

**Guidance Notes to the
Certificate of Competence of Demolition
Operatives CSCS affiliated scheme**

The National Federation of Demolition Contractors (NFDC) in conjunction with the National Demolition Training Group (NDTG) has made every effort to ensure that the information contained within this publication is accurate. Its content should be used as guidance material and not as a replacement of current regulations or existing standards.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, electrostatic, magnetic tape, mechanical, photocopying, recording or otherwise, without permission in writing from the NFDC and NDTG.

Printed in the UK

First Edition March 2007

CONTENTS

	Page No.
Preface	5
General Safety Statement	6
Guidance Notes to Employers	7
 PART A: ENABLING SKILLS AND KNOWLEDGE	
1 Interpreting drawings/oral/written instructions	11
2 Planning, organising and co-ordinating own work	12
3 Adopting safe working practices	13
4 Identifying and maintaining hand tools	15
5 Using hand tools and working closely with mechanical plant	16
6 Understanding and using legislative and company documentation	17
 PART B: SPECIFIC WORK ACTIVITIES	
1 Erecting and dismantling site fencing using proprietary systems	23
2 Sealing off exposed drains	24
3 Clearing out building	26
4 Boarding/sheeting up windows and door openings	27
5 Cleaning bricks for re-use and re-sale	28
6 Cleaning timber for re-use and re-sale	29
7 Setting up and using a pneumatic drill/breaker	30
8 Erecting and dismantling screens and dust sheets	32
9 Disposing of waste arisings	33
10 Stripping structure of salvageable fittings and materials	35
11 Stripping structure of non salvageable materials (soft strip)	37
12 Setting up and using chain-saw	38
13 Setting up and using mechanical cutting tools including fitting abrasive wheels/discs	39

PART B: SPECIFIC WORK ACTIVITIES (cont'd)

	Page No.
14 Cutting up metal with fuel/gas cutting equipment	40
15 Carrying out Banksman duties	41
16 Basic requirements for setting up site	42
17 Working at height	44
18 Opening up buildings/structures by partial removal of non-load bearing walls/partitions	45
19 Dismantling roofs constructed with timber and tiles/slates	47
20 Demolishing reinforced concrete roofs and suspended floors	49
21 Demolishing by hand buildings and structures constructed of masonry, concrete and timber	51
22 Demolishing / Dismantling fragile roof coverings and cladding	53
23 Demolish / Dismantling steel frame structures	54
24 Building construction techniques and safe demolition procedures	56

PART C: FURTHER ACTIVITIES

1 Erect and dismantle access equipment	58
1.1 Erecting and using ladders	58
1.2 Using working platforms	59
1.3 Erecting access systems	61
1.4 Dismantling access systems	62
2 Erect and secure temporary supports to structures	63
3 Erect and dismantle plant (cranes & rigs)	64
4 Locate services	66
5 Remove waste material and substances	67
6 Carry out slinging, signalling, inspecting and controlling for loading and unloading materials	68
7 Operating plant and machinery to receive and transport loads	70

Appendix A - Mapping to NVQ Modules

PREFACE

This training specification is intended for those concerned and involved in vocational training for a specific occupation within the construction industry.

Training in accordance with the contents of the specification will prepare an operative for the attainment of a qualification in Demolition via the CCDO and NVQ assessed routes.

The Demolition Industry requires that workers attain a level of competency that meets industry and awarding body standards. The Demolition Industries standards are defined within the 'Certificate of Competence Scheme for Demolition Operatives', whilst the Awarding Body standards are defined within the National Vocational Qualifications award (NVQ) and the Scottish National Vocational Qualifications award (SNVQ). Both schemes are based on peer assessment although individual profiling may assist in the identification of training requirements necessary to meet the standards.

Further information on the NVQ achievement process is available from NVQ accredited centres, NDTG, NFDC, or local CITB ConstructionSkills offices.

PART A: Enabling Skills and Knowledge

Part A of this guidance for training brings together the enabling practical skills and job knowledge activities which, in part or whole, are common to the specific activities contained in Part B.

These enabling activities include the interpretation of drawings/oral/written instructions, adopting safe working practices, the use of tools and equipment, and general knowledge etc.

Operatives who can demonstrate to an employer that they have part of the knowledge and/or practical skills (known as 'prior achievement') will be able to proceed to the appropriate stage of the specific work activities in Part B.

PART B: Specific Work Activities

Part B aims to enable employers to show operatives how to provide the evidence of practical and knowledge competency necessary for qualifications in Demolition.

Part B is divided into activities which can be taken together with part or the whole of the enabling activities in Part A.

PART C: Further Activities

Completing these essential activities will enhance the knowledge of operatives wishing to progress to higher levels including supervisory and management who have completed Part A and Part B with the range of competence requirements for a skilled demolition operative.

Mapping

The training activities laid down in this guidance document are designed to give the operative an underpinning knowledge towards progress in acquiring a National Vocational Qualification. The Certificate of Competence for Demolition Operatives Scheme will form a large part of the evidence needed to demonstrate that level of competency.

GENERAL SAFETY STATEMENT

The National Demolition Training Group considers it has a fundamental duty to help reduce accidents in the industry. Safety and safe methods of working must form an integrated aspect of every activity throughout the entire training programme, even where, to avoid repetition, it is not mentioned under specific activities.

The Health and Safety at Work etc Act 1974 place a general duty upon the employer to provide a safe place and system(s) of work to ensure the health, safety and welfare of employees. A similar obligation is placed upon training establishments to safeguard operatives.

Sufficient information, instruction and training must be given to provide operatives with adequate knowledge to complete their work in a safe manner, ensuring the safety of themselves and others who may be affected by their actions. There should be adequate supervision during the training and work experience period, accepting that the operative may lack experience and an awareness of the dangers which may exist in the task or activity in which they are involved. Equally, trainers and employers should be aware of complacency in more experienced workers where similar tasks to those being demonstrated have been carried out in the past.

Particular attention should be given to the use of hazardous materials and to restricting any operative under the age of 18 when operating plant and machinery prohibited by law for under 18 year old operatives.

The Act also places an obligation on an operative not to interfere with or misuse anything provided in the interest of health, safety and welfare, and to co-operate with their employer in matters relating to health and safety. Simply interpreted, this includes the use of personal protective clothing and equipment, and the use of guards and other devices designed to minimise the risk of injury during practical training and work experience.

Operatives must be made aware of relevant legislation, codes of practice, guidance and information relating to the construction industry; particularly those areas associated with their own occupation. A general knowledge and appreciation of working at heights, site safety and procedures is required. This includes an understanding of Statutory Abstracts and Regulations, warning notices and safety signs displayed, accident reporting procedures and action in the event of fire.

First aid should ideally be administered by a first aid trained person, Operatives should be made aware of what action they are expected to take in any emergency.

Training in the activities listed in this guidance should include the safe use and maintenance of tools and equipment. An awareness of the correct manual handling and lifting techniques for the various materials and equipment associated with the tasks is required. Operatives must report all unsafe practices and defective tools and equipment to the supervisor or other appropriate person.

GENERAL GUIDANCE NOTES TO EMPLOYERS AND OPERATIVES

Practical Application

The activities detailed in these guidance notes should be demonstrated by the operative and observed by the employer until the relevant practical skills have been acquired. Activities may be taken in isolation or combined to cover the whole area of work.

It is essential that all aspects of the duties carried out are done so in a safe manner in compliance with current health and safety practices.

Operatives may work as individuals or in groups. However where group working takes place the employer MUST ensure each operative has acquired a good understanding of the task or subject combined with the relevant skills prior to moving on to other exercises.

Industrial Standards

The standards listed for each activity are those which industry have agreed and expects from an operative whilst progressing to the required card and or NVQ level.

Drawings/Specifications

Every effort should be made to provide operatives with method statements, risk assessments and simple drawings or specifications, with precise instructions (where applicable) at the commencement of each activity; ensuring that they become conversant with their use. This will help them to plan and organise their work.

Tools and Equipment

The selection, maintenance and safe use of hand tools, portable power tools and equipment required to carry out the practical activities should form an integral part of the training.

Operatives must have acquired sufficient practical skills to enable them to use tools and equipment safely and competently before any assessment process takes place.

Tools and equipment where listed in these guidance notes are given as a guide only and may or may not include all that is necessary to carry out the activity. Much will depend on the individual Employer's methods of work. The main criteria being that the job can be carried out competently to the industrial standards specified.

Materials

The selection and economical use of materials is an integral part of training. Where applicable, the operative should be encouraged to select the correct materials required for various processes.

The protection and storage of materials before, during and after carrying out an activity should be included as this is an integral part of the training.

Preparation

Prior to work being carried out, the operative should be encouraged to prepare whatever is required to carry out the activity (tools, equipment, materials, personal protection etc.). This is good practice and avoids time wasted by continually having to return to the base for items overlooked.

Entry Qualifications

New entrants to the industry should be supervised at all times, and because there are no specific entry qualifications other than those governed by legislation i.e. minimum of requirements for driving, use of certain machinery etc. the induction programme given prior to commencement of all training or instruction must reflect this.

Prior Achievement

Prior achievements are simply those competences in job knowledge or practical skills which the operative has already attained which can be used in evidence for the achievement of an NVQ.

These may be in the form of:

- a) qualifications received as a result of job knowledge or practical skills successfully demonstrated
- b) practical skills either in full or part practised at work or outside
- c) job knowledge or practical skills which are transferable from one area to another.

Such evidence may be provided by way of:

- reports, plans, drawings, data, video footage , photograph etc. carried out by individuals in the past
- previous certificates of achievement
- written accounts of work activities, endorsed as authentic (i.e. by previous employers or work based recorders)
- demonstration where the individual has obtained skills and knowledge without supporting evidence

The assessor will ascertain the prior achievement and the results will be reflected in the operative assessment procedure.

The advantage of taking prior achievement into account is that it avoids duplication of training, and thus helps motivate operatives. It also improves access to, and speeds up the process of acquiring, qualifications for experienced and mature individuals who have not previously had the opportunity to demonstrate their competence.

Disabilities and Learning Difficulties

Employers should be aware of any disability or learning difficulties employees may have and should take this into consideration when preparing and carrying out the training.

Qualifications

Employers should prepare operatives for the assessment process at both CCDO and NVQ scheme standard requirements. These guidance notes are mapped to follow the standards set within the schemes at SNVQ / NVQ levels 2 & 3 and at the CCDO levels Labourer, Mattock man, Top man and Supervisor.

Refer to Appendix A for mapping of this Guidance Document to NVQ levels

PART A
ENABLING SKILLS AND KNOWLEDGE

ACTIVITY 1 – Interpreting Drawings/Oral/Written Instructions

Before the operative is submitted for either Industry or NVQ Assessment they must be able to:

Explain and Demonstrate

Importance of interpreting drawings

Need to understand oral messages accurately and relay all information and instructions

Methods of reporting inaccuracies in information received both oral and written

Industrial Standards

Details taken from drawings and work as directed

Oral information understood and carried out without error as requested

Information relayed orally to client/other trades/supervisor clearly and accurately

Specifications/schedules interpreted correctly

Written/manufacture's instructions for assembly/fixing/application carried out as stated
i.e. Mobile tower instructions

Notes to Employers

In order to ensure that the 'Safe System of Work' is to function effectively, the employer should concentrate on the necessity of a clear and concise programme of Induction, reading of the works 'Method Statement' to a full understanding, and knowledge of the required control measures identified by the 'Risk Assessment' process.

