HERITAGE RAILWAY ASSOCIATION

GUIDANCE NOTE

SHUNTING; Including Coupling & Uncoupling

Purpose
This document describes good practice in relation to its subject to be followed by Heritage Railways, Tramways and similar bodies to whom this document applies.

Endorsement
This document has been developed with, and is fully endorsed by, Her Majesty's Railway Inspectorate (HMRI), a directorate of the Office of Rail Regulation (ORR).

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1. Introduction
   A. This Guidance has been provided to assist the duty holder of heritage railways, tramways and similar bodies in meeting the requirements for safe operation in their Safety Management System (SMS) as required under the Railways and Other Guided Transport Systems (Safety) Regulations 2006: SI 2006 / 0599 (ROGS).
   B. There is no doubt that shunting on any railway, including heritage lines, is a potentially dangerous operation and this Guidance Note has therefore been prepared to assist in the formation of a safe system of working.
   C. Duty holders will be aware that they have a legal obligation to passengers, contractors, other visitors and staff under the Health and Safety at Work etc Act, 1974.
   D. The term ‘man’ or ‘men’ in this Guidance note should be read as applying equally to men and women and ‘he’, ‘him’ and ‘his’ should be similarly interpreted.
   E. The term ‘staff’ in this Guidance note should be taken to include unpaid volunteer workers as well as paid staff.
   F. The term ‘railway’ should be taken to include heritage tramways and similar bodies where appropriate.

2. Recommendations
   A. This guidance note is issued as recommendations to duty holders.
   B. Many railways are already operating systems, which, in some cases, are to a higher standard than those set out in this guidance note. This highlights the fact that it is the responsibility of the duty holder, having undertaken the necessary risk assessments, to implement controls that are applicable and necessary relative to the operating conditions on their railway.
   C. Where railways decide to take actions that are not in conformity with these recommendations, following appropriate risk assessments or for other reasons, it is recommended that those decisions are reviewed by the senior management body of the organisation and a formal minute is recorded of both the decision reached and the reasons for reaching it.

3. Risk Assessment
   A. The duty holder should arrange for a risk assessment to be undertaken of all possible shunting operations at stations and in yards and sidings. Such assessments should include issues such as:
      1. Movements which are to take place on a gradient
      2. Shunting after dark, in conditions of reduced visibility and in foul weather conditions.
      3. Ensuring the protection of running lines at all times
   B. The results of these Risk Assessments should be used to determine the application of control measures to reduce the risks to a level ‘As Low As Reasonably Practical’.
   C. Risk assessments should be reviewed on a regular basis.

4. Operating Rules
   A. The principal Rules governing shunting operations should be clearly defined in the Operating Rule Book. When necessary these should be supplemented by detail in the Appendix to the Working Timetable, Local Instructions or appropriate publications.
   B. Where staff, such as catering teams or cleaners, wish to board vehicles in sidings to prepare for service or to stay aboard while the train is put back in a siding; the carriage of any such personnel should be subject to a defined safe system of work which includes informing the shunter of their intentions and the requirement to stay safely aboard the train until all movement has ceased.
5. Competence & Minimum Ages

A. All persons involved in shunting duties are classed as being Safety Critical and must therefore have been assessed and approved as being competent and fit for the duties involved. Such persons include Locomotive Crew, Guards, Shunters, Signalmen and Ground Frame Operators. Station staff should be included if their duties include attaching or detaching vehicles to/from a train. The minimum age for Shunters should be 18 or over.

B. “Young Persons” aged 16 or 17 may be allowed to couple or uncouple vehicles and operate ground frames but only under direct supervision as these are safety critical tasks.

6. Personal Safety of Shunters

A. The duty holder should define whether good colour and distance vision, fitness for walking on uneven ground and capability of lifting buckeyes are requirements for their shunters, and then provide appropriate training and assessment.

B. Shunters should be provided with high visibility clothing, suitable protective footwear and suitable gloves. For standard gauge operations consideration should be given to the provision of a hard hat or bump cap for use when it is necessary to go between vehicles to couple or uncouple.

