movement)?			
f.	Fragile, damaged or leaking?			
g.	Intrinsically harmful (sharp / hot / cold / toxic)?			
h.	Obstructs vision?			
i.	Unsymmetrical, having one end / corner heavier than the other?			

3.	THE WORKING ENVIRONMENT - ARE THERE:	NO	YES	REMEDIAL ACTION:
a.	Constraints on posture and / or limited space in which to move the load?			
b.	Stairs, ramps or changes in floor level?			
c.	Obstructions / clutter?			
d.	Poor / uneven / slippery floors?			
e.	Hot / cold / humid conditions?			
f.	Strong air movements?			
g.	Poor lighting conditions?			
h.	Manual handling operations at height?			
4.	**INDIVIDUAL CAPABILITY - DOES THE ACTIVITY:**	**NO**	**YES**	**REMEDIAL ACTION**
a.	Require unusual capability e.g. strength / height? (see Fig1, Guidance Notes below)			
b.	Create a hazard to those with a relevant health problem?			
c.	Create a hazard to those who are pregnant?			
d.	Call for special training / information etc.?			
e.	Require Personal Protective Equipment for carrying out the task that is not currently in use? Taking into account that it should not unduly hinder movement or posture.			

Prioritise the remedial actions taking into account synergistic effects e.g. if the task involves both twisting and bending forward at the same time, the combined risk would be greater than the sum of the individual risks and would therefore need to be prioritised. Similarly, if the load was large, heavy and difficult to grasp or if a ramp was wet and slippery, remedial actions would normally expected to be given a high priority.

5.	REMEDIAL ACTIONS REQUIRED TO REDUCE THE RISKS? [IN ORDER OF PRIORITY]	RISK L / M / H*	Date Completed	Signature
1.				
2.				
3.				
4.				
5.				

* **L** = Low – rectify in 3 months; **M** = Medium – rectify in 1 month; **H** = High – rectify in 1 week max

6.	NAME(S) OF PERSON CARRYING OUT THE TASK: (where appropriate identify manual handling teams)	SIGNATURE OF PERSON CARRYING OUT THE TASKS
1.		
2.		
3.		
4.		

For further guidance see leaflet HSD149P on the Safety Office website and the HSE's INDG143 'Getting to Grips with Manual Handling' – A short guide at: http://www.hse.gov.uk/pubns/indg143.pdf

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Manual Handling Risk Assessment Guidance Notes

The responsibility for undertaking the assessment lies with the Supervisor, Line Manager or other competent person. The assessment would normally be carried out whilst observing on-going manual handling tasks as this allows the task to be assessed exactly as it is performed. However, a preliminary risk assessment could be done before the task is carried out, for instance in the case of planning a work layout or for an unusual 'one-off' procedure that justifies a written risk assessment i.e. moving a piece(s) of equipment or furniture.

THE HSE LIFTING AND LOWERING WEIGHT GUIDE:

The guide below can be used when assessing the suitability of a load for lifting or lowering by an average healthy individual. Some individuals may only be capable of lifting/lowering smaller loads, whilst others may be capable of lifting/lowering larger loads, but only if they are comfortable doing so. Assessing an individual's physical capability for lifting or lowering is potentially a very difficult process and should not be done in isolation. An individual's physical capability may also change with time or circumstances. In certain cases it could even require input from the Occupational Health Service i.e. if there are **relevant** health concerns which might affect that capability and require additional support.

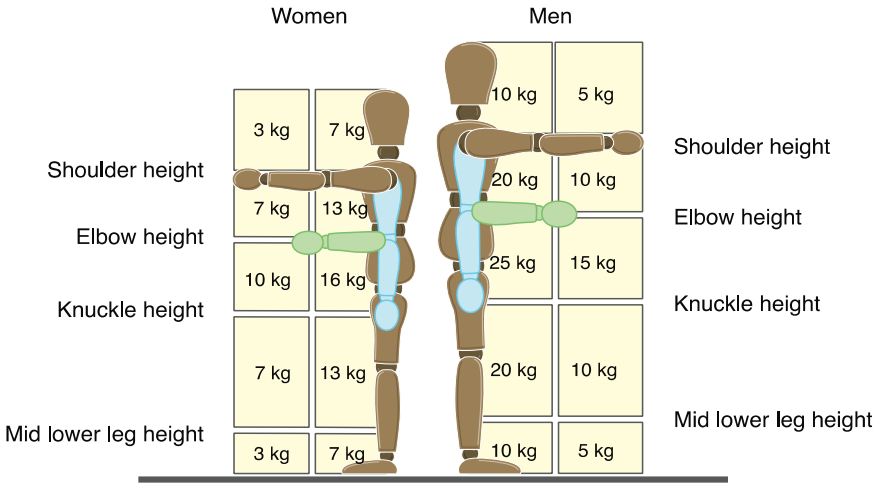

Figure 1: Average Lifting Capabilities of an 'Average' Healthy Individual.

