

Note on use of signalmen on the Kent and East Sussex Railway and their potential use on the Missing Link

1. Evidence was given by Mr Keay regarding the role of railway signalmen in relation to level crossing safety. An Interested Party asked whether such signalmen would be employees of KESR or volunteers.
2. Signalmen and Crossing Keepers on the K&ESR are part of the Operating Department. There are currently 43 signalmen and 45 crossing keepers in place, all of whom are volunteers. Trainees normally start as crossing keepers and with experience develop as signalmen.
3. The above numbers include three signalmen who are employed on the mainline and volunteer on the K&ESR.
4. In the event of K&ESR introducing employed signalmen, both paid staff and volunteers would be subject to the identical training and competency regime.
5. There is a small turnover of staff as retirees are replaced by new staff.
6. The duties of signalmen on the K&ESR are the same as those on the mainline railway, proportionate to the relative scale of the (slower and less frequent) heritage railway operations.
7. The management of signalmen competence is through the KESR Operating Standards Manual - "OSM 05 Competence Management System – Signalmen" (copy attached) covering but not limited to - medical fitness, induction, training, examinations, and competence assessments.
8. The competency process in place on the K&ESR is appropriate to the scale of the K&ESR operation with oversight from the Office of Rail and Road (ORR) as part of the ORR safety monitoring role.



OPERATING STANDARDS MANUAL

OSM 06


COMPETENCE MANAGEMENT SYSTEM - SIGNALMEN



Issue 01 March 2020


This Standard prescribes the Management of Safety on the Kent & East Sussex Railway

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Issue 01	March 2020	P. Salmon	Chief Signalman	Operating Manager	
Issue 01	March 2021	P. Salmon	Chief Signalman	Operating Manager	Reviewed, no change.

This Standard will be updated as necessary by distribution of a complete replacement.

Responsibilities and distribution

The following officers will keep controlled copies of this Standard:

Operating Manager

Signalling Inspector

Implementation and review

The provisions of this Standard are mandatory and apply from the date of issue in all respects.

This standard will normally be reviewed one year from the aforementioned date or before as may be required.

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I Introduction

All trainees typically begin by training as a Crossing Keeper through practical sessions with a qualified Crossing Keeper.

Signalling training is provided by an integrated scheme of theoretical and practical learning.

This document brings together the procedures adopted and lists in appendices the materials used in the duration of the trainees' progression.

2 Competencies

The Signalling Department covers a number of competencies. These are as follows:

1. Trainee Signalman/Crossing Keeper
2. Crossing Keeper
3. Signalman
4. Pilotman
5. Hand Signalman
6. Point Operator
7. Point Winder
8. Frame Operator

3 Medical Fitness and Age Requirements

Trainees will conform to medical requirements specified in K&ESR Operating Standard 2/97 Medical Fitness Standards for Operating Staff in Safety Critical Posts and K&ESR/POL/213 Drugs and Alcohol Policy.

All new entrants to the Signalling Department will initially complete a self-assessment medical form followed by a full medical examination prior to qualification. Where a medical issue is identified on the Self Certification Form or if the Signalling Inspector has concerns about a person's ability to perform Safety Critical Work for health reasons, that person will undertake a full medical examination before commencing training.

Crossing Keepers must be at least 18 years of age.

Signalmen must be at least 18 years of age.

Additionally, those over 75 years of age are subject to annual review in accordance with K&ESR/POL/215 Retirement of Safety Critical Operating Staff.

4 Responsible Persons

The Operating Manager shall appoint a Signalling Inspector (SI), whom it is considered has sufficient practical experience and the ability to deliver training and administrative functions and whose duties shall include:

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- To maintain high standards of training and assessment of Crossing Keeper staff by the designated procedures
- To maintain high standards of training and assessment of Signalling staff by the designated procedures
- Maintain up to date training records and resources.

The SI will be assisted in these duties by a number of Assistant Signalling Inspectors (ASI) and a Training Officer. The ASI's and the Training Officer are authorised for the purpose of signing documented practical elements or carrying out other tasks.

