SUPPLY CHAIN SAFETY
LEADERSHIP GROUP

**Highways Safety Hub**

**Raising the Bar 40**

Spoken Safety Critical Communications

# Contents

## Objective

This Raising the Bar Guidance Document is an industry agreed and endorsed standard for spoken safety critical communications. It seeks to provide a clear protocol to improve the quality of communications and prevent misunderstandings and misinformation.

## Scope

The expectation is that this Raising the Bar Guidance Document will apply across all National Highways worksites and will be implemented by all supply chain partners working with National Highways. Spoken safety critical communications are essential to ensuring safety. All operational conversations between different teams in the live highways environment and during emergency situations are covered by this guidance.

## Background

Inadequate communication has led to a number of significant and dangerous incidents occurring on the strategic road network putting roadworkers and members of the travelling public at risk. Communication is regularly identified as part of incident investigation analysis as a root cause or contributory factor and developing a common industry sector protocol has been agreed as a priority for improving safety.

## Governance Requirements

Supply Chain Partners must be satisfied that the Guiding Principles for spoken safety critical communications detailed within this document are implemented in all relevant safety critical situations, as an absolute minimum.

## Minimum Requirements

The following Guiding Principles and protocol are mandatory requirements and suppliers shall ensure these elements are applied fully on National Highways sites.

**Mandatory Elements – Guiding Principles, all spoken safety critical communication has four distinct steps**

› **1. Opening** – participants establish each other's identity and location. Where this involves the use of phones or radios the person making the call must first identify themselves with their name, job role and location; and the person answering the call must likewise give their name, job role and location. This makes sure everyone is clear about who they are speaking with and makes sure they are speaking with the correct person.

› **2. Information** – participants exchange information, describing a situation, a problem etc. Be accurate, brief and clear. This enables a good understanding as to what has happened or is happening.

› **3. Actions** – participants exchange information regarding action to be taken. The aim here is for instructions to be passed from one participant to another. Instructions can be passed in both directions.

› **4. Confirmation** – participants confirm that they have understood the situation and the actions to be taken. The aim of this part of the conversation is to ensure a clear understanding has been reached between the participants. This is achieved by one person repeating the agreed actions back to the other.

**Standard Approach:**

› **Locations** will be identified using road / motorway, direction, lane, marker post, chainage
**Note –** Emergency Services use "what 3 words" so if you have a mobile phone make sure you have the app downloaded so you can relay this information as well

› **Alphabet** – use the phonetic alphabet as required

› **Numbers** – use single digit numbers (zero, one two etc.)

› **Emergencies** – learn and practice how to make an Emergency Call

› **Language** – the English language will be used as the operating language for all safety critical communications

## Guidance – Applying the Spoken Safety Critical Communications Protocol

### Overview

**The following guidance is written with the expectation that it represents best practice and as such should normally be followed unless a better local solution has been devised to meet the overall objective.**

It is important that all parties involved take responsibility for spoken safety critical communication.

### Risk Based Approach

Every operational conversation adjacent to or within a live carriageway environment involves the agreement of a verbal contract. Safety critical activities can be extremely wide ranging from the installation and removal of temporary traffic management, to lifting operations, entry into confined spaces and co-ordination of activities between different contractors and organisations working on the strategic road network. Assessment of works involving spoken safety critical communications will help identify those work activities and specific individuals who require relevant training.

It is also pertinent to consider whether spoken communications will occur face to face, by radios or telephone and to select the most appropriate method.

Where teams of people are working together it is essential that the Supervisor or Ganger is given the responsibility as the Lead for all safety critical communications.

When considering whether communications are safety critical the safety of the travelling public and others using the strategic road networks must be taken into account.

### Dynamic Assessment

To overcome barriers to communication when out in the field individuals must carry out a dynamic assessment and ensure that they:

- Use the safest communicating position available, somewhere dry and quiet if possible (this may be in a vehicle)
- Speak slightly slower and at a good volume
- Avoid ambiguous words and regional words
- Keep jargon to a minimum
- Use the structured 4 step conversation technique
- Be accurate, brief and clear in your communications
- Confirm understanding by repeating back

**Note** - Where there is **ANY confusion** or expected onward communications are not received, the operative with an action to take on site, for example, removal of temporary traffic management must defer to the safest decision e.g. **do not remove TTM, until clear communication is received.**

### Radio Etiquette

When using radios staff need to be aware that when you have talk button pressed no one else can transmit or be heard, it's a one at a time method of communication. When the push to talk button is pressed there can be a short delay before the radio transmits so you need to wait a second or two before speaking so that the full communication is transmitted. Using similar language and etiquette on radio channels used by several people makes understanding easier, this should be covered in any spoken safety critical communications training delivered as appropriate.

## People Requirements

### Training and Competency Requirements

At the current time there is no nationally agreed training standard within the highways sector for safety critical communications. However, many workers who also work in the rail sector will have completed training as

part of their PTS card on the Network Rail Safety Critical Communication process which this guidance mirrors.

