

# From Engineering Safety to Competency

In Issue 3 of RISKworld we reported on the initial work carried out by Risktec to develop the operational safety case for Network Rail's Interim Voice Radio System (IVRS) - a digital radio system enabling direct communication between train crew and signallers in an emergency. Since then Risktec has helped deliver safety training to IVRS users. IVRS is now operational on a significant stretch of the West Coast mainline and its use in designated areas is mandated.

## Training Requirement

The safety case for IVRS identifies several hazards for which procedural safeguards are the claimed mitigation. The implementation of these controls requires users to be appropriately trained. Risktec has used its experience of the IVRS safety case to extend its role to training. By producing the training material and delivering the training courses, we have helped to embed the safety requirements into day-to-day operations, thus ensuring that hazards which claim procedural controls are managed.

In addition to ensuring that users have a common level of understanding of the IVRS equipment, the training covers its operational requirements, how it should be used, contingency arrangements for when it is not available due to equipment or network failure for example, and fault reporting.

## Training Objectives for IVRS Users

- Deliver the required competence to use the IVRS equipment
- Engender confidence with IVRS operation
- Promote an understanding of what risks are associated with IVRS operation
- Provide appropriate training to ensure that these risks will be managed

## Approach to Training

The nature of the training needed to take account of the two groups of IVRS users: mobile users who make up the Operating Company train crews and fixed users who comprise Network Rail signalling staff.

The large number of mobile users (over 3,000 handsets have been issued to Operating Companies) necessitated a 'train the trainer' approach. Each Operating Company identified a suitable trainer from their own staff to receive the IVRS training and then continue to train their own staff.

For signaller training, the smaller number of staff meant that direct training was possible. To date, Risktec has presented 15 training courses and trained 30 signallers.

## Continuous Improvement

There have been several IVRS emergency calls made by drivers to signallers and this experience has been used to monitor the effectiveness of the training. A poster campaign is being used as the continuous improvement mechanism by which any lessons learnt from analysis of real operational use is being passed on to all system users.

For further information, contact Ian Woodward



The IVRS handset



The IVRS handset in use on a train

## Did you know ... that product safety warnings may make you laugh?

The following selection of product safety warnings were allegedly found on real products:

- On a hairdryer: Do not use while sleeping.
- On a steam iron: Do not iron clothes on body.
- On children's cough medicine: Do not drive car or operate machinery.
- On sleeping tablets: May cause drowsiness.
- On Xmas lights: For indoor and outdoor use only.
- On a bag of peanuts: May contain nuts.
- On a chainsaw: Do not attempt to stop chain with your hands or genitals.
- On a Superman costume: Wearing of this garment does not enable you to fly.

For more laughs, visit [siri.uvm.edu/ppt](http://siri.uvm.edu/ppt)