Although a reasonable level of knowledge in metric measurement and the interpretation of drawing etc are useful, the trainer / employer should pitch his or her instruction according to the academic level or time spent in industry by the individual operative. It may also be useful to point out that it would generally fall to his or her supervisor to interpret the information found within detailed site drawings

ACTIVITY 2 – Planning, Organising and Co-ordinating Own Work

Before the operative is submitted for either Industry or NVQ Assessment they must be able to:

Explain and Demonstrate

Reason for co-ordinating own work and working with other occupations (meeting production targets, integrating work, correct construction/demolition procedures)

Corrective actions to be taken with sub-standard materials, components and quality of work (replacement of materials/components, rectification of work)

Procedure for carrying out the work so that the requirements and property of the client are considered

Method of co-ordinating own work with other occupations (liaison work supervisor, colleagues, counterparts, clients)

Sequence of carrying out own work activities

Protection of materials, components, work and customer's/client's property (stored, installed and work in progress)

Estimating quantity of arisings from the Demolition including segregation of various waste streams (size of each component, component positions, total length, number of each item)

Industrial Standards

Identify and segregate various waste streams (Hazardous / Non-Hazardous Waste)

Materials and components protected from damage at all times and stored correctly

Work carried out in co-operation with other trades and/or client

Work planned, organised and carried out efficiently

Work protected on completion

Work place made secure on completion works

Client property protected to prevent damage

Notes to Employers

The use of the word 'materials' is to enable the employer to discuss removing, handling, stacking and eventual loading of all manner of demolition oriented materials. Particular attention may be given to the importance of recycling, re-use and reclaimed materials generated by the 'soft strip' or 'pre-strip' process. The evaluation process where the operative determines the type and quantity can be referred to the requirements necessary in Activity 1.

ACTIVITY 3 – Adopting Safe Working Practices

Before the operative is submitted for either Industry or NVQ Assessment they must be able to:

Explain and Demonstrate

How to identify and report the following.

- Faults in equipment, premises, tools
- Obstructions to safe access/egress of materials, equipment and personnel
- Faulty storage of materials and equipment
- Electrical, gas, water etc, supply exposed/disconnected/made safe

Protection of tools, sharp edges liable to cause damage

Reason for keeping work area free from materials liable to cause damage/accident

Need to de-nail timber (bending over of nails acceptable)

Procedure for reporting/dealing with unsafe practices, hazards, tools and equipment

Range of personal protective equipment (eyes, ears, inhalation, feet, hands, body, head)

Correct methods of lifting materials manually to avoid injury

Employers and employees responsibilities regarding statutory regulations

Safe use of ladders, stepladders, trestles

Safe use of access platforms

Meaning and purpose of safety signs and symbols

Fire and emergency precautions and procedures

Classification of fire extinguishers, types and selection of their use

ACTIVITY 3 – Adopting Safe Working Practices (cont'd)

Responsibility for recording accidents in the accident book

Reason for lighting public places

Need for safe passage around work area and protection for public and others

Industrial Standards

Own work area free from hazards/defects

Appropriate protective clothing worn

All equipment used safely

Regulations, codes of practice and guidelines complied with

Tools correctly protected and handled

Work carried out in a safe manner without hazard to self or others

Correct use of access platforms

Access equipment erected correctly and used safely

Fire and emergency procedures implemented properly and correctly

Accident book completed immediately and accurately

Extinguisher(s) correctly selected for class of fire

Extinguisher(s) correctly handled and operated

Notes to Employers

Employers must ensure that all operatives have attended, or are due to attend, a Safety Awareness course and an Asbestos Awareness course designed to explain and advise on hazards associated with work on a demolition site.

ACTIVITY 4 – Identifying and Maintaining Tools & Equipment

Before the operative is submitted for either Industry or NVQ Assessment they must be able to:

Explain and Demonstrate

Names and purpose of basic hand tools:

Hammers, saws, rule/tape, screwdrivers, wrecking bar, mattock, spanners, shovel, broom, nail bar

Abrasive disc cutter (air and petrol powered etc), reciprocating saw, pneumatic breaker / drill, hydraulic shear (hand held), oxy-propane cutting equipment

Precautions to be taken when storing/guarding tools not in use

How tools can cause damage if misused or left lying about in work area

Types and purposes of:

Generators

Pumps

Lighting systems

Compressors

Welfare and decontamination units

Mobile Access platforms

Industrial Standards

Tools identified and named correctly

Tools cleaned and stored when not in use

Equipment maintained, cleaned and used correctly

Reporting of all defects or irregularities within site equipment

Notes to Employers

Where tools and equipment are listed they are given as a guide only. Employers must ensure that users or supervisory staff know and understand the requirements for maintenance and recording set out within the Provision & Use of Work Equipment Regulations 2002 (PUWER) and the Lifting Operations Lifting Equipment Regulations 1998 (LOLER).

ACTIVITY 5 – Using Hand Tools and Working Closely with Mechanical Plant

Before the operative is submitted for either Industry or NVQ Assessment they must be able to:

Explain and Demonstrate

Use of hand tools listed in previous activity to carry out the following:

- Measuring, and marking out
- Cutting/Sawing
- Breaking / drilling / shearing
- Unscrewing
- Removing/dismantling
- Levering
- De-nailing
- Shovelling
- Sweeping

Setting up and using fuel and electrically operated equipment

Setting up and using air and water operated equipment

That all safety devices are fitted and operating correctly

That correct PPE / RPE is available and how and when to wear

All potential for hazardous / unsafe conditions are identified

All engineering controls are assessed and utilised as necessary

Industrial Standards

Tools and equipment used safely and correctly

Correct tool and equipment selected for the job

Notes to Employers

The above activity should be incorporated throughout the activities listed in this guidance, where appropriate

ACTIVITY 6 – Understanding and Using Legislative and Company Documentation

Before the operative is submitted for either Industry or NVQ Assessment they must be able to:

Explain and Demonstrate

What the principle components are of their companies Safety Policy, i.e.

Person with ultimate responsibility

Other persons or roles of responsibility below this person (company hierarchy)

Arrangements in place to ensure the health, safety & welfare of all

What a Method Statement is, including the principle components, i.e.

Project title, location and brief description of the works

Project team, client's team details and contact details

Identification of significant hazards

Arrangements for safe access, egress, support mechanisms, temporary works etc

Safe system of work, including how each task will be undertaken

Plant and equipment to be utilised etc

What a Risk Assessment is, including the principle components, i.e.

Identification of significant hazards

Giving the tasks a risk rating based on likelihood and severity

Putting in control measures to mitigate the risk

Monitoring the control measures to ensure effectiveness

Review and amend the processes as necessary

Consider residual risk factors

The principle Statutory Legislation governing the workplace; i.e.

H & S at Work etc Act, Construction Regulations, COSHH, Environmental Regulations, Asbestos Regulations, Manual Handling Regulations etc

The relevant Codes of Practice and Guidance Notes etc governing the workplace; i.e.

BS 6187: Code of Practice for Demolition

L143: Working with materials containing asbestos

HSG189 / 1 Controlled asbestos stripping techniques & HSG189 / 2 working with asbestos/cement

PART B
SPECIFIC WORK ACTIVITIES

Building Regulations

No reference is made in the tasks to specific Building Regulations or Codes of Practice; however it is expected that where appropriate these will be incorporated within the employers training programme.

Inner London is controlled through bylaws made under the London Building Acts.

England (other than inner London) and Wales are controlled through the Building Regulations 1991 as amended.

Scotland is subject to the Building Standards (Scotland) Regulations 1990 as amended.

Notification, to Local Authority Building Control, of the demolition of a structure is normally required under the Building Act 1984 Section 80, 81, 82 And 83

PART B

Introduction

Objective of the Scheme for the Certification of Competence

The scheme provides an integrated programme for the demolition industry, between the National Demolition Training Group and the employers taking part in the scheme. The objective of the scheme is to enable operatives to:

- Complete a specified training programme
- Pass the relevant NFDC / NDTG Assessment Process
- Obtain National Vocational Qualifications

Use of the Training Specification

The activities contained in this guidance document form the basis of the competency scheme supported by CSCS Ltd for three grades of demolition operative – irrespective of the mode of training or the age of the entrant.

The employer should consider what depth of knowledge each operative may have acquired or require to enable him or her to determine and set out training needs, in order for the operative to pass the industrial assessment process;

The employer should be aware that the CCDO scheme is mapped with the Magenta S/NVQ and that the question and answer pack mirrors closely all activities listed within this guidance. On reaching the required standard within the card scheme the operative will have provided a substantial degree of his or her competency towards acquiring an S/NVQ.

Employers who need further clarification of the scheme and its link to NVQ should contact the:

National Secretary,

NFDC, Resurgam House, 1a New Road,

The Causeway,

Staines,

Middlesex,

TW18 3DH

01784 456799

The CCDO assessment process comprises of;

Demolition Operative (Labourer) – General Workplace Safety 21 questions

Efficient Work Practices 16 questions

Move & Handle Resources 15 questions

Remove Components prior to Demolition 18 questions

Demolish / Dismantle brick, masonry and concrete

	Structures 11 questions
Demolition Operative (Topman) –	General Workplace Safety 3 questions
	Efficient Work Practices 5 questions
	Move & Handle resources 5 questions
	Remove components prior to demolition 3 questions
	Demolish / Dismantle brick, masonry and concrete structures 9 questions
	Demolish / Dismantle timber framed & cladged structures 3 questions
	Demolish / Dismantle steel framed structure 4 questions
	Plant & machinery operator maintenance 3 questions
Additional and optional -	Erect and dismantle access / working platforms 4 questions
	Slinging & signalling the movement of loads 4 questions

The pass mark for Labourer category is 75%

The pass mark for Top man category is 80%

Labourer candidates who fail to meet the required standard will be referred to their employer for further training and will be required to undertake the assessment again. Topman candidates who fail to meet the required standard will be awarded a Mattockman card. There is no limit on the number of times a candidate may re-take the CCDO assessment to achieve the desired level of competency.

It is the intention that operatives will progress from one grade to another depending on their knowledge and experience gained by acquired practical skills and or completion of relevant training.

During training and site experience, operatives must be under the immediate supervision of a competent supervisor. New entrant operatives will be issued with a transitional card (Green) which is valid for two years and is non renewable

It is critically important that all operatives receive training and site experience in the specified activities before being entered for their Assessment as a Demolition Operative (Labourer) and Demolition Operative (Topman), at the end of their appropriate period of training.

Activities

All activities are divided into sub tasks, where activities are repeated for the higher grade of operative, operatives will be expected to carry out more complex tasks in that activity. This will enable the correct training, work experience and assessments to be carried out.

The employer must carry out his or her own assessment of the ability of their individual employees when allocating training. This principle will apply when using this guidance, and

the activities suggested, as an indicator of the skills needed for each operative to meet the standards set within the CCDO scheme. To assist the employer in this task the activities have been given a classification, i.e. prefix (L) will indicate the task is set at Labourer level and prefix (T) at Topman level. However, this is a guide only and the employer must make the final decision on the individual's ability to meet the standard.

