Answers to revision questions for NGC2 element 3

Answer 1 The Manual Handling Operations Regulations 1992

Answer 2 A manual handling assessment must take into account all of the following (but not necessarily in the order shown here):

T task
I individual
L load
E environment

If you are not able to illuminate each of these with a couple of examples, refer back to the study material.

Answer 3 Responsibility for conducting a manual handling assessment: the answer to this question is the same general answer we always give when we consider who is able to undertake a particular risk assessment in a particular workplace, namely the person(s) who separately or together have a thorough knowledge of the work activities in question. If no such person(s) are available, then serious questions must be raised concerning both the working practices and the training staff have received. Exceptions to this requirement that in-house staff should be able to undertake the necessary risk assessments will arise with specialised equipment such as steam boilers and certain lifting equipment where outside expertise (perhaps provided by insurance companies) may be needed. In the NGC2/3 study material we outlined the specific in-house expertise that might be called upon in a manual handling assessment.

Answer 4 Causes of manual handling accidents and injuries:

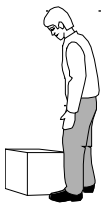
- slips, trips and falls
- poor lifting techniques
- loads which are too heavy for the individual concerned
- loads with sharp corners
- deceptive loads: either because they are unexpectedly heavy or because the centre of gravity is not as anticipated
- poor posture
- repeated handling and manipulation of loads which might be acceptable as a ‘one-off’.

Common injuries include:

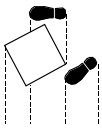
- strains and muscle injuries involving the spine
- strains and muscle injuries involving other parts of the body
- scratches, bruising and grazes (mostly to the upper body)
- fractures, either as a result of falls or dropping heavy objects onto the body

Other common manual handling questions ask the candidate to list groups of workers who are particularly at risk when it comes to manual handling injuries. A good answer will supply, perhaps, four or five at-risk groups together with a brief outline of work they undertake and the injuries likely to be encountered.

Answer 5 Good manual handling ...



stop and think

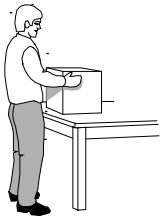


position the feet

get a firm grip, don't jerk

adopt a good posture, don't jerk

keep close to the load, don't twist the trunk, use the feet to move and change direction



put down, then adjust

Answer 6 Additional manual handling techniques include:

- using a midway stage which may, for example, be valuable when an object has to be lifted from the floor to a high shelf
- making use of the strong leg muscles to push an object into (storage) position
- team handling - using two people in certain manual handling operations
- ensuring that workers are aware of the most efficient ways of manoeuvring equipment such as trolleys
- avoiding unnecessary stretching
- use of 'kinetic handling' techniques

Answer 7 The requirements of the Regulations:

- avoid hazardous manual handling operations, so far as is reasonably practicable
- assess any hazardous manual handling operations that cannot be avoided
- reduce the risk of injury, so far as is reasonably practicable

Answer 8 Avoiding the need for a particular operation ...

Elimination of handling

- are certain handling operations necessary?
- can the same results be achieved another way?
- can a process such as machining or wrapping be carried out in situ, without handling the load?

Automation or mechanisation, if the load handling operations cannot be avoided entirely:

- can the operation be mechanised - for example, the use of roller conveyors
- is automation a possibility?

Answer 9 Handling machinery hazards, some examples:

- *entanglement:* rollers on conveyor systems, drum and cable lifting devices
- *friction and abrasion:* any handling system involving belts (very tough, very abrasive) for the movement of grain, coal, sand; simple building site rope and pulley systems
- *cutting:* hard to think of a specific handling cutting example, apart from the side edge of a travelling conveyor belt, although obviously many of the other categories included here might also involve cutting
- *shear:* lift moving across the opening in a lift shaft; any lifting equipment that makes use of scissor-action

... continued ...

- *stabbing and puncture:* any fast moving handling equipment might, either on its own, or through the articles being carried cause this type of injury
- *impact:* clearly just about any moving handling equipment could cause an impact injury (‘traffic hazards, NGC2/1 and 2); we should also mention the impact effects of equipment such as fork-lft trucks hitting storage racking, brick walls and so on - the damage that can be caused by even a very slow moving vehicle can be quite remarkable: buckling and toppling storage racks and so on
- *crushing:* device such as an inspection platform pushes the worker on the platform into the ceiling, ventilation ducting etc
- *drawing in:* roller and screw conveyor systems for moving bulk materials

Answer 10 Other hazards associated with handling equipment

- electrical hazards from the powerful batteries used in milk floats, hand-operated trucks etc
- falls from height
- toppling over of lifting equipment (you should be able to suggest a few possible causes)
- electrostatic effects leading to fire and explosion hazards (think conveyor systems with the build-up of dust, frictional generation of electrostatic charges etc)

Answer 11 LOLER, underlying principles

PUWER 98 and LOLER apply to all work equipment and bring together a spectrum of legislation which was previously spread across many different Regulations. PUWER 98 and LOLER provide a legal basis for the safe use and effective maintenance of equipment in what are often complex working situations involving sub-contractors, plant hire and so on.

Answer 12 LOLER, specific requirements

Our NGC2/3 study material provides details of the most important regulations in LOLER; the minimum you should carry with you into the examination is something like:

- LOLER - what type of equipment is covered
- LOLER - boundaries of responsibilities in complex situations involving plant hire, contractors, statutory test of certain equipment
- LOLER / PUWER - how suitable is the equipment for the task in hand:
  - » think of the operator, how (s)he reaches the controls, the conditions in which (s)he will work etc etc
  - » think of the location of the equipment, the hazards that might be encountered
  - » think of climatic conditions, the consistency and strength of the surface on which the equipment operates, slopes along which equipment might have to travel
- LOLER - lifting persons
  - » think of what is needed to protect the worker, think of the hazards from which they must be protected
- LOLER - positioning and fencing of equipment
- LOLER - marking of equipment, SWL

... continued ...

- LOLER - operation of equipment
  - » think who is in charge, how loads are attached, supervision, signposting
- LOLER - examination and testing of equipment, reporting defects
  - » think of required competencies of those undertaking the testing, timescale for inspections (before every shift, weekly), timescales for thorough examinations, statutory examination

Yes there is a lot to remember, but as we have repeatedly said, for any set of Regulations, the requirements will inevitably reflect the name of the Regulations.