It is essential that all staff involved in safety critical communications attain a level of training and competency to ensure that the agreed protocols are understood, followed and become embedded in "business as usual" activity. Organisations must provide in-house training including all elements listed in the syllabus at Appendix 1. The training should be repeated as a minimum once every 3 years, or sooner if competency issues arise in between.

### Assurance Activities & Monitoring

It is good practice to monitor safety critical communications. This can be done in a variety of ways. It can be completed "live" in the room by a Communication Mentor, or it can be completed following an event or incident where the conversation has been recorded.

There is no specific requirement to record all radio and phone conversations and clearly if contractors are recording conversations, they must consider GDPR compliance as part of this activity.

A sample monitoring form is provided at Appendix 2, and this form may also be helpful for investigators to refer to when undertaking incident investigations where there has been a communication breakdown. It provides a useful checklist of questions to consider.

## Emergency Arrangements

### Emergency calls

In the event of an emergency situation on the strategic road network it is essential that clear and prompt communications are made to the correct organisations and authorities.

Regional and local emergency contact details must be available to all who need them and should be referenced in the Principal Contractors' Emergency Response Plan.

If there is a serious incident and you require immediate emergency response phone 999 or 112 and:

- Remain calm
- Begin all calls by stating "This is an emergency" and ask clearly for the service you require – police/fire/ambulance
- You will be asked for your name, number, location (what 3 words)
- While you are answering questions with the operator a despatcher will be alerting the emergency services
- Key information required will be the nature of the incident, number of casualties and extent of injuries
- Do not hang up the phone until the operator tells you to

### Reporting and Recording

Any significant breaches in safety critical communications which results in either a high potential near miss or an actual incident must be reported in line with GG128 to the National Highways Project Manager or Sponsor and investigated in accordance with their potential severity.

Where required by GG128 incidents must be logged on the National Highways HART incident reporting system. Investigations must be made promptly, openly and any lessons learned shared appropriately.

### References

Link to HSE website: Human factors/ergonomics – Safety critical communications (hse.gov.uk)
Rail Industry Standard RIS-8046-TOM Spoken Safety Critical Communications
Osborne Infrastructure Safety Critical Communications Training

**Appendix 1 Syllabus for Spoken Safety Critical Communications Training**

| | SPOKEN SAFETY CRITICAL COMMUNICATIONS TRAINING SYLLABUS | |
|---|---|---|
| **1.** | **INTRODUCTION** | |
| | Explain what spoken safety critical communications are and their purpose | |
| | Briefly explore some relevant in-house case studies where incidents have happened as a result of communication failures | |
| | Reminder of safety critical responsibilities | |
| | State the vision for safety critical outcomes | |
| **2.** | **ASSURANCE THROUGH COMPETENCE & BEHAVIOURS** | |
| | Lead communicator arrangements explained | |
| | Review of phonetic alphabet use and single use of numbers – practice spelling out words, registration numbers etc. | |
| | Review of technical and non-technical skills, experience and competencies which make a good communicator | |
| | Review of elements which can impair communication and how these can be overcome | |
| **3.** | **EFFECTIVE COMMUNICATION TECHNIQUES** | |
| | Overview of good communication structure – ABCD (accurate, brief, clear and dynamic) | |
| | Ensuring the purpose of the communication is clear from the outset | |
| | Use of the 4 step communication method – opening, information, actions and confirmation | |
| | Dealing with disruptive influences / people who are not listening or who interrupt | |
| | Components of effective communication – words 7%, tone 38%, body language 55%. Give examples of good and bad. | |

| | | |
|---|---|---|
| | | How can you ensure communications are heard, understood and remembered as intended? Discuss examples of using conscious and unconscious memory. |
| | | Styles of communication – passive, aggressive, passive-aggressive and assertive. Give examples and discuss which is most effective and why. |
| | | Explain how different people receive information from the senses and have a natural preference – some people are more visual, some are auditory, some understand by doing or being involved, how can this impact safety critical communications? |
| | | Use of open questioning to understand a developing situation – as opposed to closed questioning. Use some examples to demonstrate. |
| | | Optional section on radio use and radio etiquette – have some charged radios on hand to enable practice. |
| 4. | | **PRACTICE SESSION** |
| | | Brief review of main points by the trainer – who then gives a 3 or 4 minute example of a spoken safety critical communication including all relevant components and techniques |
| | | As individuals or in pairs get the group to deliver a communication to the rest of the group ensuring it is memorable and that the audience understands the communication as intended. This can be non-work related – making a cup of tea, washing the car, getting dressed for work etc. After each briefing the group provides feedback about what worked and what didn't and how the effectiveness of communication could be improved. This should be light-hearted and fun as this will aid learning. |
| 5. | | **VALIDATION OF COMPLETION, EVALUATION & MAINTENANCE OF LEARNING OUTCOMES** |
| | | Assessment of individuals communication skills during brief presentation by the trainer and the group as final part of training session |
| | | Training certificate issued and training recorded |
| | | Feedback to individuals from Communication Mentors and other monitoring activities |