KEY (L) Sub task applies to Demolition Operative (Labourer), Demolition Operative (Mattockman) and Demolition Operative (Topman)
(T) Sub task applies to Demolition Operative (Topman) only

Safety

The NFDC and NDTG regard it as a fundamental duty to help reduce accidents in the industry. Therefore, safety and safe methods of working must be integrated in every activity throughout the entire training programme, and full use made of the appropriate personal protective measures.

- Notes:**
1. All services should be disconnected before work commences. Enquiries must be made to check whether this has been done.
 2. It is essential that all operatives carrying out the tasks listed in this manual are aware of the appropriate Construction Regulations, all other relevant legislation, and that they comply with these Regulations and responsibilities. Operatives should also be made aware of the recommendations given in the British Standards Code of Practice – Demolition (BS 6187):2000 and all relevant Health, Safety and Environmental guidance

Standards

Standards have been incorporated in this document. The standards which operatives will be expected to achieve are the standards which industry expects from a Demolition Operative as he or she progresses through each assessed level of competency

These guidance notes have been revised from an original training standards edition that were produced to meet the needs of the demolition industry, in the light of present day technology, methods of work and the NDTG assessment process

ACTIVITY 1 – Erecting and Dismantling Site Fencing Using Proprietary Systems i.e. ‘Heras’ and ‘Solid Panel’

On completion of training the operative will be able to:

Explain and Demonstrate

- (L) Method of measuring and marking out feet or block positions along the proposed line for the fencing
- (L) Erecting panels as required for the chosen method of erection at correct distance
- (L) Method of securing fencing panels to adjacent panels and bracing
- (L) Method of using appropriate hand tools correctly and safely
- (L) How to fix demolition warning notices and company board to fencing
- (L) Procedure for dismantling fencing safely for re-use
- (L) Importance of erecting fencing using a correct and safe method of work
- (L) How to comply with the capabilities and limitation of various types of fencing

Industrial Standards

Correct protective clothing worn by operative

Fencing erected in correct position, panels plumb and consolidated/firm

Fencing panels secured correctly and braced against inclement weather conditions

Correct tools and method used to erect fencing

Warning & information notices, correct type and displayed in prominent position

Fencing dismantled correctly and safely ready for re-use

Notes to Employers

Employers are advised to describe the various types of fencing panels in use, including where some specifications require ‘anti-climb’ mesh etc. It is important that operatives are made aware of the safety information signs to be displayed at the site entrance, particularly those giving instruction on mandatory wearing of PPE and RPE.

In the event that demolition operatives may be required to assist in the erection of timber hoardings, it is of vital importance that a survey of the ground conditions and location of services are completed prior to any excavations of post holes etc.

ACTIVITY_2 – Sealing Off Exposed Drains

On completion of training the operative will be able to:

Explain and Demonstrate

- (L) Procedures to adopt for working in confined spaces
- (L) How to identify and evaluate inlet and outlet points within manholes
- (L) Method, using appropriate hand tools, of excavating and exposing drain for sealing
- (L) Types of personal protective equipment required for working in sewage systems
- (L) The identification of types of diseases from contact with hazardous substances
- (L) Importance of the types of personal hygiene procedure to be adhered to
- (L) How to cut drain pipe to required position
- (L) Method of mixing cement mortar
- (L) How to plug drain with appropriate material
- (L) Procedure for sealing drain with cement mortar using appropriate hand tools
- (L) How to protect wet cement mortar from weather etc. until cured
- (L) Method used to excavate in various ground conditions to expose pipe without damage
- (L) How to select and use appropriate hand tools (trowels etc.) for spreading and finishing cement mortar over drain
- (L) How to locate underground services using cable detection equipment and or hand digging
- (L) Procedure for taking necessary action on the exposure of underground services
- (T) Reason for providing temporary support to excavations as required

Industrial Standards

- Correct tools and method used for exposing drains
- Pipes cut correctly to required position
- Mortar mixed to correct consistency
- Drain plugged with appropriate material
- Drain sealed correctly with mortar
- Sealed drain protected adequately until cured

ACTIVITY 2 – Sealing Off Exposed Drains (cont'd)

Industrial Standards (cont'd)

Correct procedures adopted for working in confined spaces that incorporate Permit to Work, Risk Assessment, Explosive or Toxic atmosphere testing etc

Sufficient and adequate information regarding contact with hazardous substances

Correct personal protective equipment identified and worn by operative

Personal hygiene procedures adhered to

Notes to Employers

Employers are to advise operatives that access into deep manholes or below ground chambers should not be attempted without adequate training and emergency rescue systems in place.

The use of mechanical plant in removing sections of disused pipe is desirable, where practical, in the interests of personal health and hygiene.

Operatives should be advised that it is imperative that outlet pipes are to be sealed to prevent any debris from entering the main line systems and rodents from using as a passage.

ACTIVITY_3 – Clearing Out Buildings

On completion of training the operative will be able to:

Explain and Demonstrate

- (L) Types of personal protective equipment appropriate to this operation
- (L) Survey / inspection of structures to determine safe routes of access and egress
- (L) Checks on hazardous / contaminated materials or substances i.e. sharps, excrement etc
- (L) Method of removing all loose and abandoned items
- (L) Method of loading materials onto transport and covering as appropriate
- (L) Identification of materials etc., which would cause hazards if disposed of by burning on site
- (L) How to manually lift material correctly, so as to minimise the risk of back injury
- (L) Use of mechanical aids / plant where practical
- (L) How to lower materials safely from elevated working positions
- (L) Need to comply with statutory and local authorities' regulations for the burning of materials on site (where permissible)
- (L) Provision of suitable and adequate fire fighting arrangements
- (T) Importance of identifying and selecting a suitable area for burning and disposal of materials
- (T) How to dispose of items removed in accordance with The Environmental Protection (Duty of Care) Regulations 1991 and the Hazardous Waste Regulations 2005

Industrial Standards

Correct protective clothing worn by operative

Hazardous or suspect materials identified/location and appropriate action taken (line manager informed)

Work carried out in a safe manner

Burning on site carried out safely (where permissible)

Materials loaded correctly

All lifting carried out safely

Notes to Employers

Employers must emphasise the importance of pre-start survey's and inspections prior to commencement. Where burning of timber materials is authorised, trainers are to instruct operatives on Part 3 Environmental Protection Act 1990, Statutory Nuisances

and Clean Air. Identification of the 'Ringleman Chart' (smoke density) and its relevance would be advantageous.

ACTIVITY 4 – Boarding/Sheeting Up Windows and Door Openings

On completion of training the operative will be able to:

Explain and Demonstrate

- (L) Types of personal protective equipment appropriate to this operation
- (L) Selection and use of safe and adequate access equipment for above ground floor work
- (L) Method of measuring, marking and cutting timber to length
- (L) How to secure timber to glazing frames, window and door openings
- (L) How to follow standard procedures for removing glass safely, and reasons for removal
- (L) Use of mechanical aids / plant where practical for removal of glazing
- (L) Identification and selection of suitable material for boarding up
- (L) Method used to select the correct length of nail for securing boarding
- (L) Purpose of boarding up windows and doors safely to protect general public, site personnel and deter trespassers

Industrial Standards

Correct protective clothing worn by operative

Glass/sashes removed from windows safely

Correct methods used for removal of glass/sashes

Correct type of timber/boarding/sheeting selected for use including correct type of fixings

Window and door openings boarded up satisfactorily to suit requirement

Work areas to be free of glass fragments to avoid contamination of hard core.

Notes to Employers

Employers are advised to emphasise the importance of clearing glass shards to reduce risk of injury. Cross taping of glazing panels will assist in the reduction of glass ejection when accidental breakage occurs.

Removal of all glazing prior to demolition will greatly assist in the reduction of cross contamination of hard core materials and further reduce the risk of personal injury through materials handling and or slips and trips on surfaces containing glass shards.

ACTIVITY 5 – Cleaning Bricks for Re-Use and Re-Sale

On completion of training the operative will be able to:

Explain and Demonstrate

- (L) Types of personal protective equipment appropriate to this operation
- (L) Method used for sorting and selecting salvageable bricks
- (L) How to clean off cement/mortar from brick with trowel or other appropriate hand tool
- (L) How to stack clean bricks for collection
- (L) Method used to dispose of debris
- (L) The identification of bricks that is salvageable
- (L) How to identify different types of brick
- (L) The reasons for using a trowel or other appropriate hand tool correctly
- (L) Reasons for carrying out the correct procedure for stacking bricks ready for collection
- (L) Methods of securing bricks on pallets ready for transport and or stacking

Industrial Standards

- Correct protective clothing and equipment worn by operative
- Correct types of brick identified for salvage
- Appropriate tools selected to clean bricks
- Bricks cleaned to standards required for re-use
- Bricks stacked/loaded safely (on pallets, mocked joints)
- Correct method used to carry out work safely
- Working area kept clear of debris

Notes to Employers

Employers are recommended to use their discretion regarding this activity as in the majority of cases it is unlikely that operatives will be required to carry out this activity.

However, in the interests of sustainability and good environmental practice, it is an opportunity for all trainers to discuss the merits of recycling, reclaim and re-use.

ACTIVITY 6 – Cleaning Timber for Re-Use and Re-Sale

On completion of training the operative will be able to:

Explain and Demonstrate

- (L) Types of personal protective equipment appropriate to this operation
- (L) Method of selecting and sorting out timber in salvageable lengths and sizes
- (L) How to remove nails and other attached fittings
- (L) Method used for measuring and cutting timber into required lengths with handsaw
- (L) Procedure for disposal of unsalvageable timber
- (L) How to stack clean timber for collection
- (L) Identification of common defects in timber, such as woodworm, dry rot, wet rot etc.
- (L) How to recognise common timber elements and types of wood with salvageable value
- (L) Identification of different sections and sizes
- (L) How to use handsaws correctly
- (T) How to use chainsaws correctly
- (T) Method used for measuring and cutting timber into required lengths with chain-saw
- (T) Identifying and selecting a suitable area for burning and disposal of diseased materials

Industrial Standards

- Correct protective clothing and equipment worn by operative
- Timber correctly selected and sorted into salvageable lengths and sizes
- Timber cut into required lengths using handsaw (L) chain-saw (T)
- Timber stored and stacked correctly, cleaned and de-nailed where necessary
- Timber protected where necessary (sheeted over)
- Common defects identified without error
- Unsalvageable timber disposed of correctly

Notes to Employers

Employers may wish to advise operatives that de-nailing of timber materials is not as common as it once was. Outlining the various commercial outlets now available for timber materials will assist the operative to understand modern methods of extraction particularly where timber is chipped and metals are removed by overband magnets etc.

However, in the interests of sustainability and good environmental practice, it is an opportunity for all trainers to discuss the merits of recycling, reclaim and re-use.

