National Operational Guidance

NFCC
Fire Central Programme Office

Developed and maintained by the NFCC

Contents

Telemetry

Telemetry equipment should comply with relevant British and European legislation and standards.

The power of a radio frequency signal diminishes over distance. It will also be affected as the radio wave passes through solid objects such as walls and floors of buildings, natural terrain, basements tunnels, etc.

To maximise the signal power of a radio frequency transmission, fire and rescue services should follow telemetry system provider guidance and may consider, where appropriate, enhancing signal strength by using a leaky feeder and/or repeater units.

Siting of the telemetry BA entry control board or unit should take into account the optimal position for maximising the effective range of telemetry. It will therefore have a bearing on the location of the BA entry control point (BA entry control point).

The procedures to be followed by individual fire and rescue services in the event of a loss of contact or breakdown in telemetry communications must take into account the availability of other means of communication with BA teams, such as radio, thermal image camera feed, cable communications and even direct speech.

Emergency total evacuation procedures

Where two or more telemetry BA entry control boards or units are in use at the same incident and an emergency total evacuation is required, each telemetry BA entry control board or unit at the scene will initiate this level of evacuation.

After transmitting an emergency total evacuation signal, an acknowledgement signal must be sent from each telemetry radio unit to the telemetry BA entry control board or unit. In the event of the acknowledgement signal not being received by the telemetry BA entry control board or unit, the emergency total evacuation signal must be repeated.

After sending an emergency total evacuation signal, it is imperative that the person responsible for the BA entry control point checks to ensure that all BA wearers committed to the risk area through their BA entry control board are in telemetry. If this is not the case, the person responsible for the BA entry control point should try to establish radio communications with all BA wearers committed to the risk area.

If it is not possible to establish communications with BA crews, BA emergency procedures should be considered.

Emergency selective evacuation procedures

Emergency selective evacuation is an integral emergency feature available when telemetry is employed. It allows the person responsible for the BA entry control point to evacuate specific BA teams in an emergency while leaving other BA teams in place. For example, in certain circumstances it may be necessary to ensure that an escape route remains protected while an evacuation takes place, or to evacuate a BA team/s from an unacceptably hazardous situation.

An emergency selective evacuation signal is an emergency procedure and must not be used for any other purpose.

Only those in specific command roles may decide that it is necessary to implement the emergency selective evacuation procedure. The nominated person, under the overall command of the incident commander, should decide which BA teams should be evacuated by this method.

After transmitting an emergency selective evacuation signal, an acknowledgement signal must be sent from each telemetry radio unit to the telemetry BA entry control board or unit. In the event of the acknowledgement signal not being received by the telemetry BA entry control board or unit, the emergency selective evacuation signal must be repeated.

After sending an emergency selective evacuation signal, it is imperative that the person responsible for the BA entry control point checks to ensure that all BA wearers committed to the risk area through their BA entry control board are in telemetry. If this is not the case, the person responsible for the BA entry control point should try to establish radio communications with BA wearers committed to the risk area.

If it is not possible to establish communications with BA crews, BA emergency procedures should be considered

BA wearer emergency-initiated withdrawal in relation to telemetry

Telemetry gives each BA wearer the ability to initiate a signal indicating that they are withdrawing from the risk area. The decision on whether or not to signal that withdrawal rests with the BA wearer. When that withdrawal signal is activated, all members of that BA team must withdraw from the risk area together.

If the BA entry control operative receives a withdrawal signal from a BA wearer or wearers committed to the risk area, they will acknowledge receipt of the signal and report this directly to the person responsible for the BA entry control point. An immediate assessment of risk should be undertaken to identify the subsequent actions to be taken.

Distress alarm – automatic and manual in relation to telemetry

In the event of a distress alarm (either manual or automatic) being sounded, as a minimum, a signal will be transmitted to the relevant telemetry BA entry control board or unit.

Only wearers in distress should activate a manual distress alarm. This will allow the BA entry control point to determine how many BA wearers require assistance.

Note: In circumstances where the alarm of a BA wearer in distress cannot be activated, the distress alarm belonging to another member of the team should be operated.

If the BA entry control operative receives a distress signal (automatic or manual) from a BA wearer committed to the risk area, they will acknowledge receipt of the signal and report this through the command line to the incident commander or sector commander and other BA entry control points.

Following acknowledgement of the distress signal (automatic or manual), the person responsible for the BA entry control point will be expected to follow normal procedures on whether to commit a BA emergency team immediately.

If enquiries indicate that a distress signal (automatic or manual) does not originate from a telemetry radio unit that is logged on, the incident commander must be notified, with a view to passing the information to fire and rescue control so that checks can be initiated with neighbouring incidents or fire and rescue services.

Telemetry communications signal failure

There are various reasons for a loss of telemetry. The most likely is that the telemetry radio unit is temporarily out of range of the telemetry BA entry control board or unit.

Users of telemetry should be aware that, like any device that relies on radio transmissions, telemetry radio units could be out of range because of their distance from the control board or unit or owing to physiological conditions at the incident inhibiting effective radio broadcast.

There may be locations where a Site-Specific Risk Assessment indicates that signal broadcast, and therefore telemetry, will not be achieved. At these locations and/or risk premises, fire and rescue services should establish alternative control measures to maintain effective BA command and control in the absence of telemetry.