C. A shunting pole should ideally be provided for use with loose coupled vehicles.

D. Shunters MUST NOT ride on brake sticks or shunting poles spragged into a wagon frame, spring or any rigging which forms part of the wagon.

E. Shunters should not ride on vehicles unless a safe method of doing so has been provided and in particular should not ride on the steps of a moving locomotive. Safe places include the locomotive footplate or cab, on the running plates of a locomotive fitted with guard rails, on steps of a locomotive fitted with a suitable recess or on a special shunters vehicle (e.g. ex GWR) if one is provided.

F. Shunters must not ride on the outside of moving vehicles.

7. Visibility and Communications

A. If the sight of the portion of train being moved or any of the persons involved is lost or if radio communication fails, the movement should stop until adequate visibility or communication is restored. If a radio is used for communication the shunter should continue to talk throughout the movement so that the loco driver is aware that the channel remains open. The only exception that should be allowed is if the radio is fitted with a confidence tone.

B. All staff involved in a movement must ensure that any mobile phone they have with them which is not part of the operator’s shunting system is switched off.

8. Pre-Movement Briefings

A. It is important that all persons involved (Locomotive Crew, Shunters, Guards, Signalmen / Ground Frame Operators) have a clear understanding of the moves required and the method of communication (hand /lamp signals, audible or radio) to be used.

B. If a long and complicated move is involved, it is good practice to divide the move into two or more stages.

C. If a movement involves occupying a block section or over any level crossing the requirements of any appropriate Train Signalling Regulations should be observed.

D. Only one person should be in charge of shunting operations and should it be necessary to change this person during the operation there must be a clear understanding by all concerned that such a change will take place and all associated train movements must cease during the change.
9. Checking of Vehicles

A. Before any movement is made a careful check should be made that all vehicles are safe to move. Such checks should include checking:

1. That there are no passengers left on the train if it has just come out of passenger service;
2. That there are no persons working on or near vehicles to be moved;
3. That vehicles are not foul of each other or any adjacent line or equipment;
4. The application of any hand brakes
5. The presence of any scotches or derailers.
6. The presence of battery charging cables, fridge driving power cables, and tank hoses.

B. It is also important to check and advise any persons working on or near vehicles to which it may be necessary to “buffer up” against during an operation.

C. Particular care and attention should be paid if it is necessary to move any vehicle either under repair or awaiting restoration.

D. If a vehicle is displaying a “NOT TO BE MOVED” board, this board must not be removed or the vehicle moved without the authority of the person who placed the board on the vehicle or someone authorised to act on their behalf.

10. Speed of Shunting Moves

A. The speed of shunting movements should never exceed walking pace (less than 5 mph) and should be further reduced when necessary – such as when approaching other vehicles for coupling up.

B. Sufficient time should be allowed for shunting in order to avoid any rushing that can lead to accidents.

11. Method of Signalling / Communication

A. Signals from shunter to loco and signalmen may be by hand lamp after dark or in conditions of reduced visibility combined with audible signals (whistle or shunting horn) if necessary. Radios may be used provided that:

1. all persons using radios are competent in their operation and trained in critical communication by radio;
2. all the radio users have a unique call sign so that no confusion can arise over who an instruction is directed to; and
3. the radio used by the shunter is not an encumbrance.

B. If radio communication suffers from interference to the extent that clear communication is not possible, its use should be discontinued.

C. The standard hand and lamp signals, as laid down in the operator’s Rule Book, must be used at all times.

D. All concerned should be reminded of the need to observe fixed signals, which includes Limit of Shunt boards, where these are provided.

E. It is important to remember that it may not always be possible for the crew of a locomotive to hear whistle signals above the noise of the diesel engine or the use of the injectors or safety valves lifting on a steam loco. The use of a shunting horn should be considered, but these and whistle signals should be regarded as an aid to hand or lamp signals not an alternative.
12. **Coupling and Uncoupling**

The following should be included in the duty holder’s Rule Book:

A. When vehicles are being brought together to couple up the locomotive should be stopped approximately two metres from the stationary vehicle(s) before being signalled forward at slow speed.

B. The shunter must never go between vehicles to couple or uncouple until all movement has ceased and he must ensure that the loco crew are aware of the fact that he is doing so.