ACTIVITY 7 – Setting Up and Using a Pneumatic Drill/Breaker

On completion of training the operative will be able to:

Explain and Demonstrate

- (L) Types of personal protective equipment appropriate to this operation
- (L) Method of setting up compressor and carrying out normal checks prior to starting (oil, fuel and water)
- (L) How to select, connect and use pneumatic drill/breaker in a safe and competent manner
- (L) Method of carrying out operator maintenance on compressor and pneumatic drill
- (L) Correct method for checking and connecting hoses and fitting safety nooses
- (L) Procedure for selecting a suitable position for compressor for safe working
- (L) Reasons for positioning and securing a compressor on site
- (L) Importance of checking and routing hoses on site to avoid damage and pressure drop
- (L) Need to carry out routine operational and maintenance checks
- (L) Correct procedure for starting compressor
- (L) Correct procedure for stopping compressor
- (L) Correct procedure for reporting defects
- (L) Precautions necessary to prevent personal injury to operative or others while operating pneumatic equipment
- (L) Selection of correct tools for drilling or breaking
- (L) Procedure for shutting down compressor on completion of work
- (T) Importance of ensuring the capabilities and limitations of pneumatic equipment are not exceeded
- (T) Identification of the problems associated with use of pneumatic tools/equipment (i.e. noise / vibration / icing)

Industrial Standards

Correct size of equipment selected for type of job

Machinery fuel/oil levels checked and filled as required

Parts lubricated as required

Air lines fitted correctly to compressor and pneumatic equipment, clear of potential damage

ACTIVITY 7 – Setting Up and Using a Pneumatic Drill/Breaker (cont'd)

Industrial Standards (cont'd)

- Air lines fitted with anti-whip cords at each joint
- All valves to be turned off and triggers free before starting compressor
- Correct protective clothing worn
- Work carried out in a safe manner
- All tools and equipment cleaned satisfactory before storing
- Suitable and adequate training for use of equipment
- Suitable and adequate maintenance / reporting regime

Notes to Employers

Employers are to instruct operatives in the importance of reducing the effects of 'Hand Arm Vibration Syndrome' commonly referred to as 'vibration white finger', and the necessity for safe working systems that reduce time spent at station. The Control of Vibration at Work Regulations 2005 also requires that provision of heated handles and ultimately, the substitution of hand working for mechanical plant etc.

An overview of the requirements to use drilling techniques for the placement of cutting charges in concrete structures during the pre-weakening and 'blow down' sequences will be beneficial to the operative.

ACTIVITY 8 – Erecting and Dismantling Screens and Dust Sheets

On completion of training the operative will be able to:

Explain and Demonstrate

- (L) Types of personal protective equipment appropriate to this operation
- (L) Method used to rig and secure monaflex sheeting and debris netting to scaffolds
- (L) Method used to rig and secure monaflex and debris netting to appropriate structures
- (L) How to renew defective lashings and metal eyelets, and other appropriate repairs
- (L) Purpose of obtaining authority to proceed and to establish the extent and position of sheets
- (L) How to rig monaflex and debris netting using a safe and correct method of work
- (L) How to tie monaflex and debris netting securing ropes with appropriate knots, or hitch
- (L) How to un-rig and store monaflex and debris netting
- (L) Importance of complying with the appropriate construction regulations
- (T) All the above, from above head height, upwards
- (T) How to establish if scaffolds and structures have been designed to be sheeted with sufficient ties to structure
- (T) Identification of the capabilities and limitations of monaflex and debris netting on scaffolds especially during extreme weather conditions

Industrial Standards

- Authority obtained to sheet structure/scaffolds
- Extent and position of sheeting clarified to requirements
- Correct type of monaflex and debris netting used as required
- Sheeting rigged and secured correctly (appropriate knots, lashings etc.)
- Defective metal eyelets and lashings renewed as directed
- Correct method of work carried out by operative
- Sheeting removed, folded and stored correctly
- Correct personal protective equipment identified and worn by operative

Notes to Employers

It should be established that where ever practically possible the erection of any sheeting to a scaffold would be by a competent scaffold operative and that the structure must be specifically designed to carry said sheeting.

ACTIVITY 9 – Disposing of Waste Arisings

On completion of training the operative will be able to:

Explain and Demonstrate

- (L) Types of personal protective equipment appropriate to this operation
- (L) The identification of safe access and egress
- (L) Evaluation of survey / inspection data of buildings or structures prior to entry
- (L) How to identify suspected hazardous material
- (L) How to evaluate and handle hazardous / contaminated materials
- (L) Method of sorting material into appropriate quarantine areas or piles for disposal
- (L) Procedure for carrying out the burning on site of unwanted material, where permissible
- (L) Use of mechanical aids / plant to facilitate the removal of arisings from structures
- (L) Method of loading skips/lorries
- (L) Identification and separation of salvageable and disposable material
- (L) How to identify materials such as Hazardous/Non-Hazardous Waste and recyclable materials for segregation into their respective waste streams
- (L) Importance of complying with The Environmental Protection (Duty of Care) Act 1990, Part 3 statutory nuisance, for the burning on site of unwanted material
- (L) Method of identifying situations when spraying is essential to reduce dust levels
- (L) Procedure for carrying out removal of waste arisings from the site; using skips etc. and lorries
- (T) How to identify and select a suitable area for the burning and disposal of material

Industrial Standards

- Correct protective clothing worn by operative
- Salvageable components identified without error
- Disposable components identified without error
- Waste material sprayed (if necessary) to control dust
- Materials and components identified without error
- Hazardous or suspect materials identified/location and line manager informed
- Compliance with the Hazardous Waste Regulations 2005
- Registration of site to the Environment Agency prior to removal of any Hazardous Waste

Notes to Employers

Refer to Activities 3 and 5 in particular

ACTIVITY 10 – Stripping Structure of Salvageable Fittings and Materials

On completion of training the operative will be able to:

Explain and Demonstrate

- (L) Method of confirming all services isolated and removed
- (L) Types of personal protective equipment appropriate to this operation
- (L) How to identify suspected hazardous material
- (L) Method of disconnecting and removing fittings/materials using appropriate hand tools
- (L) Method of identifying retained live services
- (L) Method of handling, transporting and storing fittings
- (L) Purpose of identifying materials that may be hazardous
- (L) Reasons for selecting the correct hand tool for the type of fitting being removed
- (L) Identification of materials and fittings with a high re-use, reclaim, recycling and scrap value
- (L) Reasons for carefully removing fittings and materials to avoid damage; fittings and materials to include: light fittings, gas and electrical fires, kitchen units, baths and sinks, hardwood fittings, gas/water heaters, stained glass windows, decorative timber and plaster mouldings, fireplaces, decorative and hand-made tiles, York stone, parquet floors etc
- (L) Procedure for lifting fittings and materials correctly (manually and mechanically)
- (L) Importance of stacking and storing fittings and materials
- (L) Procedure for loading materials onto transport

Industrial Standards

Confirm given information showing all non-essential services switched off and removed without error

Any remaining live services made visible on site and identified

Appropriate safety equipment worn by operative

Correct tools and method used for component removal

Salvageable components removed safely with no danger to operative, other persons on site or to public

Hazardous or suspect materials identified/location and line manager informed

ACTIVITY 10 – Stripping Structure of Salvageable Fittings and Materials (cont'd)

Industrial Standards (cont'd)

Materials and components identified without error

Fittings/materials removed carefully without damage

Fittings/materials stacked/stored/loaded onto transport correctly

Good Environmental practice applied

Hazardous wastes disposed of as per statutory requirements

Notes to Employers

As for all other Activities listed, the employer should emphasise the importance of survey / inspection findings prior to allowing access to the areas. It is to be assumed, and the employer / trainer may make the point, that induction and methodology have been addressed.

In terms of good environmental practice, it is advisable that the requirements of sustainability be emphasised i.e., maximum recycling, reclaim and re-use of all materials from the demolition site.

ACTIVITY 11 – Stripping of Non Salvageable Materials (Soft Strip)

On completion of the training the operative will be able to;

- (L) Identify material unsuitable for recycling and reuse
 - (L) Use appropriate hand tools for extraction
 - (L) Remove materials and debris from the work place for stacking or loading into suitable waste receptacles
 - (L) Identification of various products and materials for segregation and processing
 - (L) Work effectively and safely as a team member
 - (L) Assist in the process of machine stripping by directing the operator
 - (L) Lift and handle materials using good lifting techniques
 - (L) Evaluate safe working practices to eliminate or reduce risk
 - (L) Recognise an unsafe situation and advise his supervisor and others
 - (T) Operate a chain saw safely and effectively to remove components
 - (T) Take out load and non load bearing structures from within the work areas
 - (T) Advise other operatives and clients team of the presence of hazardous materials or products and determine the correct course of action
- (T) Take control of all soft strip operations in the absence of his supervisor

Industrial Standards

Materials and components identified and removed

Correct Tools used and stored away on completion

Hazardous waste identified and disposed of as per statutory requirements

Recycling of processed materials completed to environmental standards

Waste materials handled and disposed of safely and correctly

Company policy on waste and materials handling complied with

Notes to Employers

It is important to emphasise that there are many different modes of soft strip depending on the type of structure to be demolished. The use of mechanical plant is widespread particularly when taking off roof structures that will reduce the need for men working at height. Mulching of the mixed timber materials helps to reduce bulking in the containers and Lorries.

ACTIVITY 12 – Setting Up and Using Chain Saw

On completion of training the operative will be able to:

Explain and Demonstrate

- (L) Types of personal protective equipment appropriate to this operation
- (L) Precautions necessary to prevent personal injury to operative or others while operating a chain-saw (personal protective equipment, safe working position, exclusion zone to others)
- (L) Method of carrying out a safety check on equipment and location prior to starting/use
- (L) Method of operating chain-saw in a safe and competent manner
- (L) How to carry out operator maintenance on chain-saw
- (T) How to carry out the correct procedure for freeing a jammed saw
- (L) Procedure for shutting down chain-saw on completion of work
- (L) How to thoroughly check a chain-saw to establish if safe to use and that chain brake is fully operational
- (L) Method of identifying defects in chain-saws before and during use
- (L) Procedure for operating a chain-saw in various working positions on site to cut and release timber sections
- (T) Identification of the capabilities and limitation of the chain-saw
- (T) Procedure for complying with Provision & Use of Work Equipment Regulations 2002 (PUWER)
- (L) Importance of carrying out the correct procedure for reporting defects

Industrial Standards

- Correct protective clothing worn by operative
- Cutting carried out in a safe manner
- Operator maintenance and safety checks carried out correctly
- Correct procedure used to free a jammed saw (wood or plastic wedges available)
- Correct starting procedure carried out
- Correct shutting down procedure carried out
- Work area clear and free of obstruction and other personnel

Notes to Employers

Employers must ensure that all operatives have knowledge of the requirements of PUWER as well as compliance with the Control of Vibration at Work Regulations 2005

ACTIVITY 13 – Setting Up and Using Mechanical Cutting Tools Including Fitting Abrasive Wheels/Discs

On completion of training the operative will be able to:

Explain and Demonstrate

- (L) Types of personal protective equipment appropriate to this operation
- (L) Method of selecting and setting up mechanical tool with correct cutting disc for the material to be cut
- (L) How to carry out physical safety check of mechanical tools
- (L) How to carry out operator maintenance on mechanical tools
- (L) How to cut different materials with correct types of cutting disc in a safe and competent manner
- (L) How to identify type of material to be cut
- (L) How to set up equipment for safe use and connect to a suitable power source: Pneumatic, electric
- (L) Method of checking self-propelled equipment before use (e.g. petrol/diesel driven)
- (T) Importance of fitting and mounting wheel/disc to comply with the Abrasive Provision & Use of Work Equipment Regulations 2002
- (T) Need to use abrasive cutting machines safely, and comply with the capabilities and limitation of cutting discs
- (T) How to take the necessary precautions to prevent personal injury to operative and others while operating tools with cutting discs
- (L) Importance of carrying out the correct procedure for reporting defects in equipment