(Appendix X.1 Family Tree – Signalling Department)

(Appendix X.2 Role Description – Signalling Inspector)

(Appendix X.3 Role Description – Assistant Signalling Inspector)

(Appendix X.4 Role Description – Training Officer)

(Appendix X.5 Role Description – Signalman)

(Appendix X.6 Role Description – Crossing Keeper)

(Appendix X.7 Role Description – Trainee Signalman)

(Appendix X.8 Role Description - Pilotman)

(Appendix X.9 Role Description – Hand Signalman)

(Appendix X.10 Role Description – Point Winder)

(Appendix X.11 Role Description – Point Operator)

(Appendix X.12 Role Description – Frame Operator)

Most staff will be involved in either formal or informal training. It is recognised that the K&ESR offers no formal instruction in teaching and training. However notes are provided at the end of this document to help anyone involved in training staff.

(Appendix X.13 The Basics of Training)

5 Training Regime

Training as a Crossing Keeper involves a small number of practical learning turns at the designated Crossing, supervised by the duty Crossing Keeper who will explain all aspects of the role. A checklist is provided to ensure everything necessary is covered, and there is also a written exercise to be completed. Examples of these are provided at Appendix X.

Training as a Signalman involves attendance at a year-long course, supplemented by learning turns in the designated signal box supervised by the duty Signalman, together with specific other practical exercises. These are described in more detail at 5.3 and 5.4.

5.1 Induction

Before commencing, a trainee will receive a Starter Pack including the Rules, Regulations & Instructions, the Volunteer Handbook, a Registration form and a Self-Assessment Medical form.

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The trainee will then attend an Induction which will include a tour of the Railway, information on First Aid and welfare facilities and an explanation of safety procedures.

(Appendix X.14 New Volunteers Induction Checklist).

5.2 Basic Railway Safety

Before undertaking practical duties, a trainee must complete the K&ESR Basic Railway Safety course. This includes the K&ESR Drugs and Alcohol Policy and the Mobile Phone Policy. Marked assessment papers will be kept by the SI in the trainee's personal file.

5.3 Theoretical Training

The year-long course comprises eleven modules covering the essential knowledge to work a signal box safely and efficiently. These modules are delivered via Skype and make use of video and Powerpoint wherever possible. They are supplemented by quarterly classroom revision sessions, which include the opportunity to practise scenarios on a model railway. A summary of this programme is provided at Appendix X. Detailed course notes are provided at the end of each module, supplemented by electronic workbooks, to assist revision. Each module is then followed by a written test, to enable both trainers and trainees to establish the progress made. At the end of the course, there is a formal, written exam.

5.4 Practical Training

Trainees are rostered a minimum of ten learning turns in their designated signal box. During these turns they will learn how to operate the signal box. In addition, they will complete written exercises designed to enable them to apply the theory learned on the course to the practical circumstances of the designated signal box and to prepare them for the situations they will encounter once qualified. They will also be separately rostered for group practicals to learn the other specific skills required, including clipping and scotching points, lighting and servicing oil signal lamps, and acting as a Pilotman. They are also given a private trip down the line in the DMMU to see everything from the Driver's point of view, site visits to the areas covered by each station, and at least one steam footplate ride along the line.

6 Assessment, Examination and Recording Regime

When trainee Crossing Keepers and their supervisors consider they are ready, a passing-out turn is arranged. During this turn, the ASI assesses their performance, supplemented as necessary by oral questioning. Provided they have demonstrated they are competent, they are then qualified to work as Crossing Keepers.

The assessment of trainee Signalmen is performed jointly by the Training Officer and the ASI through a combination of evaluation by the duty Signalmen, observation, oral questioning and theory tests. They will use these to monitor progress through the regime, thus ensuring all relevant skills have been observed and all aspects of the duties of the grade have been covered. This process is described more fully at 6.1 – 6.4 below.

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6.1 Written Reports

During every learning turn, the duty Signalman will complete an assessment sheet showing the activities attempted, the degree of supervision and the level of competence attained. A copy of this sheet is provided at Appendix X.14. These, together with copies of the completed written exercises, are kept on file.

6.2 Oral Questioning

At regular intervals the Training Officer and ASI will use oral questioning of trainees to evaluate progress and identify training needs.