Each box in the diagram above contains a ***'guideline acceptable weight'*** for straightforward lifting and lowering in that zone by an average healthy individual using the correct lifting technique (see HSD149P). Using the diagram enables the assessor to take into account the vertical and horizontal position of the hands as they move the load, the height of the individual handler and the reach of the individual handler. As can be seen from the diagram, the guideline weights are reduced if handling is done with arms extended, or at high or low levels. If the lifter's hands enter more than one box during the task, then the smallest weight figure applies. An intermediate weight can be chosen if the hands are close to a boundary between boxes. These figures assume that the load is easy to grasp with both hands, that the handler is physically fit, is standing in a stable position facing the load and the task is taking place in reasonable working conditions; if any of these is untrue the guideline weights should be reduced appropriately. They should also be reduced if multiple tasks are carried out in rapid succession. For further information see HSE guidance documents L23 and INDG143 at: http://www.hse.gov.uk/msd/manualhandling.htm.

Identifying Remedial Actions:

To aid with the identification of remedial actions some examples are listed below for each area of assessment. When identifying remedial actions it may be that a single remedial action or simple combination of remedial actions could reduce or eliminate multiple risks identified in the assessment. This finding needs to be clearly identified and recorded. For example the provision of a suitable lifting device and a trolley **could potentially** be a remedial action for almost all the 'Task' risk factors.

RISK ASSESSMENT GUIDANCE NOTES:

The activities listed on the risk assessment form could cause accidents and/or increase the stress on the handlers back and/or shoulders which could result in an immediate acute injury, a long term chronic injury or fatigue, which could then also cause accidents as well as injury. Therefore wherever possible foreseeable 'significant' risks from these activities should be eliminated or minimised by the selection of appropriate remedial actions. In combination with the risk assessment and Fig. 1 above, the notes below will help to identify the remedial actions that may need to be taken.

1. THE TASK - potential remedial actions include

A crucial first question should always be: "Is the task really necessary?" Assuming that it is …

- Could the risk be removed by having load delivered directly to the point of use?
- Could having the load delivered closer to the point of use reduce the carrying distance?
- Could the point of use be moved closer to reduce the carrying distance?
- Does the load actually need to be stored on a high shelf or in an awkward location?
- Could the task be carried out over an extended time period to reduce stress on the body?
- Could the task be broken up with frequent breaks or periods of less strenuous activities?
- Could the ergonomics/layout of the working area be changed to minimise high-risk activities?
- Could careful thought and planning of the route avoid high-risk areas and high-risk activities such as twisting or bending/stooping/leaning?
- Could careful thought and planning avoid the need for repetitive actions?
- Could alterations to the position/orientation of the load and/or the orientation of the operator before lifting/lowering remove or reduce the need to twist, bend, or stoop?
- Could alterations to the layout of the destination remove the need to twist, bend, or stoop?
- If doors need to be opened,
    - can this be done before lifting is started or
    - is there someone to help by opening doors or
    - are suitable mechanical devices available to temporarily hold doors back?
- Does the manual handling task require a team of handlers? If so who are they and who is designated to manage/be in charge of the lift?
- Is a suitable mechanical lifting device required, such as a hoist, hydraulic lift, scissor lift fork lift truck* etc. and if so which?
- Is a suitable handling aid required, such as sack barrow, 'dolly truck', trolley (if so what type), stair climber, pallet truck or fork lift truck* etc?
- Could the task be designed to '*push*' rather than '*pull*' items and/or handling aids to reduce the stress on the body?

2. THE LOAD: potential remedial actions include

- Could the load be split to make it,
    - lighter
    - smaller and/or less bulky
    - less awkward
    - easier to grasp
    - more stable
    - more predicable
    - less likely to obstruct vision
    - **BUT** potentially requiring more repetitive actions! – A balance should be struck.
- Could the load be repackaged to make it,
    - easier to grasp
    - more stable
    - more predicable
    - less likely to obstruct vision
    - less likely to be damaged if fragile.
    - less harmful; the handler should always check for 'leaks' or 'sharps' before lifting
- If the load is hot or cold could it be
    - left to cool or warm to an acceptable temperature?
    - insulated?
    - handled with insulating gloves?
    - handled with appropriate lifting aids?
    - transported on a trolley etc..

- Is a suitable mechanical lifting device required, such as a hoist, hydraulic lift, scissor lift, fork lift truck* etc. and if so which and is training required?
- Is a suitable handling aid required, such as sack barrow, 'dolly truck', trolley (if so what type), stair climber, pallet truck or fork lift truck* etc?
- Is appropriate Personal Protective Equipment (PPE) required such as safety shoes and gloves with a good grip etc?

