Demolition Operative

Level 2 Assessment Plan

INTRODUCTION

This document sets out the requirements for end-point assessment (EPA) for the Demolition Operative apprenticeship standard. It is written for end-point assessment organisations who need to know how EPA for this apprenticeship must operate. It will also be of interest to Demolition Operative apprentices, their employers and training providers.

This EPA is designed to enable apprentices to demonstrate occupational competence as a Demolition Operative, and to ensure that they meet the skills, knowledge and behaviour outcomes as defined in the apprenticeship standard. Typically, apprentices would have completed 24 months (minimum of 12) on-programme working towards the apprenticeship standard, with a minimum of 20% off-the-job training.

EPA must be conducted by an organisation approved to offer services against this standard, as selected by the employer, from the Education & Skills Funding Agency's Register of End Point Assessment Organisations.

The EPA consists of two distinct assessment methods:

- Practical Test
- Professional Discussion

Performance in the EPA will determine the apprenticeship grade of fail, pass or distinction.

ASSESSMENT GATEWAY

The EPA should only start once the employer is satisfied that the apprentice is consistently working at or above the level set out in the standard, the pre-requisite gateway requirements for EPA have been met and that they can be evidenced to an EPA organisation. Employers may wish to take advice from their apprentice's training provider(s).

Gateway requirements:

- English and mathematics at level 2 or Apprentices without English and mathematics at level 2 must have achieved level 1 English and mathematics and have taken the tests for level 2. For those with an education, health and care plan or a legacy statement the apprenticeships English and maths minimum requirement is Entry Level 3 and British Sign Language qualification are an alternative to English qualifications for whom this is their primary language.
- Portfolio of evidence made up of:
    - Details of lift plans and safe systems of work the apprentice has worked to (minimum two examples)
    - Photographic evidence of a range of demolition work carried out (minimum six examples)
    - Quarterly employer-written appraisals including mentor reports and witness testimonies

  The portfolio must be signed off by the employer but there is no requirement to provide to the EPAO in advance of the EPA. Reflective account and/or self-evaluations should not be included as evidence in the portfolio.

ASSESSMENT METHODS

It is recommended that the end-point assessment is completed over a period of two consecutive days but to aid manageability can be completed within the same calendar week. The EPA must take place within three months after the apprentice has met the gateway requirements. The methods can be completed in any order.

ASSESSMENT 1: PRACTICAL TEST
Duration: 4 hours (+ 10% at the discretion of the independent assessor)

To complete the practical test, apprentices must carry out a range of demolition duties as per the list below. The test can be carried out on a live demolition site or in a training centre. A maximum ratio of 1:3 assessor:apprentice is permitted. In advance of the EPA the independent assessor must liaise with the employer to select a suitable assessment location. Movement between sites is permitted to ensure full coverage. The final decision will be made by the assessor who must select the location taking into account any access

requirements and ensuring there is scope for the apprentice to perform all of the following duties:

- Demolition works by hand including both soft strip and hard demolition incorporating structural elements
- Safe and effective use of hand tools (one of mattock, crow bar, sledge hammer, lump hammer) and power tools (one of reciprocating saw, cut off saw, breaker)
- Guidance of demolition plant including both hand signals and radio to guide plant to demolish structures
- Three lifting operations (balanced, unbalanced and bundled loads) using a crane or excavator above 10 tonnes
- Demonstrate the correct usage of burning equipment to cut through metals at ground level
- Selection and use of remote-controlled demolition equipment

The practical test must be designed based on the above and the grading criteria at annex B. EPAOs must develop practical specifications of sufficient size to prevent predictability and review them regularly (at least once a year) to ensure they, and the specifications they contain, are fit for purpose.

The lifting operations will be assessed using the industry-recognised penalty points marking system, which will inform the grading criteria as per annex B. Penalty points are awarded per fault and as follows:

Faults	Candidate incorrectly carried out the following:	Fault	Mark	Penalty
Travelling	1 Full observation before moving the load		2	
	2 Full observation whilst guiding and landing the load		2	
Working	3 Exclusion zone maintained		2	
	4 Load placing at the given points within the given tolerance		3	
	5 Lifting accessories kept clear of ground		2	
	6 Each load checking for integrity prior to moving *(by weight of load taken but not raised above ground level)*		3	
	7 Loads level during lifting and moving		2	
	8 Hand lines correctly fitted and used		3	
	Not exceeded eight penalties	Total penalties		
		Achieved / Not achieved		

Repeated faults are allocated multiple penalty points. For example, three penalty points are allocated to fault 4 above. If that fault is repeated, six penalty points will be allocated.

