

# SUPPLEMENT



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## NEBOSH CERTIFICATE – UNIT NGC2

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## INTRODUCTION

This Supplement has been prepared to provide you with updating material relating to your National General Certificate Unit NGC2 course. You should read it in conjunction with your existing study materials.

## ELEMENT 5: FIRE HAZARDS AND CONTROL: FIRE RISK ASSESSMENT

In the main section headed **FIRE RISK ASSESSMENT**, replace the text under the heading **Regulatory Reform (Fire Safety) Order 2005** with the following material.

### Regulatory Reform (Fire Safety) Order 2005

The Regulatory Reform (Fire Safety) Order 2005 (RRFSO), which came into effect on 1<sup>st</sup> October 2006, has made significant changes to the way in which employers and people in control of premises are required to manage fire safety. It simplifies existing fire safety legislation in non-domestic premises, and imposes a range of fire safety duties on employers and people in control of premises. The **RRFSO** places a greater emphasis on fire prevention. In simple terms, any person who has a level of control over premises is now required to take reasonable steps to:

- Reduce the risk from fire.
- Ensure people are able to escape safely if there is a fire.

The **RRFSO** applies to almost all workplaces, premises, buildings and structures, and introduces two new terms, the Responsible Person and the Relevant Person. The definitions of these roles are outlined below:

- **Responsible Person**
  - This may be the employer for some, or all, parts of the premises.
  - It may be the owner or agent for shared parts of premises or for shared fire safety systems.
  - It may be the occupier if they have control over the premises.
  - It may be the self-employed if they have control over the premises.
  - It can be **anyone** who has a level of control over all, or part, of the premises.
  - Where there is more than one responsible person (e.g. shared premises), each must co-operate with the others as far as is necessary to comply with the requirements of the **RRFSO**.
- **Relevant Person**

This means anyone who may be lawfully on the premises, or nearby, and may be at risk in the event of fire.

Under this legislation, the basic requirements that **must** be addressed by all 'responsible persons' can be summarised as follows:

- Conduct a fire risk assessment for the premises over which you have control.
- Identify the fire hazards and risks associated with the premises, materials/substances, activities, etc.
- Identify the people (or groups of people) at risk, and anyone who may be especially at risk.
- Remove or reduce the risks as far as reasonably possible.

- Put in place general fire precautions to deal with any remaining risks.
- Implement additional preventive and protective measures if flammable or explosive substances are used or stored on the premises.
- Develop and implement appropriate emergency procedures (with adequate resources).
- Keep a record of the significant findings of the risk assessment and actions you have taken to remove/reduce risk.
- Review the risk assessment (periodically, or after significant changes in the workplace, or when there is reason to believe it may no longer be valid).

Enforcement of the requirements of the **RRFSO** is principally the responsibility of:

- **The Fire and Rescue Authority**
  - For the majority of workplaces.
- **The Health and Safety Executive**
  - For construction sites.
  - For nuclear installations.
  - For ships (under construction/repair).
- **Local Authorities**
  - For sports grounds.

The most common means of enforcement of the requirements of the **RRFSO** is the issue of Notices by Inspectors.

- **Alterations Notices** are issued on the premises at the discretion of the enforcing authority. They are issued if the premises constitute a serious, or may constitute a serious, risk if changes were to be made to them or their use. If a notice is issued the person receiving it must inform the enforcing authority of any proposed changes.
- **Enforcement Notices** generally require the Responsible Person to take action to improve specific aspects of the fire safety arrangements within a stated period of time.
- **Prohibition Notices** generally require the Responsible Person to cease specified operations or activities until such time as the required improvements have been made. Alternative enforcement arrangements apply for certain categories of Crown and Defence premises.

**RRFSO** requires that a suitable and sufficient fire risk assessment be carried out. Health and safety assistance, information for employees, co-operation and co-ordination, and persons working in host employers' undertakings all have to be considered as part of the risk assessment process.

An 'entry level guide' and a series of more detailed fire safety guides, relevant to different types of premises, have been produced by the Department for Communities and Local Government. Current titles include:

- *Factories & Warehouses*
- *Premises Providing Sleeping Accommodation*

- *Small/Medium Places of Assembly*
- *Large Places of Assembly*
- *Offices & Shops*
- *Residential Care*
- *Theatres & Cinemas*
- *Educational Premises*
- *Healthcare Premises*
- *Transport Premises*
- *Open Air Events*

Further information is available from: [www.communities.gov.uk](http://www.communities.gov.uk)

## Changes to the Building Regulations

Changes to Part B (Fire Safety) of the **Building Regulations 2000** came into force on 6th April 2007. The Regulations have been amended by the **Building and Approved Inspectors (Amendment) Regulations 2006**. Approved Document B (Fire Safety), which provides practical guidance, has also been amended.