6.3 Rules and Theory Examination

When the training course has been completed, the Training Officer will arrange for trainees to sit a final exam.

Exam papers and results will be kept in the individual's file. Progression to undertake a passing-out turn requires a score of at least 80%. Where this level is not achieved, the opportunity to re-sit the exam is usually offered.

6.4 Passing-out Turn

When trainees have passed their exam, have completed all practical exercises, and they, the Training Officer and the ASI all consider they are ready, they will be put forward for a passing-out turn with the SI.

The trainee will perform all functions of the Signalman. The SI will use the "Signalling Practical Exam" to record the results of the turn. This document will be kept in the individual's file along with a recommendation for further training if the trainee has failed to pass all the indicated points.

6.5 Learning an Additional Signal Box

Learning an additional signal box is dependent on ability, suitability, knowledge and experience, as well as sufficient availability. The decision to start learning an additional signal box is taken in conjunction with the SI.

6.6 Signalmen from other Railways

There may be circumstances when a Signalman from Network Rail or another railway wishes to join the K&ESR.

Such a Signalman will be offered the opportunity, if appropriate, to sit the exam without attending the course. All other elements of the training programme, however, will still be required to be completed.

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7 Rostering, Notices and Personal Equipment

7.1 Rostering

Signalling staff are rostered using the online system with rosters produced on a three- monthly basis, with the roster clerk circulating a request for availability in advance. Copies are distributed by post to those staff who cannot access the internet. A copy is posted in all signal boxes. All Signalmen must complete a minimum of three turns per annum to maintain competence. Signalmen qualified to work more than one box must complete a minimum of one turn per box per annum and not less than three turns in total per annum.

Anyone not meeting the minimum quota will require reassessment.

7.2 Notices

Traffic, Operating, and any other special notices requiring the attention of Signalling staff are placed on the notice boards in all signal boxes. Operating and Traffic notices are also posted on the HOPS website and circulated by email to allow staff to read and absorb them in advance of duties. Signalmen are required to give written confirmation they have read and understood Operating Notices.

7.3 Personal Equipment

The starter pack informs trainees of the personal protective equipment and other items they will need to provide before they commence practical training. HV vests are provided by the Railway.

8 Ongoing Competence Assessments

The ASI aims to visit all Crossing Keepers at least once a year to monitor their performance and check they remain fully competent.

The SI will arrange for regular visits on all Signalmen in accordance with the Signalman's risk assessment. This will include an unannounced box visit. Records will be maintained using the Box Inspection form.

(Appendix X.16 Signalman's Box Inspection Form)

The ongoing competence assessments for Signalmen must take into account the various signal boxes the member is passed as competent to work.

A full quinquennial competence assessment will include:

- Global assessment of the core Rules, Regulations and Instructions;
- Assessment in the specific boxes the candidate works;
- Additional Signalling competencies the candidate holds.

In addition further assessments may be carried out if the need arises to cover specific parts of the duty where the SI deems there is a need to monitor part of the individual's performance. In these cases it is not necessary to complete a full assessment; however, any such assessments must be recorded.

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If an individual has not worked a turn within any twelve month period an Inspector must carry out a competence assessment as part of the first duty they work.

The aim of the assessment is to ensure the promotion of high standards through encouragement, understanding, training, refreshing and continuous improvement.

The aim of the process is to enable staff to attain 'competence proven' allowing the five yearly re-issue of the Certificate of Competence.

If competence is not proven in any criterion that could compromise safety, either to themselves or to others, or that would damage equipment or Company property, then the individual's Certificate of Competency must be withdrawn until competence is proven.

An improvement action plan must be formulated which details the areas of concern and the method to be used to re-establish competence together with the monitoring process to ensure the maintenance of competence. The action plan should be laid out to a set period with a review at the end of that period in order to decide whether the individual is to return to the normal assessment process or not.

Each assessment must conclude with a review session that should include positive feedback from the assessor as to whether the individual has achieved the standard or more work is required.

When competence has been proven in each part of the assessment, the assessor and the Signaller will sign off the end sheets of each part of the assessment. The Certificate of Competence card can then be re-issued.