The independent assessor must also perform the role of Demolition Supervisor/Top Man during the practical assessment, supervising the apprentice only, in order to accurately reflect the typical working environment and team structure the apprentice will be required to work in as part of his/her role as a Demolition Operative. The independent assessor is required to intervene in the event of unsafe working practices.

During the practical test, the assessor should ask the apprentice a series of 10 open questions, of which 5 must be safety-critical. Questions will be selected from an EPAO-administered question bank and the answers given recorded with the purpose of assessing underlying knowledge. EPAOs must develop question banks of sufficient size to prevent predictability and review them regularly (at least once a year) to ensure they, and the specifications they contain, are fit for purpose.

ASSESSMENT 2: PROFESSIONAL DISCUSSION
Duration: 120 minutes (+/- 10% at the discretion of the independent assessor)

The professional discussion will be led by an independent assessor from the EPAO. It is recommended for continuity purposes that the same assessor conducting the practical test also conducts the proferssional discussion.

The professional interview must be conducted on a 1:1 basis in a controlled environment free from distraction or influence. This can be on employer premises or a location designated by the EPAO, taking into consideration any relevant access requirements. The professional discussion will be recorded. A portfolio of evidence, which is not itself graded or assessed, will be brought on the day of the discussion and used by the apprentice to provide evidence to support the professional discussion.

During the professional discussion the apprentice will be asked a series of 18open questions, with follow up questions to probe further if required. EPAO's must develop question banks of sufficient size to prevent predictability and review them regularly (at least once a year) to ensure they, and the specifications they contain, are fit for purpose. Questions must be pre-selected to ensure coverage of the KSB's assigned to this method as per annex A, and designed in conjunction with the grading criteria at annex B.

GRADING

Independent assessors must individually grade each assessment method – fail, pass or distinction, according to the requirements set out in this plan. Restrictions on grading apply where apprentices re-sit/re-take an assessment method – see re-sit/re-take section below.

An independent assessor must combine the grades of all assessment methods to determine the EPA grade. Apprentices must at least pass all the assessment methods in order to pass the overall apprenticeship.

Where more than one independent assessor is involved, the independent assessor responsible for the assessment method completed last will be responsible for combining the grades.

Practical Test	Fail	Fail	Pass	Pass	Pass	Distinction	Distinction

Professional Interview	Fail	Pass	Fail	Pass	Distinction	Pass	Distinction
Overall Grade	**Fail**	**Fail**	**Fail**	**Pass**	**Pass**	**Distinction**	**Distinction**

The apprentice cannot achieve an overall distinction grade unless a distinction is achieved in the practical test. This is to reflect the greater weight attached to the practical application of skills and health & safety in the workplace.

RE-SIT AND RE-TAKE INFORMATION

Apprentices who fail one or both assessment methods will be offered the opportunity to take a re-sit/re-take. Re-sits/re-takes must not be offered to apprentices wishing to move from pass to distinction. A re-sit does not require further learning, whereas a re-take does.

The apprentice's employer will need to agree that a re-sit/re-take is an appropriate course of action. Apprentices should have a supportive action plan to prepare for the re-sit/re-take.

The apprentice will only have to re-take the specific assessment method that was failed. If a re-sit is required, or if the re-take is not successful completed within 6 months of the original EPA, the entire EPA will have to be taken again. Re-sits and re-takes are restricted to a pass mark unless in exceptional circumstances, which can be taken into account at the discretion of the EPA organisation.

END-POINT ASSESSMENT ORGANISATIONS

Employers must choose an independent EPA organisation approved to deliver the EPA for this apprenticeship from the Education & Skills Funding Agency's Register of End Point Assessment Organisations (RoEPAO).

Requirements for Independent Assessors

EPA organisations must appoint independent assessors to oversee the practical test and conduct the professional discussion. They must meet the following criteria:

- Be independent of the apprentice, their employer and training provider(s) i.e. there must be no conflict of interest
- Have demolition workplace experience to ensure current and relevant sector knowledge and understanding and hold a TAQA Assessor qualification

Internal Quality Assurance

Internal quality assurance refers to the requirements that EPA organisation must have in place to ensure consistent (reliable) and accurate (valid) assessment decisions. EPA organisations for this EPA must undertake the following:

- Appoint independent assessors that meet the requirements as detailed in this plan – see above
- Provide training for independent assessors in terms of good assessment practice, operating the assessment tools and grading
- Have quality assurance systems and procedures that support fair, reliable and consistent assessment across organisation and over time
- Operate moderation of assessment activity and decisions, through examination of documentation and observation of activity, with a minimum of 20% of each independent assessors' assessments moderated
- operate regular standardisation events that enable assessors to attend a minimum of two events per year
- Operate an appeals process

External Quality Assurance

External quality assurance will be provided by the Institute for Apprenticeships.

STARTS

It is anticipated that there will be 200 starts per year on this apprenticeship.