The changes introduce a new requirement for the owners of non-domestic buildings to ensure that occupiers are made aware of the fire protection measures specific to that building, in order to assist with the preparation of fire risk assessments under the **Regulatory Reform (Fire Safety) Order** regime.

For new projects, including the erection, extension or material alteration of a building, this will mean that facilities managers will be provided with a fire safety manual including all the information necessary to create a fire risk assessment for the building under their care.

# ELEMENT 5: FIRE HAZARDS AND CONTROL: FIRE CONTROL MEASURES

## Fire Control Measures

In the main section **FIRE CONTROL MEASURES**, replace the text in the section headed **Control of Ignition Sources** with the following material.

### Control of Ignition Sources

Most fires in the workplace are caused by a lack of control over sources of ignition. These are invariably preventable by carefully designed working systems and practices.

'No smoking' policies have been in place for many years in areas where there is a particular fire risk – for example, in respect of flammable materials – and were extended to many other work and public areas. However, since 1<sup>st</sup> July 2007 it has been against the law to smoke in virtually all enclosed public places, workplaces and in public and work vehicles (see Element 7).

Discarded cigarettes or matches have been responsible for many fires, resulting in considerable loss of life, injury and financial loss.

## ELEMENT 6: CHEMICAL AND BIOLOGICAL HEALTH HAZARDS AND CONTROL

In the main section headed **HEALTH HAZARDS OF SPECIFIC AGENTS**, replace all the text under the heading **Asbestos** with the following material.

Asbestos is a widely used, natural material that, although now banned, is much in evidence in many workplaces. Previously used as an insulation and fire-resistant material in building construction, it was also a common friction lining in machinery (brakes, clutch plates, etc.).

The main regulations governing all work with asbestos on workplace premises are the **Control of Asbestos Regulations 2006**. These Regulations bring together the three previous sets of Regulations covering the prohibition of asbestos, the control of asbestos at work and asbestos licensing. They cover all those people who are liable to be exposed to asbestos and place on employers an explicit duty to manage asbestos in non-domestic premises (no decision has been taken yet relating to domestic premises).

The Regulations prohibit the importation, supply and use of all forms of asbestos. They continue the ban introduced for blue and brown asbestos in 1985 and for white asbestos in 1999. The ban applies only to new use of asbestos. If existing asbestos containing materials are in good condition they may be left in place, provided their condition is monitored and managed to ensure they are not disturbed. However, the second-hand use of asbestos products, such as asbestos cement sheets and asbestos boards and tiles, including panels which have been covered with paint or textured plaster containing asbestos, is banned.

Asbestos is one of two exceptions to **COSHH** (the other being lead).

The inhalation of asbestos fibres causes incurable respiratory diseases, mainly cancers of the lung and chest lining. Death may not occur until 15-60 years after exposure though the initial symptoms (breathlessness and coughing) can appear sooner. Although the use of asbestos is now banned, currently 3,000 people are dying each year due to previous exposures, and this number is still rising and expected to peak at about 10,000 pa around 2010. Three main types of respiratory disease associated with asbestos can be distinguished:

- Asbestosis is the formation of scar tissue (fibrosis) in the walls of the alveoli (air sacs) causing thickening and hence slowing the passage of oxygen into the blood, so causing breathlessness on exertion.
- Mesothelioma is a type of cancer of the lining around the lungs and of the abdomen (through swallowing asbestos fibres).
- Lung cancer occurs particularly amongst smokers exposed to asbestos. Fibres protecting the lungs are flattened after inhaling cigarette smoke, so there is less protection against asbestos fibres.

We still have the legacy of thousands of tonnes of asbestos in existing buildings. Some of it is bound up in products such as asbestos cement and sprayed coatings. As long as it is in good condition and not disturbed then it does not pose a significant risk. The **Control of Asbestos Regulations 2006** place duties on employers to manage the risk from asbestos by:

- Finding out if there is asbestos in the premises, its amount and what condition it is in.

- Presuming materials contain asbestos unless you have strong evidence that they do not. This can be done by undertaking a survey (see later).
- Making and keeping up-to-date records of the location and condition.
- Assessing the risk.
- Preparing a plan to manage the risk.
- Taking steps to put the plan into action.
- Reviewing and monitoring the plan and arrangements.
- Providing information to anyone who is likely to work on or disturb the asbestos.

Eventually, it will have to be removed by specialist contractors. It is disposed of in licensed landfill sites.

All air is contaminated to some degree with asbestos fibres, but this background level is not a cause for concern, and in any case there is nothing we could do about it. What we have to avoid is further contamination occurring.

