



National
Operational
Guidance

Hazard

Unstable or collapsed natural or built environments



NFCC
National Fire
Chiefs Council

Developed and maintained by the NFCC



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Hazard - Unstable or collapsed natural or built environments

Knowledge and understanding

Hazard

Unstable or collapsed natural or built environments

Learning outcome

Unstable or collapsed natural or built environments



Control measure - Cordon controls: Unstable or collapsed natural or built environments

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Prevent collapse or further collapse of an unstable surface, trench excavation or other natural or built environment

Limit equipment being taken into the hazard area

Identify an area away from the hazard area to locate personnel, equipment, machinery and any items being removed including debris

Learning outcome

Understand:

- The importance of ensuring fire and rescue service activity does not worsen the unstable or collapsed natural or built environment

Understand:

- What equipment should be allowed into the hazard area

Understand:

- The need to limit the weight, load and movement in the hazard area



Control measure element

Learning outcome

Isolate or move vehicles, machinery or equipment that could create vibration

Understand:

- The need to minimise any vibration to the ground
- The need to consider the impact of moving vehicles, machinery or equipment to the surrounding area

Practical application

Control measure element

Learning outcome

Establish cordon controls for an unstable or collapsed natural or built environment at an appropriate distance from the hazard area

Demonstrate the ability to:

- Establish appropriate cordons to control access to the area surrounding an unstable or collapsed natural or built environment

Identify an appropriate area to locate equipment, personnel and debris to prevent further collapse of an unstable natural or built environment

Demonstrate the ability to:

- Locate fire and rescue service equipment and personnel appropriately

Consider isolating, controlling or moving vehicles, machinery or equipment for incidents involving an unstable or collapsed natural or built environment

Demonstrate the ability to:

- Appropriately isolate or move machinery, vehicles and equipment
- Carry out a risk assessment to take into account the impact of moving vehicles, machinery or equipment before doing so
- Request that vehicles, machinery or equipment are safety moved



Control measure - Safe system of work: Unstable or collapsed natural or built environments

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element	Learning outcome
What activities a fire and rescue service may need to carry out for an unstable or collapsed natural or built environment	<p>Understand:</p> <ul style="list-style-type: none"> • The types of activity that may be required • The precautions that may need to be taken
Assessing an unstable or collapsed natural or built environment	<p>Understand:</p> <ul style="list-style-type: none"> • The need for early assessment • The need for specialist advice • Who can provide specialist advice • The need to look for signs of collapse
Precautions to take before committing personnel if the support system has been compromised	<p>Understand:</p> <ul style="list-style-type: none"> • The need to liaise with the responsible person or a competent person to determine a safe system of work • The need to minimise the number of personnel committed to the hazard area
Consider additional hazards	<p>Understand:</p> <ul style="list-style-type: none"> • The incident may also involve: <ul style="list-style-type: none"> - Working at height - Working near unguarded edges - Working in confined spaces - Restricted access and egress • The hazards presented by additional loading to the area

Practical application



Control measure element

Learning outcome

Avoid applying additional loads to the opening, such as fire and rescue service vehicles, equipment and personnel

Demonstrate the ability to:
Appropriately locate fire and rescue vehicles, equipment and personnel

Consult with the responsible person or competent person to establish a safe system of work for an unstable or collapsed natural or built environment

Demonstrate the ability to:
• Establish a safe system of work using information obtained from the responsible person or competent person

Consider requesting specialist advice regarding unstable or collapsed natural or built environments

Demonstrate the ability to:
• Request appropriate specialist advice

Identify the type of material being excavated and the height and angle of an excavated face

Demonstrate the ability to:
• Consider the properties of an excavation

Have emergency procedures in place for unstable or collapsed natural or built environments

Demonstrate the ability to:
• Establish emergency procedures before committing personnel to the hazard area

Ensure that minimum numbers of personnel work in the hazard area

Demonstrate the ability to:
• Control the number of personnel in the hazard area

Assess and continuously monitor the hazard area for signs of further collapse of an unstable or collapsed natural or built environment

Demonstrate the ability to:
• Monitor the hazard area for signs of further collapse

Consider spreading the load of equipment or personnel to reduce the pressure on the opening

Demonstrate the ability to:
• Risk assess and consider spreading the load of equipment or personnel
• Be aware that early signs of collapse may be hidden by materials used to spread the load



Control measure - Shoring

TRAINING SPECIFICATION

Knowledge and understanding

Control measure element

Learning outcome

Shoring

Understand:

- The benefits of shoring and why shoring elements of structure may be necessary
- The need for shoring operations to be carried out by competent personnel
- When improvised shoring methods may be considered
- The considerations and actions prior to using on-site resources for shoring
- The need to monitor and assess shoring throughout the incident

Practical application

Control measure element

Learning outcome

Consider requesting specialist advice and resources for shoring

Demonstrate the ability to:

- Assess the structural stability of the working environment to ascertain the need for shoring
- Identify and request the support of additional resources and specialist advisers to aid shoring
- Provide sufficient protection from secondary collapse so operations may proceed

Ensure the competent person for shoring continually assesses and monitors its effectiveness

Demonstrate the ability to:

- Identify the person responsible for continually assessing and monitoring the effectiveness of shoring



Control measure element

Seek advice or assistance for shoring from the responsible person or competent person

Learning outcome

Demonstrate the ability to:

- Seek appropriate advice or assistance for shoring