Affordability has been built into this apprenticeship by the ability of the EPAO to assess each apprentice in the workplace, if suitable.

ANNEX A: MAPPING EXERCISE

KNOWLEDGE	PT	PD
The planning process for demolition operations, utilising standards, the role of Building Information Modelling and Computer Aided Design		X
What is covered in a refurbishment and demolition survey, why it is intrusive and the importance of destructive inspection		X
The decommissioning of services to structures and the requirement to render safe prior to any work being carried out		X
The approach and methods of demolition manually by hand or mechanical, including soft strip, wall, floor, roofing & façade retention		X
The different types of hand and power tools used for carrying out demolition operations, when to use and the limitations of use	X	
The hazards associated with hand and power tools, safe working procedures to be applied for storage, use and replacement		X
The remote-controlled demolition equipment available to the demolition operative, advantages and limitations of use	X	
The structural elements of buildings including – beams, lintels, columns, trusses, roofing components and modern building materials		X
The characteristics and different types of building and structure, traditional brick, reinforced concrete, industrial units and plants, power stations, bridges and complex structures and pre/post tensioned steel		X
The hazards associated with cutting equipment and the safe working procedures to be applied for storage, use and replacement		X
What cutting fuels and equipment are available to the demolition operative and the circumstances in which they would be used		X
The methods of cutting and effects on materials, metals and stability when pre-weakening structures		X
Health, safety & environmental legislation relevant to demolition operations, official guidance and codes of practice	X	X

The dangers, hazards and importance of safe working in confined spaces, at height, below ground and in close proximity to other operations and working on contaminated ground		X
How and why safe systems of work are established along with the permits and authorisation to carry out the work		X
Occupational health as a result of exposure to manual handling, noise, dust and vibration including the effects on hearing, lung related diseases and other injuries to the body both mental and physical		X
The control of substances hazardous to health, how to protect the environment and the importance of segregating and recycling		X
The duties and responsibilities of a slinger signaller and the importance of safety around lifting operations		X
How to read the 'The lift plan' and identify correct lifting accessories for the load type and how the load should be slung	X	
How different types of demolition plant equipment are utilised along with the hazards and importance of exclusion zones and segregation		X
The role of the Demolition Operative and limitations on works to be carried out		X
The structure of a demolition team and the appointments within – Topman, Supervisor, Manager		X
Associations and institutes representing the industry		X
SKILLS		
Carry out point of work risk assessments	X	
Identify and report hazards, unsafe conditions and uncontrolled demolition operations	X	X
Follow and apply the safe systems of work, permits and seek authorisation including the discovery of hazardous materials	X	X
Identify when an area is or potentially becomes a confined space and carry out the necessary confined space precautions		X
Wear the correct Personal Protective Equipment for the demolition operations to be carried out, inspect and store when not in use	X	

Work safely in varying conditions around the site including at height, in close proximity to other operations, contaminated ground, plant and lifting equipment	X	
Limitations and when to hand the work over to the Demolition Topman		X
Identify different materials and components of a structure	X	X
Calculate and quantify materials for removal from site		X
Apply the safest and most appropriate process to the demolition task	X	
Recognise when the task is not going to the plan and when to stop and seek advice or hand over to the Topman		X
Select the correct tool, carry out pre-use checks and identify any faults with hand and power tools and remote-controlled demolition equipment	X	
Report defects and dispose of faulty tools and equipment following the correct procedure		X
Demonstrate how to use hand and power tools safely along with remote controlled equipment for the demolition task to be completed	X	
Leave tools and equipment in a safe state and store in the appropriate location on completion	X	
Select and identify the correct type of cutting equipment associated with the work to be completed	X	
Set up equipment and carry out daily per use checks, identify faults, report any defects and condemn unsuitable and faulty equipment	X	X
Apply different types of cut in relation to varying situations, material types and thickness relating to non-structural steel beams at ground level	X	
Carry out all work safely in line with legislation and official guidance	X	
Read and follow a lift plan and demonstrate how to complete the work exactly to the detail	X	X
Select the correct accessories for the load to be lifted	X	

Utilise various types of lifting accessory to sling and lift loads	X	
Guide demolition plant to carry out operations using a range of communication methods	X	
Communicate clearly with all internal and external personnel using the correct terminology	X	X
Use a range of communication methods including radios and hand signals	X	
Demonstrate a strong ability to work as part of a team working cooperatively with others		X
Provide support to other team members as required		X
Demonstrate a clear understanding of your role and limitations		X
Undertake all tasks responsibly and apply safe working practices	X	
BEHAVIOURS		
Promote a positive safety culture		X
Develop a questioning attitude to challenge procedures not being followed		X
Apply equality, diversity and inclusion in dealing with others		X
Be polite & courteous to peers, managers, clients and members of the public or anyone they come in contact with		X
Take all reasonable care of themselves and others that may be affected by their actions	X	X
Adopt a professional approach to the work, colleagues and client		X
Be aware of the importance of following procedures and following guidance of senior members of team due to the many risks and hazards present in the working environment	X	X
Show professionalism when following safe systems of work and avoiding taking shortcuts that might increase risk	X	
Display adaptability to work effectively as a team and under supervision		X

ANNEX B: GRADING DESCRIPTORS

Pass and distinction grading criteria for the practical test and professional discussions as follows. If the pass standard is not met for either assessment method, that method will be marked as a fail.