3. THE WORKING ENVIRONMENT

- Could the work layout be modified to allow more space in which to carry out lifting and lowering thereby avoiding constraints on posture?
- Could the work location be moved to allow more space in which to carry out lifting and lowering thereby avoiding constraints on posture?
- If the task involves the use of stairs, ramps or changes in floor level these are all likely to increase the stress on the body and increase the likelihood of injury through slips trips or falls. Wherever possible avoid the use of stairs or ramps whilst manual handling, if possible use lifts and if this involves longer carrying distances then employ trolleys or similar devices that you know will fit in the lift!
- When planning a manual handling task either plan to use an uncluttered/unobstructed route or remove the clutter/obstructions before commencing.
- If the floor is in a poor state of repair, is uneven or slippery the manual handling task should be re-routed wherever possible and/or appropriate remedial action taken, such as the use of trolleys which may need large pneumatic tyres. The use of slip resistant foot ware may be required. If the task is repetitive and prolonged the obvious remedial action is have the sub-standard flooring repaired or replaced.
- Working in hot, cold or humid conditions can introduce additional hazards when performing manual handling tasks, some of which are similar to other hazards already addressed and others such as fatigue induced by the environment are not. Remedial actions may be limited by the need to work in the particular environment, but could include
    - manual handling aids
    - low work rates and frequent rest periods where applicable.
    - appropriate clothing and PPE including gloves and foot ware
- Strong air movements such as high winds can cause problems with large unwieldy loads such as large flat items or sheets of construction materials etc. Remedial actions can include, not performing the task in conditions of high wind, teamwork and the use of mechanical handling devices.
- Poor lighting conditions can cause mistakes in identification of other hazards listed above and accidents. Remedial action would obviously be improving the lighting conditions or avoidance of poorly lit areas.
- All manual handling operations become more hazardous when working at height, whether on ladders, scaffolds or roofs etc. Remedial actions include **avoiding the use of ladders**, **not performing the task in conditions of high wind**, teamwork and the use of mechanical handling devices including hoists, winches and cranes etc. **Because of the potentially elevated risk, a further more detailed more specific risk assessment would be required.**

4. INDIVIDUAL CAPABILITY

- A particular manual handling task may require unusual capabilities such as strength or height for a single person to perform it unassisted. Remedial actions could include reassigning the task to a more suitable individual, providing additional mechanical lifting aids or reconfiguring the lift as a team task.
- If the task represents a health hazard to an individual **something must be done immediately to remove this hazard or remove the individual from the hazard**. The remedial actions could include reassigning the task to a more suitable individual, providing additional mechanical lifting aids or reconfiguring the lift as a team task.
- Similarly if the task represents a health hazard to those who are pregnant **something must be done immediately to remove this hazard or remove the individual from the hazard**. The remedial actions could include reassigning the task to a more suitable individual or providing suitable additional mechanical lifting aids.
- Most regular manual handling tasks would require training, however some tasks may require additional training, including in the use of personal protective equipment and mechanical lifting devices*.

- Many of the remedial actions identified above may require personal protective equipment (PPE) for any potential handler, however certain individuals may require additional PPE. All PPE should be suitable and sufficient, being selected specifically for the manual handling task being assessed. The assessor should avoid over prescription of PPE, which could make manual handling tasks more hazardous.

5. REMEDIAL ACTIONS

Remedial actions should be prioritised, taking into account that an individual remedial measure or simple combination of remedial measures could reduce or eliminate multiple risks identified in the assessment. Each remedial action should be assigned a priority based on the severity of the individual risk or combined risk taking into account the realistic timescale to put the necessary action into effect. Where there is a high risk of injury, a high priority, short term remedial action could be followed by a longer-term remedial action. For example: splitting loads and using multiple movements in the short term (which in itself could introduce additional issues), to be followed in the long term by the provision of lifting equipment, a trolley and a reorganisation of the workplace if appropriate.

The completion of the remedial actions should be recorded on the form and the manual handling task reassessed after the introduction of the remedial control measures to confirm that the risks have been suitably addressed and reduced to the lowest level reasonably practicable.

6. SIGN-OFF

The assessment must be authenticated by the assessor, who must sign and date the document in the box provided on Page 1.

All individuals carrying out the manual handling task must read the risk assessment and must sign the assessment in the box provided on Page 2 to signify that they have done so. Where necessary, annotate the list to indicate members of a lifting team.

Remember, the assessment is not an end in itself, merely a structured way of analysing and pointing the way to practical solutions for reducing the risk of injury. Consequently, it should be regularly reviewed and the review date should be noted on Page 1.

***** Fork lift truck operators require specialist training, regular refresher training & adequate supervision.

There should be a specific risk assessment for operations requiring the use of a forklift truck.

For further information see http://www.hse.gov.uk/workplacetransport/personnel/lifttrucks.htm and the HSE's Rider-Operated Lift Trucks: Operator Training ACoP and Guidance (L117).

For further guidance on Manual handling see the leaflet HSD149P on the Safety Office website at (http://www.safety.admin.cam.ac.uk/publications/hsd149p-manual-handling) and

The HSE's guidance INDG143 'Getting to Grips with Manual Handling – A short guide' on the HSE website at http://www.hse.gov.uk/pubns/indg143.pdf

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