Asbestos is a naturally occurring mineral containing silicates. There are many types. The most common is serpentine asbestos such as chrysotile, commonly known as white asbestos. Note that the others may also look white! This is the least harmful form, and its use has only been banned totally since 1999. Nevertheless it is not without some risk to health, partly because it often contains some of the other types.

Amphibole asbestos includes blue asbestos (crocidolite) and brown asbestos (amosite), which have a higher risk of health effects, as well as tremolite, anthophyllite and actinolite. They have been banned for some time, but still exist in older buildings. Anywhere they are identified, they should be removed by specialist contractors taking appropriate precautions.

Originally, the groups of workers most at risk were those mining the mineral (not in the UK), those processing it, and those applying it in a loose form such as lagging. They still comprise a high percentage of new cases. Since its use was banned, building maintenance, refurbishment and demolition workers have become most at risk.

## Surveys

Whoever has control of a building has a duty to manage the asbestos in their building. This starts with taking reasonable steps to find out if there are materials containing asbestos in the premises and, if so, how much, where they are and what condition they are in. This can – but does not have to – involve a survey. A survey can be:

- Type 1 – presumptive. This is to locate materials assumed to contain asbestos and note what condition they are in. No sampling is done.
- Type 2 – sampling. This is the same as type 1 but samples are taken and analysed to confirm whether asbestos is present.
- Type 3 – full access. This involves getting full access to all parts of the building, using destructive inspection if necessary. This type is usually used just before demolition or major refurbishment.

## ELEMENT 7: PHYSICAL AND PSYCHOLOGICAL HEALTH HAZARDS AND CONTROL

In the main section headed **WELFARE AND WORK ENVIRONMENT ISSUES**, replace the material in the sub-section **Smoking** with the following text.

### Smoking

The following three Regulations came into effect on 1st July 2007 in England. Similar legislation has already been introduced in Scotland and Wales.

- The **Smoke-free (Premises and Enforcement) Regulations 2006**.
- The **Smoke-free (Exemptions and Vehicles) Regulations 2007**.
- The **Smoke-free (Signs) Regulations 2007**.

The new smoke-free law has been introduced to protect employees and the public from the harmful effects of second-hand smoke.

It is now against the law to smoke in virtually all enclosed public places, workplaces and in public and work vehicles. Indoor smoking rooms in public places and workplaces are no longer allowed. Managers of smoke-free premises and vehicles have legal responsibilities to prevent smoking and to ensure that no-smoking signs are displayed. The law applies to anything that can be smoked. This includes cigarettes, pipes (including water pipes such as shisha and hookah pipes), cigars and herbal cigarettes. Failure to comply with the new law is a criminal offence. Local councils are responsible for enforcing the new law and offer information, advice and support to businesses to help them with its enforcement.

## ELEMENT 8: CONSTRUCTION ACTIVITIES – HAZARDS AND CONTROL

In the main section headed **GENERAL PRINCIPLES OF CONSTRUCTION**, replace the text from the heading **Management Controls** to the sub-heading **Health and Safety Plan** with the following material.

### Management Controls

Due to the nature of both the risks involved and the practice of using multiple contractors and subcontractors in construction work, the basis of safety lies very much with management control. This is addressed by the **Construction (Design and Management) Regulations 2007 (CDM)**, which replace the 1994 Regulations. These Regulations impose a framework of safety management on construction work. They place duties on construction companies and individuals who are involved in construction work from the planning and design stages through to completion and handover. These Regulations have an associated Approved Code of Practice, L144.

The Regulations apply to any construction work excluding:

- Work, other than demolition, that does not last longer than 30 days or 500 person-days.
- Work for a domestic client.
- Work carried out inside offices and shops or similar premises without interrupting the normal activities in the premises and without separating the construction activities from the other activities.

Note that the Regulations apply to any work which includes demolition.

### Duties and Duty Holders under CDM 2007

There are a number of very specific duties and requirements placed on all duty holders by the Regulations. The summary below provides a brief outline of some, but **by no means all**, of the key responsibilities.

- **The Client**

The individual or organisation for whom a construction project is carried out.

Key duties include:

- To take reasonable steps to ensure that:

Adequate health, safety and welfare arrangements (including the allocation of time and resources) are implemented.

The design of a structure intended to be used as a workplace complies with the requirements of the **Workplace (Health, Safety and Welfare) Regulations 1992**.

Where a project is notifiable to the HSE (i.e. projects of more than 30 days' duration or involving more than 500 person-days), a competent CDM Co-ordinator is appointed.

- To appoint a competent Principal Contractor.