Industrial Standards

- Correct type of disc selected and correctly fitted
- Frayed/damaged leads reported
- Machinery fuel/oil levels checked and filled as required
- Parts lubricated as required
- Electrical items correctly fitted to transformer and power supply
- Guards adjusted for safe use
- All cables positioned to prevent accident and away from wet areas
- Correct protective clothing worn
- Cutting carried out in safe manner

Notes to Employers

Employers must emphasise placing of exclusion zones around work areas and provision of suitable and adequate fire fighting facilities

ACTIVITY 14 – Cutting Up Metal with Fuel/Gas Cutting Equipment

On completion of training the operative will be able to:

Explain and Demonstrate

- (L) Types of personal protective equipment appropriate to this operation
- (L) Method of selecting and assembling oxygen/fuel gas-cutting equipment required for 'hot cutting'
- (L) Method used to carry out safety checks on cutting equipment before use
- (L) Method used to carry out safety checks on oxygen and fuel cylinders before use
- (L) How to set the correct operating pressures on the oxygen and fuel gas regulators
- (L) The correct and safe lighting and shutting down procedures for the cutting torch
- (L) Method of carrying out the correct cutting technique for a burner on steel and iron of varying thickness
- (L) How to carry out operator maintenance on oxygen/fuel gas-cutting equipment
- (L) How to set up and operate the oxygen/fuel gas-cutting equipment in accordance with laid-down procedures the British Compressed Gases Association (BCGA) Codes of Practice
- (L) How to identify and apply safety precautions to eliminate or reduce hazards associated with oxygen and fuel gases
- (T) The identification of hazards associated with the cutting process
- (T) How to handle and store oxygen and fuel gas cylinders safely (Ref. HSE Health and Safety at Work Booklet No 50 – The storage and use of LPG on construction sites - The Pressure Systems & Transportable Gas Containers Regulations 1989)
- (L) Importance of competently selecting the correct nozzle size for the metal to be cut and the correct pressure required for oxygen and fuel gas
- (T) How to comply with the Control of Lead at Work Regulations and other relevant legislation

Industrial Standards

- Appropriate safety equipment worn by operative
- All safety measures enforced when using equipment
- Equipment assembled and dismantled safely and correctly
- Correct lighting, operating and shutting down procedures used
- All equipment cleaned, maintained and stored correctly
- Cutting carried out in a safe manner

Notes to Employers

Employers are to advise operatives of the statutory requirements for transporting of fuel and oxygen containers by road. i.e. 'ADR and transport units'

Employers are encouraged to give advice on hazards associated with cutting steelwork coated with paints containing isocyanides. i.e. 'two pack paints'

ACTIVITY 15 – Carrying out Banksman / Traffic Marshall Duties

On completion of training the operative will be able to:

Explain and Demonstrate

- (L) Types of personal protective equipment appropriate to this operation
- (L) Identify and erect warning, information and company signs to gates and boundaries
- (L) Understanding of the need for induction and instruction to all site users
- (L) How to protect members of the public and the workforce from site operations
- (L) Methods used to segregate pedestrians from plant and vehicle movements
- (L) The international hand signals to vehicle and plant operators and how to use a two way radio efficiently and effectively
- (L) How to comply with the company's traffic management plan and liaise with the site supervisor / manager
- (L) How to identify hazardous situations or potential matters for concern
- (T) Method of identifying and selecting suitable/sufficient access / egress and working areas to be retained within demolition area
- (T) How to produce a traffic management plan and implement its use
- (T) How to identify potential weaknesses in the plan or other matters arising, i.e. other trades working in close proximity
- (T) Site Induction, toolbox talks and changes to scheduled arrangements as necessary
- (T) The reporting of near misses, accidents and incidents and liaison with senior management and the client team as required
- (T) Supervisory capability in the absence of the site supervisor or manager

Industrial Standards

- Correct protective clothing worn by operatives
- Traffic Management Plans in force (verbal or written)
- Adequate warning and information signs posted
- Site boundaries and access points suitably protected and manned as required
- Record keeping complying with legislation and company rules
- Work carried out in a safe manner
- Plant and vehicles in good condition and maintained

Notes to Employers:

Traffic Management is one of the top five site safety issues!!

ACTIVITY 16 – Basic Requirements for Setting Up Site

On completion of training the operative will be able to:

Explain and Demonstrate

- (L) Types of personal protective equipment required by regulations
- (L) Types of fencing normally used on demolition sites
- (L) Methods of erecting site fencing (proprietary and hoarding)
- (L) Appropriate signs required at site access and perimeter fences
- (L) The requirements relating to welfare provisions in accordance with Workplace Regulations
- (L) The different types of services required (power/water/waste disposal)
- (L) The means of safe access and egress to a demolition site
- (L) The method of controlling and segregating site traffic (pedestrian and vehicles/plant)
- (L) How to identify the suitable positioning of fire points and first aid points
- (L) Emergency procedures in case of fire or accident on site
- (L) How to identify nominated personnel on site (first aider/ foreman/supervisor, safety officer/safety rep)
- (T) The requirements of a site safety plan
- (T) The contents of a method statement
- (T) The contents of a Risk Assessment and implementation of control measures

Industrial Standards

- Correct protective clothing worn by operative
- Type of fence selected correctly
- Fencing erected safely and securely
- Correct signs identified and positioned correctly
- Welfare provisions comply with current regulations
- Types of services identified correctly
- Safe access and egress identified without error
- Site traffic controlled safely
- Fire points and first aid points located correctly

ACTIVITY 16 –Basic Requirements for Setting Up Site (cont'd)

Industrial Standards (cont'd)

Emergency procedure outlined without error

Nominated personnel identified without error

Site safety plan details in accordance with CDM Regulations

Method statement contents in accordance with BS 6187: and HSE guidelines

Notes to Employers

Employers are to remind operatives of the need to comply with all current and relevant statutory legislation, codes of practice and guidance.

Employers should be mindful that when bringing site welfare facilities to site they must be adequate and suitable for the site conditions and project duration, i.e. a 'porta loo' is sufficient for a site where works are to be completed within a week or so etc. However, for periods greater than this, flush toilets should be provided etc.

ACTIVITY 17 –Working at Height

On completion of training the operative will be able to:

Explain and Demonstrate

- (L) Types of personal protective equipment appropriate to this operation
- (L) The use of safe access equipment including tower scaffolding, staging, ladders and mobile elevated work platforms
- (L) How to hoist and raise materials to roof level and lower off to the ground
- (L) Importance of taking the necessary safety precautions (i.e. wear safety harness) whilst working at height
- (L) How to set up and use running lines and inertia reels for access along roofs and other places of work at height
- (T) The procedure for checking / inspection and recording of all work equipment in accordance with the Provision and Use of Work Equipment Regulations 2002 and the Lifting Operations Lifting Equipment regulations 1998
- (T) The planning and assessment of works to eliminate where practical work at height
- (T) Safe working procedures in accordance with the Work at Height Regulations 2005
- (T) The selection of all work equipment for working at height and the requirement for training, instruction and supervision in the absence of the site supervisor / manager

Industrial Standards

- Correct personal protective equipment identified and worn by operative
- Implementation of statutory regulations
- Selection of suitable and safe access equipment
- Maintenance and record keeping
- Application of safe working systems
- Planning / organisation of works and elimination of work at height as appropriate

Notes to Employers

Employers are advised to stress the importance of the elimination of all work at height, where reasonably practicable. Access equipment should be carefully selected to ensure that the use of ladders and staging is reduced to the lowest expectancy.

Where ever practical, remote demolition methods are preferred to hand reduction

ACTIVITY 18 – Opening Up Buildings/Structures by Removal of Non-Load Bearing Walls/Partitions

On completion of training the operative will be able to:

Explain and Demonstrate

- (L) Types of personal protective equipment appropriate to this operation
- (L) How to identify hazardous materials or situations
- (L) Method of demolishing non-load bearing walls/partitions using appropriate hand tools
- (L) Method of handling and lowering materials
- (L) Evaluation of potential for re-use and reclaim of materials
- (L) How to dispose of debris arising from demolition
- (L) How to select and use the appropriate hand tools correctly and safely
- (L) How to maintain all types of hand tools, i.e. electric, air, water, diesel powered etc
- (T) The method statement and risk assessment process and identification of the need for amendment
- (T) Procedure for identifying non-load bearing walls/partitions
- (T) Procedure used to demolish non-load bearing walls/partitions using a safe and correct method of work including:
 - Stud, lath and plaster, and plasterboard
 - Brick, block or clay pot
 - System partition and cladding
- (T) Importance of preventing overloading of floors and the working arrangement to remove materials from upper floor levels to the ground
- (T) When to substitute hand working for machine working in the interests of safety and or efficiency

Industrial Standards

- Confirm given information showing all services switched off and removed without error
- Any remaining live services visible on site identified
- Appropriate safety equipment worn by operative
- Correct tools and method used for component removal
- Salvageable components removed safely with no danger to operative, other persons on site or to public
- Correct loading of floor slabs or timber floors with materials/components
- Stability of building unimpaired during component removal

ACTIVITY 18 – Opening up Buildings/Structures by Removal of Non-Load Bearing Walls/Partitions (cont'd)

Industrial Standards (cont'd)

Materials sprayed (if necessary) to control dust

Hazardous or suspect materials identified/location and line manager informed

Materials and components identified without error

Materials loaded in correct waste containers following processing

Safe working with all hand held power tools

Safe working in close proximity to mechanical plant and heavy vehicles

Notes to Employers

Employers must emphasise the importance of pre-start survey results in the identification of hazardous materials contained within or forming partitions etc. Equally, it is important to identify the types of structural elements and waste materials to be removed from the structure / building prior to its removal in order to assess and evaluate the weights and volumes for suitable selection of waste containers etc.