Practical Test Pass Criteria	**Practical Test Distinction Criteria**
Achieves all the following criteria. If any of the following criteria are not met, this assessment method will be marked as a fail.	*Achieves pass criteria and at least 3 of the following:*
Carries out a work area risk assessment, identifies surrounding hazards and places the required control measures.	Explains how the work will be carried out and proceeds to carry out the work safely and to plan without requiring further guidance.
Correctly follows safe working procedures and safe systems of work. Reads and interprets the method statement and any drawings. Completes the work safely with guidance from the Demolition Supervisor/Top Man.	Demonstrates expertise in lifting operations, accruing 4 penalty points or less as per the industry-recognised standard marking criteria.
Demonstrates safe use of hand and power tools including the correct manual handling techniques when lifting, carrying or holding hand and power tools throughout.	Demonstrates expertise in remote-controlled demolition operations, accruing 4 penalty points or less as per the industry-recognised standard marking criteria.
Demonstrates the techniques for the safe and effective soft strip of internal fittings and fixtures of a structure.	Completes fuel cutting tasks without any damage to fuel cutting equipment or metal melting back and cuts through metal in clean straight line.
Safely and effectively demonstrates the hard demolition of two of the following in a structure: steel/metal, block, brick, concrete or timber.	When considering the correct tools and equipment for a specific task, can describe a range of options and evaluate to arrive at the most suitable selection for the task.

Selects the correct lifting equipment for the task including accessories, equipment and ancillary items. Carries out the correct sequences as per the lift plan, attaching the load securely to the lifting equipment, and accrues no more than 8 penalty faults as per the industry-recognised standard marking criteria. Carries out a pre-use inspection of remote-controlled demolition equipment, plans for and carries out the safe demolition of a structure under controlled working in a logical sequence as per the plan without damaging any other structures or equipment, and accrues no more than 8 penalty faults as per the industry-recognised standard marking criteria. Shuts down and secures the equipment on completion, changing any ancillary equipment as required. Inspects and carries out all pre-use checks for fuel cutting equipment, sets the flame to the correct pressure and demonstrates three types of cut on various metal types avoiding major damage to cutting equipment. Demonstrates correct procedures for guiding plant and vehicles using all hand signals as per statutory industry guidelines, along with radios and other communications equipment relevant to the task. Communicates clearly using the correct terminology.	

Professional Discussion Pass Criteria	Professional Discussion Distinction Criteria
Achieves all the following criteria. If any of the criteria are not met this assessment method will be marked as a fail.	*Achieves pass criteria and at least 3 of the following criteria:*
Describes demolition procedures, methods and the planning process for demolition operations.	Demonstrates an understanding of how health and safety, and associated regulations and legislation, are applied in the workplace and can make suggestions for improvements to working practices.
Demonstrates an understanding of health, safety and environmental protection legislation relevant to demolition operations.	When considering the correct tools and equipment for a specific task, can evaluate a range of options to arrive at the most suitable selection for the task.
Allocates the correct hand and power tools, including remote-controlled demolition equipment, to different tasks and articulates the hazards associated with each.	Considers legislative, technical and geographical challenges involved in demolition work in a range of demolition environments.
Demonstrates a knowledge of the different types of structures and materials, including the structural elements of buildings and the characteristics of different types of building and structure.	Anticipate potential hazards in advance by interpretation of a lift plan.
Demonstrates an understanding of fuel cutting operations including the hazards associated with cutting equipment, the circumstances under which different fuels and equipment are used and the effects of cutting on materials, metals and stability when pre-weakening structures.	Acts as a role model, promotes a positive safety culture in the workplace and proactively takes steps to reduce risk on site.
Identifies the correct lifting accessories for different load types, how loads should be slung and how different types of demolition plant equipment are utilised along with the	

hazards and importance of exclusion zones and segregation. Knows the limitations of the Demolition Operative role and when to hand over to the Demolition Supervisor/Top Man. Understands the importance of a positive safety culture, explains the importance of equality, diversity and inclusion when dealing with others. Displays professionalism and understands the importance of safe systems of work avoiding shortcuts that might increase risk.	