- To provide information to other duty holders on any issues affecting the site, the construction work, the proposed use of the structure, the time available for planning and preparation, and any relevant information from an existing health and safety file.
- To ensure that the construction phase does not start unless the Principal Contractor has prepared a construction phase plan.

- **The Designer**

Persons involved in the preparation of, or who arrange for other people to prepare, designs for construction work.

Key duties include:

- To ensure that the Client is aware of his duties under **CDM 2007**.
- If the project is notifiable, to ensure that a CDM Co-ordinator has been appointed.
- To avoid, when preparing a construction design, foreseeable risks to the health and safety of anyone who may be:
  - Carrying out the construction work.
  - Affected by the construction work.
  - Involved in maintenance operations or cleaning work.
  - Using a structure that has been designed as a workplace.
- To eliminate hazards and reduce remaining risks.
- To ensure that the workplaces they design comply with the **Workplace (Health, Safety and Welfare) Regulations 1992**.
- To provide information about any aspects of the design, construction or maintenance of the structure, that will assist other duty holders in complying with their duties under the regulations.

- **The CDM Co-ordinator**

Persons appointed to provide advice and assistance to the Client on measures required to comply with **CDM 2007**.

Key duties include:

- To advise the Client on the adequacy of the risk control arrangements put in place by other duty holders.
- To notify the HSE of the project.
- To provide assistance and advice on the appointment of competent contractors and designers.
- To ensure proper co-operation and co-ordination of the health and safety aspects of the design and planning process.
- To facilitate good communication and co-operation between members of the project team.
- To prepare a health and safety file, to liaise with the Principal Contractor over the content of the file, and to ensure it is received by the Client at the end of the construction phase.

- **The Principal Contractor**

The principal contractor is in charge of the site.

Once appointed, the principal contractor is responsible for developing and completing the initial health and safety plan for the construction phase and, once work has commenced, should help the CDM Co-ordinator collate information for the health and safety file.

During work, the principal contractor will co-ordinate the activities of all contractors to ensure that each complies with relevant health and safety legislation and with the details of the health and safety plan, that they liaise and co-operate with each other and that they provide adequate information and training to their employees.

To this end, the principal contractor may set site rules and give directions to other contractors. The principal contractor should review contractors' risk assessments and method statements, check their adequacy and agree and **co-ordinate arrangements** for activities which present risks to several contractors or where one contractor is at risk from another. The principal contractor may have to take the lead in preparing assessments for areas or activities on site where several parties could be exposed to risk.

The principal contractor is also responsible for taking reasonable steps to ensure that only authorised persons are allowed onto site.

- **Other Contractors**

Other contractors appointed must provide information for the health and safety plan in the form of risk assessments and control measures for the aspects of the work for which they have been appointed. They must, then, comply with the health and safety plan and the directions of the principal contractor.

They must also provide information for the health and safety file and tell the principal contractor about any injuries or incidents.

- **All Duty Holders**

The need to establish the **competence** of all persons involved in a construction project features strongly in **CDM 2007**. As such, there is a new general duty, upon all duty holders:

- **Not to appoint** a CDM Co-ordinator, Designer, Principal Contractor or Contractor unless reasonable steps have been taken to ensure that the person to be appointed is competent.
- **Not to accept** any such appointment themselves unless they are competent to do so.
- **Not to arrange** for a worker to carry out or manage any construction or design work, unless the worker is competent to do so or is under the supervision of a competent person.

## Notification of Projects

Projects are notifiable to the HSE when the construction phase is planned to last over 30 days or involve more than 500 person days. Thus, for example, where 15 people will be working on a site for 10 days (i.e. 150 person days) the project is not notifiable, where 30 people will be working for 20 days (600 person days) the project is notifiable, and where 10 people will be working for 34 days (340 person days) the project is still notifiable because, although less than the specified 500 person days, the construction phase will last longer than 30 days.

The information required in the notification includes the following:

## S-NGC2.1.1

- Exact address of the construction site.
- Brief description of project and construction work involved.
- Contact details of client.
- Contact details of CDM Co-ordinator.
- Contact details of Principal Contractor.
- Planned date for the start of the construction phase and its planned duration.
- Time allowed for planning and preparation for construction work.
- Estimated maximum number of people at work on the construction site.
- Planned number of contractors on the construction site, together with the details of those already appointed.

### **Additional Note Relating to NGC2, Element 8: Construction Activities – Hazards and Control**

Please note that under the **Construction (Design and Management) Regulations 2007** the role and function of the Planning Supervisor has been replaced by that of the **CDM Co-ordinator**. You should therefore amend any references to the Planning Supervisor, in Element 8, to CDM Co-ordinator.