

# **Middleton Railway – Hearing Assessment Process**

## **1. Introduction**

This process has been developed as a means to carry out a practical hearing assessment for any members of crew who have been unable to complete the hearing test as part of the medical assessment by the railway doctor.

This process has been developed in line with Rail Industry Guidance Note GO/GN3655 – Guidance on Medical Fitness for Railway Safety Critical Workers, issued 7<sup>th</sup> June 2014 and has been reviewed and approved by the Traffic Manager, Safety Officer and Medical Officer.

Hearing requirements for railway staff engaged in safety critical work are based on the need to be able hear:

- Spoken safety communications using a range of media, including face-to-face speech, in outside as well as enclosed environments
- Audible warnings and alerts in driving cabs (where applicable)
- Audible warnings, such as train horns, when on or near the line, when carrying out work on the infrastructure or when other duties such as driving or shunting necessitate going on or near the line.

The type of work to be carried out and the environment it is to be carried out in are significant factors in assessing the hearing requirements for safety critical work, and may change over time.

Hearing assessments should take account of the normal working environment, including ambient noise levels and the communications equipment available. Where members of staff require the use of hearing aids, in the first instance an assessment of hearing capability should be undertaken by the railway doctor. Should this not be possible, or the doctor's assessment indicates a hearing aid is required, a workplace hearing assessment must be undertaken. It is important to verify with this workplace hearing assessment that a member of staff with a hearing aid can use the main communication methods that they are likely to use in the normal course of their duties.

Following a workplace hearing assessment, if the member of staff passes, consideration should be given to the risks associated with:

- Changes from analogue to digital type hearing aids
- Hearing aids making noise excessively loud
- Use of temporary replacement hearing aids that are not equivalent to the aid they are replacing
- Hearing aids developing a fault during operational duties

The member of staff must be made aware of these risk factors and how they may impair their ability to safely carry out their duties.

## **2. Workplace hearing assessment**

The purpose of a workplace hearing assessment is to demonstrate that the individual's hearing is effective in their normal work environment. The assessment will:

- Identify the main safety critical communications systems that the individual is likely to use
- Identify the main safety related alarms and alerts that the individual is likely to have to respond to
- Ensure that the individual is observed successfully using these systems in a normal working environment

Face to face conversations should be undertaken with the individual, representative of the conversations and working environments the individual might be in, including both noisy and quiet environments. The purpose of these conversations is to determine if the individual is able to hear what was said in all environments. This assessment does not require the quality of hearing to be assessed, but rather that the message was understood.

It is deemed that all the operational roles will need to use the same safety critical communication systems and that the same safety alerts will apply to all duties, as such, a standard assessment can be used for all operating grades where an individual requires a hearing assessment.

### **Main Safety Critical Communications Systems:**

- Radio
- Mobile telephones & landlines
- Verbal

### **Main Safety Alerts & Alarms:**

- Locomotive whistle/horn

### **Normal Working Environment:**

The normal working environment for operational staff includes operating steam and diesel hauled passenger trains, which can be up to 40m long including locomotive(s), and the movement of vehicles through shunting. Communication is required between;

- locomotive crew and guards/travelling ticket inspectors during the operation of passenger trains
- operational staff and passengers who may need assistance on the train or on platforms
- shop staff and guards/travelling ticket inspector
- locomotive crew and other members of operational staff from on the ground during shunting movements

Based on the communication systems, safety alerts and normal working environment, the workplace hearing assessment will consist of the following conversations to determine whether the individual reaches a standard that can demonstrate that their hearing is sufficient to carry out safety critical duties.

1. Instruction spoken in a normal tone approximately 1m away from the individual, outside in a platform area. This is carried out 3 times;
  - a. in front of the individual slightly to the right
  - b. in front of the individual slightly to the left
  - c. directly behind the individual

**Pass criteria:** The individual must understand the message in all 3 scenarios

2. Instruction spoken at a normal speech level in brake coach with individual by the handbrake wheel and assessor at door at far end of coach, doors open

**Pass criteria:** The individual must understand the message

3. Instruction in a normal tone approximately 1m away from the individual, whilst stood adjacent to a locomotive (diesel engine revving or steam engine blowing off) outside in a platform area. This is carried out twice;
  - a. in front of the individual
  - b. directly behind the individual

**Pass criteria:** The individual must understand the message in both scenarios

4. Instruction at a normal speech level with individual on Moor Road ground frame and assessor on platform

**Pass criteria:** The individual must understand the message

5. Instruction at normal speech level with individual on ground 12-15m away and assessor on locomotive

**Pass criteria:** The individual must understand the message

6. Communication over radio

**Pass criteria:** The individual must understand the message and provide appropriate responses

7. Communication with mobile phone

**Pass criteria:** The individual must understand the message and provide appropriate responses

8. Horn/whistle with locomotive positioned at Moor Road foot crossing, with individual having their back turned to locomotive, raising arm when hear horn/whistle, tested;
  - a. mid-length of platform
  - b. South-West corner of engine house

**Pass criteria:** The individual must be able to hear both audible warnings

The workplace hearing assessment will be carried out by a senior engineer and must ensure that the messages are spoken clearly and in a normal voice. A verifier is required who will confirm that, in their opinion, the individual being assessed has responded in a way that is consistent with them understanding the message. In the event of the assessor and verifier not agreeing, the part of the test with disagreement shall be repeated once.

For a successful workplace hearing assessment, the individual must pass all tests and this must be confirmed by the verifier.

Name of person being assessed: .....

Date of assessment: .....

Assessor Name: .....

Verifier Name: .....

			Verified
<b>1</b>	Instruction spoken in a normal tone approximately 1m away from the individual, outside in a platform area		
	<b>a</b>	In front of individual, slightly to the right	PASS / FAIL
		<i>“Redacted”</i>	
	<b>b</b>	In front of individual, slightly to the left	PASS / FAIL
<i>“Redacted”</i>			
<b>c</b>	Directly behind individual	PASS / FAIL	
	<i>“Redacted”</i>		
<b>2</b>	Instruction spoken at a normal speech level in brake coach with individual by the handbrake wheel and assessor at door at far end of coach, doors open		
		<i>“Redacted”</i>	PASS / FAIL
<b>3</b>	Instruction in a normal tone approximately 1m away from the individual, whilst stood adjacent to a locomotive (diesel engine revving or steam engine blowing off) outside in a platform area		
	<b>a</b>	In front of individual	PASS / FAIL
		<i>“Redacted”</i>	
	<b>b</b>	Directly behind individual	PASS / FAIL
<i>“Redacted”</i>			
<b>4</b>	Instruction at a normal speech level with individual on Moor Road ground frame and assessor on platform		
		<i>“Redacted”</i>	PASS / FAIL
<b>5</b>	Instruction at normal speech level with individual on ground 12-15m away and assessor on locomotive		
		<i>“Redacted”</i>	PASS / FAIL
<b>6</b>	Communication over radio		
		<i>“Redacted”</i>	PASS / FAIL
<b>7</b>	Communication with mobile phone		
		<i>“Redacted”</i>	PASS / FAIL
<b>8</b>	Horn/whistle with locomotive positioned at Moor Road foot crossing, with individual having their back turned to locomotive, raising arm when hear horn/whistle		
	<b>a</b>	Mid-length of platform	PASS / FAIL
	<b>b</b>	South-West corner of engine house	PASS / FAIL

<b>Assessment Outcome:</b>	PASS / FAIL
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Assessor Signature	Verifier Signature	Candidate Signature