This knowledge and its practical application are the minimum that an individual must achieve to enable issue/reissue of the Certificate of Competence. Section 8.1 sets out the methods that will be used when assessing.

8.1 Methods of Assessment.

- (i) *Direct Observation* - direct observation of practical skills, which incorporates all activities of the duty being assessed.
- (ii) *Questions and answers* - these are normally verbal, but can be written if required. The assessor must ensure that competence and confidence is achieved in these areas.
- (iii) *Simulation* - simulation will normally be carried out in the actual working environment of a signal box to ensure realism. Classroom simulations can be employed to reinforce rule book changes or rarely used aspects of the RRs.
- (iv) *Passive Monitoring* – completion of a Self Assessment Form.
- (v) *Statement of Readiness for Duty* – each Signaller will “self-certify”, by signing a “Statement of readiness for Duty” sheet, that they are in a fit condition for duty, that they have all the publications and equipment that they require and that they have read any special notices appertaining to their duties for that day.

(Appendix X.17 Self Assessment Form)

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8.2 Signalman's Risk Register

It is an accepted principle that Signalmen who are involved in or have been responsible for certain incidents, are over a certain age or are newly qualified are more likely to be at risk of a safety critical incident in the future.

On at least an annual basis or when specially required, the Inspectors will meet formally to discuss the safety rating of all Signalling staff.

The aim of the meeting is to identify any staff requiring additional assessments or action plans after qualification, illness, traumatic event or incidents and to assist those who have been involved in such incidents to avoid being involved in a further incident.

It is important to realise that this is not a disciplinary process. It is a safety process.

Once an individual is identified as being at risk of exposure to a safety critical incident, the meeting will determine whether the individual requires additional assessments, training or an Improvement Action plan.

The Risk Register will be maintained by the SI.

8.3 Improvement Action Plans

The main aim of an action plan is to prevent recurrence and to improve performance. An action plan must, in all cases, be preceded by a thorough investigation of the matter, highlighting basic and root causes. The process must include an interview with the person concerned, in private, away from the working environment. This should be supported by reports that include conclusions and recommendations.

The action plan must be developed from the recommendations and be initiated as soon as possible. It must be comprehensive and be achievable.

The individual must be fully briefed on the requirements of the action plan and be committed to its successful outcome.

The action plan must be fully documented and signed for by both the Inspector and the individual.

When formulating action plans, the following requirements might be considered:

- Additional Assessments;
- Assessment of Rules, Regulations and Instructions' knowledge;
- Retraining or refreshing where deficiencies in competence are identified;
- Personal improvement plans involving the reading of documents, such as the Rule Book;
- The need to withdraw the certificate of competence.

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9 Incidents and Disciplinary Procedure

9.1 Operating Incidents

In the event of an incident staff involved must submit a report on the appropriate form to the Operating Manager. All reports should be submitted before booking off duty.

9.2 Investigation of Operating Incidents

Certain incidents are reportable to the Rail Accident Investigation Branch and the Office of Rail and Road. In some cases incidents must be reported immediately. Details of what needs to be reported, to whom and when, as well as the procedure for dealing with incidents, can be found in the K&ESR Incident Manual which is provided in signal boxes.

In the event of a SPAD, collision or other serious incident where the actions of the Signaller are called into question, the Signaller must be relieved pending investigation at the soonest opportunity.

In cases of serious incident an internal investigation will be carried out by the SI or his appointed deputy.

In extreme circumstances RAIB and ORR may also carry out their own investigations.

9.3 Formal Disciplinary Procedure

If it is decided formally to discipline a member of Signalling staff, action will be taken in accordance with the K&ESR Disciplinary Procedure (POL 218).

Staff involved in serious incidents may be relieved from duty or excluded from railway premises pending investigation.

9.4 Re-Instatement

Following an incident and prior to re-instatement, the SI will discuss the incident with the individual. The SI may decide to perform a competence assessment as part of the re-instatement process. A note of any action taken would be recorded on the individual's personal file

10 Appendices

Attached to this document are full copies of the reports, forms and other documents listed as Appendices.