

	Health, Safety, Quality and Environmental Alert	Alert number: 25-14	Document Reference: RSS/F/HSQE/001
	LOWS Mapping	Issue Date: 26/08/14	Author: Steve Milroy

(To be posted on HSQE Notice Boards for a Period of 1 MONTH from date of issue)

What is the purpose of mapping for LOWS?

The purpose of LOWS mapping is determine whether a radiographic signal can be achieved between the lookout device and the central control unit and also highlight any areas or structures that may affect the LOWS equipment.

What area is to be mapped?

When mapping for LOWS you will be provided with designated mileages that require coverage which will normally consist of the area the warning is required and an overlap which to include the distance that the lookout will be positioned depending on the line speed.

For example if the area you are protecting is to cover at 125MPH the overlap will have to include 1540y warning time to achieve the required 25 seconds warning.

The overlap can be calculated using the sighting distance chart as the same one you would use to deploy conventional lookouts and consider any points or branch Lines that may affect the LOWS deployment.

How to map the area

Mapping small worksites:

Place the hand switch at the limit of the area that requires mapping then place the central unit in the middle of the site, Switch on both devices and check that a full radio signal can be achieved between the two devices.

If a full signal is achieved leave the system on too see if there is any radio interference in the area announce trains into the worksite to determine if there is any signal loss due to the passage of trains.

Once you are happy that the signal between the two devices is a good one with no interference then you can switch off take note of any Structures and radio masts in the area.

Set up the hand switch in at the other end work site and repeat the above process.

Mapping large areas:

Set up the Hand switch at the limit of the area to be covered make sure you include the distance for the lookout warning and position the central unit at a reasonable distance away do the above switch on and tests to establish radiographic signal and take note of any structures and radio masts that may cause interference.

Then leap frog the hand switch to the other side of the central unit and repeat switch on and tests once it is confirmed a full signal is achieved continue to leap frog the devices throughout the mileages that require mapping and repeat the switch on and test process.

Remember to take note of anything that may affect the radio signal and equipment throughout the mileages and note down any points or branch lines that may affect the LOWS deployment.

When Mapping any area large or small please make sure you always take down the mileages of all devices when switching on and testing and enter them on the mapping log.

What happens when a signal does not work in the area being mapped?

Make note of any issues or errors on the log sheet and try to obtain a full signal if the issues or errors continue then log the mileages that are the problem areas and report it straight away.

What to do with the mapping information?

Enter all information on mapping log sheets provided make sure all details are clear and correct as these may be used in future reference and the information on the mapping log will be transferred in to a full Mapping report.