**Appendix 2 Sample Monitoring Form for Safety Critical Communications**

| DATE OF ASSESSMENT: | | | PROJECT/CONTRACT: |
|---|---|---|---|
| NAME OF ASSESSOR: | | | ROLE: |
| INDIVIDUALS BEING ASSESSED | Participant 1 (Lead) | | Participant 2 |
| Name: | | | |
| Job Role: | | | |
| Location: | | | |
| Employer: | | | |
| Date & Time: | Method of Communication: | | |
| | Reason for Conversation: | | |
| Safety Critical Communication Protocol | Participant 1 | Participant 2 | Notes |
| **OPENING – identifying the parties involved** | | | |
| Did each person identify themselves? Giving name and role, employer and location | | | |
| Did the individual repeat back to confirm they were speaking with the correct person? | | | |
| Did the individual prompt the other person if they did not fully identify themselves? | | | |
| **Emergency calls only** – did the person start the conversation "this is an emergency" | | | |

| **INFORMATION – providing information about the situation** | | | |
|---|---|---|---|
| Did the individual identify the purpose of the communication? | | | |
| Did the person include all key information? | | | |
| Did the person deliver the communication concisely with not superfluous chat? | | | |
| Was all the information delivered accurately? | | | |
| Did the individual ask questions to make sure they had all the correct information? | | | |
| Did the individual repeat back all the critical details to make sure there were no errors? | | | |
| Was the information communicated in a logical structure? | | | |
| **ACTIONS – agreeing the actions to be taken** | | | |
| Were the instructions regarding actions to be taken given clearly with no ambiguity? | | | |
| Did the person actively listen to the instructions regarding actions to be taken – allowing time for instructions to be finished before going to the next stage? | | | |
| Did the individual repeat back the actions agreed to be taken to confirm understanding? | | | |
| Did the individual challenge the other party if the agreed actions were not repeated back? | | | |

| CONFIRMATION – confirming agreement | | | |
|---|---|---|---|
| Did the person actively listen to the information and actions with no interruptions? | | | |
| Did they ask questions to check they had received and recorded all the critical facts? | | | |
| Did they repeat back a summary of actions and / or correct any errors? | | | |
| Did they challenge the other party if they did not repeat back details about subsequent actions? | | | |
| Did the individual make sure that contact details were exchanged if appropriate? | | | |
| OVERALL CONTENT OF COMMUNICATION AND USE OF PROTOCOLS | | | |
| Did the communication have a logical structure? | | | |
| Was appropriate use of the phonetic alphabet made? | | | |
| Were singular numbers used? | | | |
| Were standard terms and phrases used? | | | |
| Were times stated using the 24 hour clock | | | |
| Were slang and local terminology avoided? | | | |
| Were the participants professional and polite? | | | |
| Were the participants appropriately assertive and challenging as required? | | | |
| Did the participants speak clearly, at an appropriate pace and volume? | | | |

| CRITERIA TO BE USED FOR SCORING SPOKEN SAFETY CRITICAL COMMUNICATIONS & POTENTIAL ACTIONS | | |
|---|---|---|
| | CRITERIA | SUGGESTED ACTION |
| GOOD QUALITY COMMUNICATIONS | All the communication protocols have been followed. The communication was concise and polite. A clear understanding was achieved. | It is recommended that if the individual meets these criteria they are given positive feedback regarding this assessment. |
| SATISFACTORY BUT SOME DEVELOPMENT REQUIRED | Some of the communication protocols have been followed. There was potential for improvements in the communication to enhance the clarity of the message. | The local manager should as a minimum give feedback to the individual and include as part of the ongoing competency assessment. In the case of a significant shortfall in communications the manager should consider issuing a development plan with an appropriate timescale. |
| UNSATISFACTORY COMMUNICATIONS | There was a high likelihood that a misunderstanding could have occurred. | The local manager should consider whether immediate action needs to be implemented in respect of the individual concerned to re-establish competency in spoken safety critical communications. |

**Appendix 3 NATO Phonetic Alphabet**

| | | | | |
|---|---|---|---|---|
| A | Alpha | N | November |
| B | Bravo | O | Oscar |
| C | Charlie | P | Papa |
| D | Delta | Q | Quebec |
| E | Echo | R | Romeo |
| F | Foxtrot | S | Sierra |
| G | Golf | T | Tango |
| H | Hotel | U | Uniform |
| I | India | V | Victor |
| J | Juliet | W | Whisky |
| K | Kilo | X | Xray |
| L | Lima | Y | Yankee |
| M | Mike | Z | Zulu |