ACTIVITY 19 – Dismantling Roofs Constructed with Timber and Tiles/Slates

On completion of training the operative will be able to:

Explain and Demonstrate

- (L) Types of personal protective equipment appropriate to this operation
- (L) Safe use and maintenance of access equipment
- (L) Method of removing roof ridge tiles
- (L) Method of removing tiles/slates
- (L) Procedure for lowering tiles/slates to ground level
- (L) How to remove battens/rafters with a mattock/pinchbar and lower to ground level
- (L) Method used to remove roof purlin's and lower to ground level
- (L) Procedure for punching through ceilings
- (L) Method of removing ceiling joists with a mattock and lowering to ground level
- (L) Procedure for turning nails so that they are not a hazard
- (T) How to gain safe access to a roof via scaffold, roof ladder/crawling board MEWP or Tower Scaffold, use of safety harness. Importance of having a full understanding of the hazards involved when working on a roof
- (T) Identification of situations requiring roof edge protection
- (T) Correct procedure for completely stripping a roof (from the removal of the roof ridge tiles to the ceiling joists)
- (T) Reasons for stacking tiles/slates safely on a roof
- (T) Applying the correct terminology associated with the various structural elements
- (T) Understanding of the requirement of **PUWER, LOLER** and the Work at Height Regulations

Industrial Standards

Any remaining live services visible on site identified

Appropriate safety equipment worn by operative

Correct tools and method used for component removal

Salvageable components removed safely with no danger to operative, other persons on site or to public

Correct loading of floor slabs or timber floors with materials/components

Stability of building unimpaired during component removal

Materials sprayed (if necessary) to control dust

Components marked up and recorded without error

ACTIVITY 19 – Dismantling Roofs Constructed with Timber and Tiles/Slates (cont'd)

Industrial Standards (cont'd)

Components protected where necessary

Components stored and stacked correctly, cleaned and de-nailed where necessary

Materials and components identified without error

Inspection carried out thoroughly in all areas

Hazards and conditions identified without omission

Notes to Employers

Although sustainable development initiatives require consideration to maximise recycling, reclaim and re-use of materials, employers must also emphasise the importance of applying best practice to minimise work at height.

ACTIVITY 20 –Demolishing Reinforced Concrete Roofs and Suspended Floors

On completion of training the operative will be able to:

Explain and Demonstrate

- (T) Types of personal protective equipment appropriate to this operation
- (T) Method of drilling holes to identify the direction and type of the main reinforcement
- (T) How to identify a safe working platform
- (T) Method used to break up the reinforced concrete parallel to the main reinforcement working from a safe platform
- (T) Procedure for clearing debris as work proceeds
- (T) The basic differences between mass, reinforced, post tensioned and pre-stressed concrete construction
- (T) How to identify the bearing points of suspended slabs or beams
- (T) How to identify the need for temporary supports during activities
- (T) Importance of positioning compressor and equipment for safe working
- (T) How to gain safe access to place of work via access scaffold, ladder, or MEWP. Importance of having a full understanding of the hazards involved and precautions required when undertaking this type of work
- (T) Reasons for drilling sufficient holes to identify direction and type of reinforcement
- (T) Importance of following standard procedures for demolishing reinforced concrete roofs or floors
- (T) Reasons for preventing the debris creating a hazardous overloading situation and how to apply best practice for the even spreading of loads

Industrial Standards

Confirm given information showing all non-essential services switched off and removed without error and any remaining live services made visible on site and identified

Appropriate safety equipment worn by operative

Correct tools and method used for component removal

Salvageable components removed safely with no danger to operative, other persons on site or to public

Identification of support mechanisms to underside of slabs or beams etc

Correct loading of floor slabs with materials/components

Stability of building unimpaired during component removal

Materials sprayed (if necessary) to control dust

Hazardous or suspect materials identified/location and appropriate action taken

ACTIVITY 20 – Demolishing Reinforced Concrete Roofs and Suspended Floors (cont'd)

Industrial Standards (cont'd)

- Materials and components identified without error
- Correct stripping sequence determined
- Inspection carried out thoroughly in all areas
- Position of visible reinforcement identified without error
- Support system correctly erected
- Support system strong enough to carry load being supported
- All props/jacks checked without omission

Notes to Employers

Employers must concentrate on the importance of identifying the construction of suspended structures, the various modes and routes of information, and the engineering principles required to determine the correct method of demolition. It is of importance that the operative has a good understanding of how a reinforced and or suspended structure is constructed and placed into position.

ACTIVITY 21 – Demolishing by Hand Buildings and Structures Constructed with Masonry, Concrete and Timber

On completion of training the operative will be able to:

Explain and Demonstrate

- (L) Types of personal protective equipment appropriate to this operation
- (L) Method of providing protection against flying debris
- (L) Method used to demolish masonry; concrete and hard brickwork with pneumatic equipment and/or appropriate hand tools and clear down
- (L) How to remove/dismantle timber joists and window frames with appropriate hand tools and lower to ground level
- (L) Procedure for spraying water to control dust
- (L) Method of rigging and securing dust screens and sheets
- (L) How to set up and use the following mechanical tools correctly and safely:
 - Pneumatic equipment
 - Hydraulic equipment
 - Electrical equipment
 - Chain saw / Abrasive disc cutter / reciprocating saw
- (T) Procedure for establishing the type of structure/materials to be demolished and selecting appropriate hand tools and/or mechanical equipment
- (T) How to carry out the correct method of work for the demolition of structures constructed of brickwork, masonry, concrete and timber
- (T) Application of the correct terminology associated with the various structural elements
- (T) How to gain safe access to place of work via access scaffold, ladder and working platforms. Importance of having a full understanding of the hazards involved and precautions required when undertaking this type of work
- (T) Carrying out the correct method of work for constructing temporary supports to structures and the reasons why

Industrial Standards

Confirm given information showing all non-essential services switched off and removed without error

Any remaining live services made visible on site and identified

Appropriate safety equipment worn by operative

Correct tools and method used for component removal

ACTIVITY 21 – Demolishing by Hand Buildings and Structures Constructed with Masonry, Concrete and Timber (cont'd)

Industrial Standards (cont'd)

Salvageable components removed safely with no danger to operative, other persons on site or to public

Correct loading of floor slabs with materials/components

Stability of building unimpaired during component removal

Materials sprayed (if necessary) to control dust

Hazardous or suspect materials identified/location and appropriate action taken

Materials and components identified without error

Correct stripping sequence determined

Inspection carried out thoroughly in all areas

Support system correctly designed and erected

All props/jacks checked without omission

Notes to Employers

Employers to be advised of the continual advancement of technology and methodology available to the demolition industry. Micro and mini rigs demolition fitted with attachments can easily and readily access structures to minimise hand working and reduce manual handling risks. Hand held hydraulic shears may replace the need to employ breakers to reduce masonry etc thereby reducing noise, vibration and dust levels.

ACTIVITY 22 – Stripping Fragile Roof Coverings and Cladding

On completion of training the operative will be able to:

Explain and Demonstrate

- (T) Types of personal protective equipment appropriate to this operation
- (T) How to select, procure, erect and secure access equipment
- (T) Method of rigging and using roof ladders/crawling boards as a working platform
- (T) How to remove roofing sheets / cladding with appropriate hand tools
- (T) Lowering roofing sheets / cladding to ground level
- (T) Method of using appropriate hand tools in a safe and correct manner
- (T) Procedure for carrying out a thorough inspection of roof structure before gaining access
- (T) How to gain safe access to a fragile roof via access scaffold, mobile elevated work platform, ladder, and use of safety harness, running lines and inertia reels. Importance of having a full understanding of the hazards involved when accessing or working on a fragile roof
- (T) Purpose of carrying out the correct procedure for the removal and lowering of roofing sheets / cladding
- (T) Application of the correct terminology associated with various structural elements

Industrial Standards

Inspection carried out thoroughly in all areas

Mode of safe access

Hazards and conditions identified without omission

Materials and components identified without error

Correct tools and method used for component removal

Correct stripping sequence determined

Inspection carried out thoroughly in all areas

Equipment hoisted to roofs safely

Safety harness worn during erection and dismantling

All equipment maintained, inspected, erected correctly and safe to use

Correct personal protective equipment identified and worn by operative

Notes to Employer

Employers to refer to all current and relevant statutory conditions imposed on operatives working at height

ACTIVITY 23 – Dismantling Steel Frame Structures

On completion of training the operative will be able to:

Explain and Demonstrate

- (T) Types of personal protective equipment appropriate to this operation
- (T) How to visually inspect, and identify materials and condition of structure
- (T) Purpose of carrying out a thorough inspection of structure before dismantling commences
- (T) Methods of gaining access to carry out removal of steel elements in a safe and correct manner (ladders, scaffolding, scaffold towers, MEWP and Man Riders))
- (T) How to remove individual steel components including roof trusses with appropriate hand tools, cutting equipment (i.e. abrasive disc cutters/oxygen/fuel gas-cutting equipment etc)
- (T) How to manage the process of truss / purling and bracing removal using remote mechanical methods
- (T) How to carry out the correct procedure and signalling for the lowering of individual steel components (Correct slinging, supporting the load during removal) in compliance with **LOLER 1998**
- (T) The application of the correct terminology associated with various parts of the structure
- (T) The importance of having a full understanding of the hazards involved and precautions required when undertaking this type of work
- (T) Types of personal protective equipment that should be worn during the cutting and removal of steelwork
- (T) How to establish exclusion zones around and below the structure
- (T) The requirement for safe storage of fuel and oxygen gases
- (T) Methods of stacking and storing components ready for transportation
- (T) Purpose of removing attachments from steelwork (angle brackets, plates etc.)
- (T) Method of dismantling lowered steelwork and in particular roof trusses at ground level
- (T) The selection and use of mechanical processes to substitute hand working

Industrial Standards

Correct protective clothing and equipment worn by operative

Structure thoroughly inspected before work commences

Access equipment correctly placed in position before use

Appropriate tools selected to carry out the work

All steelwork removed from structure with no danger to operative or other persons on site

ACTIVITY 23 – Dismantling Steel Frame Structures (cont'd)

Industrial Standards (cont'd)

Steel components lowered and stacked safely and correctly

All lifting operations and mechanical work processes planned in compliance with **LOLER 1998** and **PUWER 2002**

Notes to Employers

With the exception of dismantling to reclaim materials and or structures, the employer should encourage the reduction of working at height and the application of remote mechanical operations to reduce the structure.

ACTIVITY 24 – Building Construction Techniques and Safe Demolition Procedures

On completion of training the operative will be able to:

Explain and Demonstrate

- (T) How to identify method of construction of various buildings and structures and their condition
- (T) Method used to identify and establish how key elements of construction affect sequence of demolition activities
- (T) How to establish a safe method to demolish buildings and structures
- (T) Procedure used to identify that scaffolds, working platforms and access are adequate, safe, and comply with statutory regulations
- (T) How to direct labouring and mattockman activities
- (T) Identification of the basic construction details of traditional industrial and commercial buildings and structures
- (T) How to identify important structural elements that affect stability
- (T) How to recognise the need for temporary support
- (T) Procedures for demolishing buildings, structures and elements to comply with recommendations of BS 6187: Code of Practice for Demolition
- (T) Identification of the limit of labouring and mattockman activities
- (T) Importance of the relevant Construction Regulations regarding scaffolding access and working platforms
- (T) The principal components of safety policies, safety plans, method statements, risk assessments and COSHH Regulations

Industrial Standards

Method of building construction identified correctly

Correct procedure followed to establish that scaffolds, working platforms, and access are adequate, safe and comply with regulations

Labouring and mattockman activities identified correctly

The need for temporary support to structures identified correctly

Correct procedure for demolishing buildings carried out without error

Notes to Employers

Employers are to be aware that unless operatives have a basic grasp of structural construction types or techniques they cannot effectively or correctly identify safe dismantling / demolition methodology.

