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## Generic Precautions in Rescue Work

### Scope

This guidance document details generic safety precautions and control measures that must be in place in order to ensure a safe system of work in structural collapse rescue operations. Specific safety precautions, relating to the use of an item of equipment or the undertaking of a particular activity are contained within the related operational guidance documents.

### Personnel Safety Precautions

It is vitally important that all fire service personnel appreciate the hazards associated with incidents involving collapsed structures and are able to identify and put into operation the appropriate control measures. Training in hazard awareness, and practice in applying the appropriate precautionary measures, should be part of every firefighter's training syllabus.

Efforts to remove casualties from a collapsed building may expose rescuers to more hazards than are faced by the victims. Rescue personnel must constantly observe all safety precautions to protect themselves from injury and be alert to any changes in conditions that may cause an additional threat to safety and to alert all team members of the danger. In particular:

- For all tasks using equipment, the appropriate PPE must be worn. This includes helmet, boots, gloves, overalls, and eye, respiratory and hearing protection
- Prior to entering the collapsed structure, all personnel should be in receipt of Dynamic Risk Assessment training (specific to the USAR environment) and have received information, instruction & training in the safe use of the equipment.
- Personnel must look up and down before entering a structure, checking for overhead hazards and safety of flooring, etc.
- When inside buildings, personnel should keep close to walls – as a weakened floor may collapse with the weight of the rescuer.
- Utility services should be isolated before any rescue work proceeds, but personnel should be aware that some supplies may not have been located and made safe. Therefore they should not cut water pipes, gas pipes or electrical cables.
- Personnel must be aware of the hazards associated with large amounts of broken glass that the force of the collapse could have embedded into walls and furniture.
- Personnel should not force doors or windows as they may be wedged in a position that is supporting a load.

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## Generic Control Measures

- A safety briefing will be given to all personnel prior to starting work.
- Crews will consist of a minimum of two personnel and must be in constant communication with their dedicated safety officer.
- Throughout the operation, where possible, there should be an emergency crew standing by in case of further collapse. This crew should not be used for any other operation. If they are deployed, a further emergency crew should be assembled.
- The Incident Commander will ensure that emergency evacuation procedures are in place and that personnel are aware of such arrangements.
- Utility services should be isolated before any rescue work proceeds and, if this is not possible, the condition of the utilities present in the structure should be continually monitored. Dynamic risk assessments based on the information received from the scene assessment process can dictate additional control measures, and will provide personnel with information as to the working environment.
- Safety officers must be nominated as soon as possible and positioned effectively.
- Safe operating areas must be established. Cordons and hazard zones should also be marked. Cordons will be used to denote traffic routes, and demarcation of hazardous areas.
- Where natural lighting is insufficient all incident ground sectors should be suitably and sufficiently illuminated.
- Appliances and equipment such as pumps and generators may cause vibration and further collapse. Therefore they should be positioned well away from weakened buildings and structures.
- Due to the arduous nature of rescue work, all personnel should be aware of the need for regular rotation of personnel.
- Atmospheric conditions should be continually monitored to ensure the safety of personnel.
- Incident commanders must be aware of the hazards posed by helicopters operating in the vicinity, such as noise, pressure waves and vibration. They must be prepared to instigate an air exclusion zone around the incident. Such a measure must be done in close co-operation with the police.

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