C. The shunter must never remain between vehicles during an ease-up movement.

D. Where there are piped automatic brakes then:
   1. when uncoupling it is the brake pipe that should be disconnected first, and
   2. when coupling the brake pipes should be connected last.

E. If it is necessary to stop vehicles to adjust buck-eye couplers before coupling up this should be done so they stop a safe distance (at least two metres) apart. The shunter should not attempt to make adjustment until all movement has ceased.

F. Coupling and uncoupling on curved track needs special attention. If attaching to a vehicle on a curve, consideration should be given to the need for slackening the screw coupling to be used. When using a slack coupling to attach on curved track the coupling should be tightened as soon as practicable.

G. Where one engine is being removed from one end of the train and a second engine attached at the other end of the train an agreed safe system of work should be defined and followed.

13. **Loco Crew**

A. The crew should work only to signals given by the shunter with the exception of a “stop” signal which may be given by any person observing a potential danger.

B. The crew should maintain a constant lookout in the direction of the movement.

C. If a fixed signal (where provided) is cleared for a movement, they must not start such a move unless or until so authorised by the shunter.

14. **Movements into a Building or approaching a Work Site**

A. Movements should stop two metres from the entrance to a building or worksite. The shunter should go forward to check if all is clear and warn anyone working within of the impending move. The loco whistle or horn should be sounded when entering.

B. If movements into a building in which work is in progress occur on a regular basis, consideration should be given to the provision of an audible alarm warning which can be initiated by the shunter.

15. **Checking During Moves**

A. All involved in shunting operations should be reminded that they have a joint responsibility for ensuring that points are correctly set for the move that is to take place, particularly trailing unsprung points controlled by ground frame or signal box, and that they are aware of the need for extra care at fouling points and when passing vehicles on an adjacent line.

16. **Potential Hazards during Shunting**

A. These could include movement of points, ground conditions, oil contamination, obstructions, slippery (wet or frosty) sleepers, poor visibility and weather conditions.

B. Beware of any uncoupling which may be required on a gradient, and always ensure that any vehicle is in a stable and safe condition with hand brakes and scotches, if appropriate, before being left.

C. Shunters should check on the stability of any load not wholly contained within a wagon (e.g. sleepers on a flat wagon) prior to movement.
17. Movements by other Methods

A. The movement of vehicles by chain or rope from a loco on an adjoining line or by horse MAY be authorised in special circumstances in local instructions PROVIDED that a risk assessment has been undertaken to cover such circumstances.

B. Chains which are used for shunting purposes MUST NOT also be used for lifting operations.

C. Any shunting by hand should be subject to a task-specific risk assessment.

D. Moving vehicles using a prop or pole against a locomotive or any rail or road vehicle should be prohibited at all times.

18. Conclusion of Movement

When a shunting move is complete the shunter should make sure that:

A. That all vehicles are stabled in such a position that they are not foul of vehicles on an adjoining line and are clear of any points which may need to be moved for subsequent operations.

B. Vehicles are suitably secured by handbrake, where fitted, or scotches (do not rely on an automatic brake to secure any vehicle).

C. Scotches, if used, should be correctly profiled to fit between wheel and rail, in good condition and correctly fitted.

D. If a vehicle or vehicles are left on a running line (e.g. on a platform line against a buffer stop) a red light lamp (lit after dark or in conditions of reduced visibility) should be placed on the end of the vehicle facing any subsequent movement. A red flag or tail board may be used in daylight. The Duty Holder should consider the need for a similar instruction to apply to vehicles which may be stabled on a running loop.

19. Manning of Diesel Locomotives when Shunting

This is for management to decide having undertaken a risk assessment. The following may be helpful:

A. If a locomotive is provided with "dual controls " so that it may be operated from either side of the cab then one man, the driver, may be considered to be sufficient.

B. If however a loco is not so fitted it may be considered sensible to provide a second man in order to ensure maintenance of a good look-out from both sides.

C. If a loco has a cab at each end, it is recommended that, where practicable, the locomotive should be controlled from the end nearer to the direction of travel.

20. References

A. Railway Safety Publication 3; “Safe Movement of Trains” (RSP3), Office of Rail Regulation