PART C

FURTHER ACTIVITIES

Completing these essential activities will enhance the knowledge of operatives wishing to progress to higher levels including supervisory and management who have completed Part A and Part B with the range of competence requirements for a demolition operative

ACTIVITY 1 – Erect and Dismantle Access Equipment

ACTIVITY 1.1 – Erecting and Using Ladders

Before the operative is submitted for either Industry or NVQ Assessment they should be able to:

Explain and Demonstrate

Purpose and use of ladders

Types of ladder used in the construction industry

Types of material used for manufacturing ladders and name of the ladder's component parts

Reason for checking ladders prior to erecting and using including, Procedure for reporting defects in ladders

Importance of regulations related to ladders used for access and transportation of materials

Methods of handling, erecting and lowering ladders safely, working singly or in pairs

Importance of erecting ladders at correct working angle and the method used to establish the angle

Reasons for securing ladders at the top and bottom

Type of materials and components used for anchoring ladders at the top and bottom

Method of storing ladders safely

Methods of preventing general public use of ladders for access out of working hours

Appropriate statutory regulations and codes of practice

Terminology covering handling, erecting and using ladders

Industrial Standards

Ladders examined and checked to ensure that component parts are free from damage and defects

Damage and defects identified, reported and recorded without error

Ladders handled safely, working individually or in pairs

Ladders erected safely at the correct working angle (4:1) (75°) without error

Type of ladder selected suitable for use and of the correct length to comply with statutory regulations and codes of practice

Ladders fixed securely at top and bottom, extending above landing 1.05 m or 5 rungs

Ladders lowered safely and stored correctly after use

Notes to Employers

Employers are to emphasise the constraints on ladder use imposed by the Work at Height Regulations 2005

ACTIVITY 1.2 – Using Working Platforms (Access Scaffold or MEWP)

Before the operative is submitted for either Industry or NVQ Assessment they should be able to:

Explain and Demonstrate

The statutory regulations governing the use of working platforms for access and loading

Method of forming openings to working platforms for access and egress via ladders and for loading materials

Type of materials and components used for working platforms

Selection, procurement and use of mobile elevated work platforms

Importance of width for working platforms, including loading out with construction materials, and access

Methods and materials used to prevent materials/components falling from working platforms

Importance of areas used for stacking and storing materials/components in relation to the scaffold support system on the working platform

Importance of checking and determining ground condition prior to use of a MEWP

Importance of Risk Assessment to determine proximity hazards, i.e. overhead cables etc

Reasons for checking working platforms previously erected by others

Terminology used for working platforms

Industrial Standards

Width of working platforms satisfies the statutory regulations in respect of activity being undertaken

Height to minimum base ratio applied for work inside and outside regarding tower scaffolding

Working platform checked for damage and defects prior to use (scaffold boards, staging's, extending bridges, mechanical components)

Access provided to working areas is satisfactory and safe, and complies with regulations

Safety barriers are fixed securely and in correct position to prevent falls (persons and materials)

Loading is carried out in the correct positions provided by the support system, without overloading

Scaffold boards and staging's used for working platforms are suitable in thickness and length and fully supported at regulation centres without error

Working platform is free from overlapping boards/staging's and open areas

ACTIVITY 1.2 – Using Working Platforms (Access Scaffold or MEWP) Cont'd

Access and egress to/from working platforms is easy and safe at all levels with ladders secured at top and bottom

Ties to structure / building or outriggers to be employed on tower scaffolding that exceeds the minimum base to height ratio

Ties to structure to be double coupled clips at minimum intervals of 4 metres or less

Notes to Employers

Employers to outline Beaufort Scale conditions when using access towers. Emphasis must be given to ground conditions when erecting tower scaffolds and in particular when standing or moving mobile elevated work platforms

ACTIVITY 1.3 – Erecting Access Systems

Before the operative is submitted for either Industry or NVQ Assessment they should be able to:

Explain and Demonstrate

- Selection of components and fittings
- Methods of handling components and fittings
- Methods of aligning and securing components
- Raising components and fittings
- Positioning of ties
- Bracing and tying towers
- Lashing of ladders
- Handling and raising ladders
- Securing working platforms with handrails/toe-boards

Industrial Standards

- Components selected and handled correctly
- Components aligned and secured correctly
- Stability of access platforms ensured
- Ladders raised correctly and lashed securely
- All access platforms erected to current regulations
- Components must be in good condition with depressions in aluminium components of less than 5 mm (any damage should be reported immediately)

ACTIVITY 1.4 – Dismantling Access Systems

Before the operative is submitted for either Industry or NVQ Assessment they should be able to:

Explain and Demonstrate

- Sequence and method of dismantling
- Methods of lowering/handing down components
- Methods for stacking/storing components

Industrial Standards

- Components prepared correctly for dismantling
- Dismantled in correct sequence
- Components lowered and/or handed down correctly
- Components collected and stacked/stored correctly

Notes to Employers

Employers' should advise that any aluminium component, including ladders and tower scaffold sections, must be inspected for damage prior to returning to the yard or off hire. Any heavy deposits of cement etc or depressions noted in individual components of 5 mm or more must be brought to the attention of the management in order for that component to be taken out of use. (*Any damage should be reported immediately*) ACTIVITY 2 – Erect and Secure Temporary Supports to Structures

Before the operative is submitted for either Industry or NVQ Assessment they should be able to:

Explain and Demonstrate

How to identify the need for temporary supports during demolition

Liaison with structural / design engineer

How to identify which type of temporary support should be used

Method and materials used to construct temporary supports

Why it is necessary to use folding wedges in conjunction with props

How to position, secure and remove telescopic adjustable props, struts, tube, fittings, sole-plates, headboards, proprietary shores and jacks.

The need to check condition of props/jacks before use

How to identify the amount of load that props/jacks can support (reference to manufacturer's brochures)(reference to detailed design and calculations submitted by engineer)

Method used to tie/brace several props together using tube/fittings or system bracing

Industrial Standards

Props/struts fixed securely and in correct position

Correct type of prop/strut selected for type of support required

Condition of props/shores/jacks checked before use

Props vertical and at correct centres

Tube supports at correct height and attached to props with correct type of fittings

Bases of props/struts fixed securely and sole-plates/headboards correctly placed

Notes to Employers

Employers must broadly outline the various types of temporary support mechanisms. Emphasis must be placed on stringently following the specification requirements and the condition or constraints imposed on load bearing to structures, particularly where there will be a requirement to bring in mechanical plant as part of the demolition process

ACTIVITY 3 – Erect and Dismantle Plant (cranes & demolition rigs)

Before the operative is submitted for either Industry or NVQ Assessment they should be able to:

Explain and Demonstrate

The types of PPE and safety clothing / footwear necessary to ensure safe working

How to visually inspect, and identify components prior to assembling or de-assembling

The correct sequence of dismantling and erecting as specified within the safe system of work

Purpose of carrying out a thorough inspection of individual components, machine bases, upper superstructures, boom arms, boom sections and attachments before dismantling or erection commences

Methods of gaining access to carry out assembly or de-assembly of components in a safe and correct manner, i.e. scaffold towers, ladders, mobile elevated work platforms

How to remove and connect components with appropriate hand tools

How to carry out the correct procedure and signalling for the lowering and hoisting of components

Methods for prevention of damage to environment, surrounding structures

How to determine quantity of personnel required for different lifting situations

How to select type of crane to be used and appropriate lifting gear for job

In conjunction with
Crane coordinator and
appointed person

The application of the correct terminology associated with various parts of plant and equipment

The importance of having a full understanding of the hazards involved and precautions to take when undertaking this type of work

Selection and use of remote mechanical methods to de-assemble or assemble

Methods of stacking and storing components ready for transportation

Purpose of removing and fitting attachments from components

Method of ensuring all processes are complete and made safe prior to re-using

Industrial Standards

Correct protective clothing and equipment worn by operative

All plant and equipment thoroughly inspected before work commences

Access equipment correctly placed in position before use

Appropriate tools selected to carry out the work

Components removed from cranes and rigs with no danger to operative or other persons on site

ACTIVITY 3 – Erect and Dismantle Plant (cranes & demolition rigs) Cont'd

Components lowered and stacked safely and correctly

Components / cranes / rigs tested under no load conditions prior to full use

Lubrication of moving parts to be applied as per manufactures instructions

Removal and disposal of all hazardous wastes arising from de-assembly / assembly of components to be undertaken as per the statutory regulations and good practice

High pressure hydraulic hoses and valve taps must be made safe by de-pressuring and or disconnecting from main feed systems

'Wylie' radius cards to be fitted correctly to all cranes following adjustment of boom Lengths / sections

Notes to Employers

Employers may wish to reiterate previous comments on the use of mechanical methods, i.e. MEWP as opposed to ladders, where ever reasonably practical or possible for access above head height.

The use of cranes to assemble or de-assemble any plant or equipment must be undertaken in accordance to statutory conditions and best practice. All persons nominated to control such processes should be competent to undertake such operations.

ACTIVITY 4 – Locate Services

Before the operative is submitted for either Industry or NVQ Assessment they should be able to:

Explain and Demonstrate

Method used for locating services

How to use locating equipment and test meters (cable and pipe locators)

How and when to locate buried services using hand digging techniques

Methods adopted to confirm all services switched off or removed before work commences (including: electricity, water, gas, TV, telephone, sewerage, surface water)

The necessary action to take to inform the relevant service authority if unexpected live services are found

Methods used to mark position of services (warning notices, bunting etc.)

Statutory regulations relating to buried services (CDM, COSHH, HSE Guidance Notes, National Joint Utilities Group publications, Electricity Council and British Gas publications)

Correct procedures adopted for travelling of mobile plant and equipment under overhead 'Live' electrical services

Industrial Standards

Checks carried out with all public and private utilities and owners of property to ascertain if any services exist in the work area

Liaison with relevant service providers and or utility companies prior to travelling or imposing loads on or under 'live' service locations

Types of service identified without error

Position of service located accurately (markers and sketched drawings)

Position of service adequately marked (warning notices, bunting etc.)

Site Induction to be given prior to commencement (toolbox talks thereafter)

Notes to Employers

Service runs are not restricted to Gas or Electricity. Operatives should be made aware of all others, i.e. telecommunications, water, sewage, culverts etc.

It is also worth noting that work alongside or near to waterways and highways will need to be notified to the relevant owners or managers, i.e. British Waterways for canals etc, Local Authority for highways, Environment Agency for rivers etc

ACTIVITY 5 – Remove Waste Material and Substances

Before the operative is submitted for either Industry or NVQ Assessment they should be able to:

Explain and Demonstrate

The correct PPE and RPE including safety clothing and footwear

How to identify materials for sorting and segregation to determine controlled waste or hazardous waste

How to set up and process waste materials for recycling, reclamation and re-use

How and why you register a site, with the EA, containing hazardous materials or Substances

Why it is important to separate glass and gypsum from the finished hardcore

Method of removing, containing and wrapping any fragile sheet and sharp materials, asbestos cement products, glass and plastics

The reasons for wearing the correct protective clothing, respirators/masks while removing waste materials and substances

The statutory regulations relating to removing waste materials (Control of Pollution Act, Asbestos Regulations, Hazardous Waste Regulations, 'Duty of Care' Regulations, CDM and COSHH)

Types of tools and equipment used for removing, containing and wrapping materials

The different types of methods used for removing waste materials

Purpose of kinetic lifting procedures for personal safety

Industrial Standards

Correct protective clothing and equipment worn by operative

Correct procedure used to remove, contain, handle and wrap materials

Work carried out in a safe manner with no danger to operative, other people on site, or general public

Monitoring of all operations to be implemented to ensure a safe system of work is in place, including analytical testing as appropriate

Materials to be evaluated and handled according to good environmental practice

Notes to Employers

Employers must emphasise the importance of investigation and assessment of all suspected hazardous or contaminated materials / substances prior to allowing access or handling operations. Implementation and adherence to all statutory regulatory requirements is vital in ensuring a safe system of work is applied

ACTIVITY 6 – Carry Out Slings, Signalling, Inspecting and Controlling for Loading and Unloading Materials

Before the operative is submitted for either Industry or NVQ Assessment they must be able to:

Explain and Demonstrate

How to extract identification information, ratings and capacities from lifting gear markings

The type and purpose of information sources: (SWL charts, delivery notes, site plans, statutory forms, guidance notes, lift plans)

The purpose and importance of lifting gear markings

Method used to select lifting gear (slings, chains, eyes, spreader bars, shackles, special attachments)

Statutory Inspection / examination procedures and checks carried out when examining/inspecting lifting gear.

Reasons for considering working environment when selecting lifting equipment (Corrosive elements, temperature, wind conditions, explosive conditions)

Responsibilities with regard to statutory regulations (HASWA, COSHH, codes of practice BS 7121 parts 1-5 Standard for design and construction, BS 3010:1972, "Safe Use of Cranes" (Mobile, Tower, Derrick Cranes) BS 4942 - Short link chain for lifting purposes. BS 4278 - Eye bolts for lifting purposes. BS 6304 - Chain slings of welded construction. BS 3032 - Higher tensile steel shackles

How to control single lifts and multiple lifts using hand signals and radio signals

Methods used for recording, collating and processing information relating to lifting operations

Methods used to connect multiple slings to loads (two-legged, three-legged etc.)

Industrial Standards

Safe system of work carried out without error

Implementation and adherence to **LOLER 1998** and **PUWER 2002** statutory conditions

GS6, "Avoidance of Danger from Overhead Electric Lines".

PM46, "Wedge and Socket Anchorages for Wire Ropes".

GS39, "Training of Crane Drivers and Slings".

CIRIA SP 131 Crane stability on workplace an introductory guide 1996

PM20, "Cable Laid Slings and Grommets".

PM39, "Hydrogen Embrittlement of Grade T Chain".

PM54, "Lifting Gear Standards".

ACTIVITY 6 – Carry Out Slinging, Signalling, Inspecting and Controlling for Loading and Unloading Materials: Cont'd

Tools and equipment inspected thoroughly, damaged/unusable equipment replaced

Tools and equipment maintained as manufacturer's recommendations

Slings and lifting gear correctly selected and used

Correct crane/hand signals used

Materials and components moved safely

Correct slinging procedures carried out

Access to slinging/working area restricted to unauthorised personnel

Size, weight and position of maximum loads to be handled.

Safe working loads of crane in radius to be used.

Overhead electricity cables or other services.

Limitations of height or radius on workplace.

Permits or permission to oversail adjacent properties.

Ground bearing capacities, position of basements, underground services, etc.

Methods of work to avoid hazards during erection.

Safe installation of fuel storage facilities.

Safety of other contractors and public.

Notes to Employers

Employers can only verify competence of operatives following a detailed specific training course relevant to slinging, signalling and lift coordination activities

ACTIVITY 7 – Operating Plant and Machinery to Receive and Transport Loads

Before the operative is submitted for either Industry or NVQ Assessment they must be able to:

Explain and Demonstrate

The required PPE, safety clothing and footwear to operate plant and machinery safely

The characteristics and capabilities of the equipment being used

How and when to inspect plant and machinery and record and report any defects

How to carry out running checks on plant and equipment and to maintain in accordance with manufactures instructions and service schedules

Safe working principles and good practice in operating plant and machinery

Correct selection and use of tools and attachments for varying materials / structures

Observation when slewing, tracking, handling, disposing and processing of loads

How to recognise hazardous situations and conditions

Methods of communication between others

Awareness of the agreed safe method of work and appraisal of the need for change

The surrounding environmental conditions including personnel and other plant and machinery

Changes in the working environment including, weather, visibility and ground conditions

How to calculate and manage loads, radius, distances and exclusion zones

Understanding of the Statutory Regulations, Codes of Practice and Guidance notes governing safe operations in the workplace

Problems and conditions outside the responsibility of the job holder are referred to the authorised person

Industrial Standards

Adherence to all statutory conditions for safety in the workplace including **LOLER and PUWER Regulations**

Safe system of work carried out without error

Plant and machinery inspected thoroughly, damaged/unusable equipment replaced

Plant and machinery maintained as manufacturer's recommendations

Works carried out in accordance with company rules and condition of employment

Reporting of all injuries, diseases and dangerous occurrences' in adherence to **RIDDOR 94 and company conditions**

APPENDIX A

MAPPING to S/NVQ MODULES

PART A: ENABLING SKILLS AND KNOWLEDGE

- 1 Interpreting drawings/oral/written instructions
Unit VR 01 – VR 02
- 2 Planning, organising and co-ordinating own work
Unit VR 01 – VR 02 – VR 03
- 3 Adopting safe working practices
Unit VR 01 – VR 02 – VR 03
- 4 Identifying and maintaining hand tools
Unit VR 01 – VR 02 – VR 03
- 5 Using hand tools and working closely with mechanical plant
Unit VR 01 – VR 02 – VR 03 – VR 299

For operatives following the Demolition Operative 'B' route for plant operations optional units VR 385 & 388 may apply and additional units VR 250 to 404

- 6 Understanding and using legislative and company documentation
Unit VR 01 – VR 02 – VR 03

PART B: SPECIFIC WORK ACTIVITIES

- 1 Erecting and dismantling site fencing using proprietary systems
Unit VR 01 – VR 02 – VR 03 – VR 154

Where use of plant or machinery is required to carry of the works the following units may apply; Unit VR 299 – VR 387 – VR 388 – VR 390 – VR391 – VR 402

- 2 Sealing off exposed drains
Unit VR 01 – VR 02 – VR 03 – VR 154
- 3 Clearing out buildings
Unit VR 01 – VR 02 – VR 03 – VR 154

Where use of plant or machinery is required to carry of the works the following units

may apply; VR 299 – VR 385 – VR 388 – VR 250 – VR 387 – VR 391 – VR 392 – VR 402

4 Boarding/sheeting up windows and door openings

Unit VR 01 – VR 02 – VR 03 – VR 154

Where use of plant or machinery is required to carry of the works the following units may apply; VR 299 – VR 250

5 Cleaning bricks for re-use and re-sale

Unit VR 01 – VR 02 – VR 03 – VR 154 – VR 155

6 Cleaning timber for re-use and re-sale

Unit VR 01 – VR 02 – VR 03 – VR 154

7 Setting up and using a pneumatic drill/breaker

Unit VR 01 – VR 02 – VR 03 – VR 154 – VR 155 – VR 299

Additional Unit VR 250

8 Erecting and dismantling screens and dust sheets

Unit VR 01 – VR 02 – VR 03 – VR 154

Additional Unit VR 250

9 Disposing of waste arisings

Unit VR 01 – VR 02 – VR 03 – VR 154

10 Stripping structure of salvageable fittings and materials

Unit VR 01 – VR 02 – VR 03 – VR 154

Where use of plant or machinery is required to carry of the works the following units may apply; VR 299 – VR 250

11 Stripping structure of non salvageable materials (soft strip)

Unit VR 01 – VR 02 – VR 03 – VR 154

Where use of plant or machinery is required to carry of the works the following units may apply; VR 299 – VR 250

12 Setting up and using chain-saw

Unit VR 01 – VR 02 – VR 03 – VR 154 – VR 157

13 Setting up and using mechanical cutting tools including fitting abrasive wheels/discs

Unit VR 01 – VR 02 – VR 03 – VR 154 – VR 156 – VR 158

14 Cutting up metal with fuel/gas cutting equipment

Unit VR 01 – VR 02 – VR 03 – VR 154 – VR 158

- 15 Carrying out Banksman duties
Unit VR 01 – VR 02 – VR 03
- 16 Basic requirements for setting up site
Unit VR 01 – VR 02 – VR 03
- 17 Working at height
Unit VR 01 – VR 02 – VR 03 – VR 154 – VR 155 – VR 250
Additional Units; VR 156 – VR 157 – VR 158
Where plant and Machinery operations are required the following units may apply;
VR 299 – VR 385 – VR 388 -- VR 387 – VR 391 – VR 392 – VR 402
- 18 Opening up buildings/structures by partial removal of non-load bearing walls/partitions
Unit VR 01 – VR 02 – VR 03 – VR 154 – VR 155 – VR 250 – VR 299
- 19 Dismantling roofs constructed with timber and tiles/slates
Unit VR 01 – VR 02 – VR 03 – VR 154 – VR 156 – VR 158 – VR 250 – VR 299
- 20 Demolishing reinforced concrete roofs and suspended floors
Unit VR 01 – VR 02 – VR 03 – VR 154 – VR 155 – VR 250 – VR 299
Where plant and Machinery operations are required the following units may apply;
VR 299 – VR 385 – VR 388 -- VR 387 – VR 391 – VR 392 – VR 402
- 21 Demolishing by hand buildings and structures constructed of masonry, concrete and timber
Unit VR 01 – VR 02 – VR 03 – VR 154 – VR 155 – VR 156 – VR 157 – VR 250 – VR 299
- 22 Demolishing / Dismantling fragile roof coverings and cladding
Unit VR 01 – VR 02 – VR 03 – VR 154 – VR 155 – VR 156 – VR 157 – VR 250 – VR 299
- 23 Demolish / Dismantling steel frame structures
Unit VR 01 – VR 02 – VR 03 – VR 154 – VR 158 – VR 250 – VR 299
Where plant and Machinery operations are required the following units may apply;
VR 299 – VR 385 – VR 388 -- VR 387 – VR 391 – VR 392 – VR 402
- 24 Building construction techniques and safe demolition procedures
Unit VR 01 – VR 02 – VR 03 – VR 154 – VR 390

PART C: FURTHER ACTIVITIES

1 Erect and dismantle access equipment

1.1 Erecting and using ladders

1.2 Using working platforms

1.3 Erecting access systems

1.4 Dismantling access systems

Unit VR 01 – VR 02 – VR 03 – VR 154 – VR 250 – VR 299 – VR 392

2 Erect and secure temporary supports to structures

Unit VR 01 – VR 02 – VR 03 – VR 154 – VR 250 – VR 299

3 Erect and dismantle plant (cranes & rigs)

Unit VR 01 – VR 02 – VR 03 – VR 154 – VR 250 – VR 299 – VR 404

4 Locate services

Unit VR 01 – VR 02 – VR 03 – VR 154

5 Remove waste material and substances

Unit VR 01 – VR 02 – VR 03 – VR 154

6 Carry out slinging, signalling, inspecting and controlling for loading and unloading materials

Unit VR 01 – VR 02 – VR 03 – VR 154 – VR 387 – VR 391 – VR 402

7. Operating plant and machinery to receive and transport loads

Unit VR 01 – VR 02 – VR 03 – VR 154 – VR 299 – VR 387 – VR 391 – VR 402