



## **ATOC Guidance Note – Developing Train Driving Policies Aligned with Non- Technical Skills**

### **Synopsis**

This document provides guidance on developing train driver driving policies.

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## Part A

### Issue Record

Issue	Date	Comments
One	November 2013	Original Document
Two	April 2016	Periodic update

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### Responsibilities

Copies of this Guidance Note should be distributed by ATOC members to relevant persons within their teams/businesses.

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### Explanatory Note

ATOC produces ATOC Guidance Notes for the information of its members. ATOC is not a regulatory body and compliance with ATOC Guidance Notes is not mandatory.

ATOC Guidance Notes are intended to reflect good practices.

ATOC members are recommended to evaluate the guidance given against their own arrangements in a structured and systematic way. Some parts of the guidance may not be appropriate to their businesses. It is recommended that this process of evaluation and any subsequent decision to adopt (or not to adopt) elements of the guidance should be documented.

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### Supply and Contact Details

Copies of this Guidance Note may be obtained from the ATOC members' website – [www.atoc.org](http://www.atoc.org)

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## Part B

### 1. Purpose

This document seeks to provide operations standards practitioners with a set of guidance that may be used when reviewing and updating existing driving policies, or indeed creating new ones. This document provides guidance to Railway Undertakings on developing train driving policies aligned with non-technical skills.

### 2. Scope

This Guidance Note applies to all ATOC Members. The guidance is not intended to cover traction-specific issues, nor is it intended to supplement competency assessment processes.

### 3. Definitions

AB	Absolute Block
ATOC	Association of Train Operating Companies
AWS	Automatic Warning System
BR	Banner Repeater
D & A	Drug & Alcohol policy
DOO	Driver-Only Operation
DRA	Driver's Reminder Appliance
Driving Policy	The refers to the document, sometimes called a Professional Driving Policy, that RUs have historically used to capture lifestyle, etiquette and non-Rule Book related train driving protocols
ESR	Emergency Speed Restriction
GPL	Ground Position Lights
H&S	Health & Safety
L-O-S	Limit-Of-Shunt
NTS	Non-Technical Skills
PNB	Physical Needs Break
POSA	Proceed On Sight Aspects
PPE	Personal Protective Equipment
(P)RI	(Preliminary) Route Indicator
PSR	Permanent Speed Restriction
PTI	Platform Train Interface
RSSB	Railway Safety and Standards Board
SAS	Starting Against Signal
SOY	Starting On Yellow
SPAD	Signal Passed At Danger
TOC	Train Operating Company
TSR	Temporary Speed Restriction

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### 4. Introduction

#### 4.1 Background

The intention of this guidance is also to ensure that policies reflect current best practice, so that where appropriate, best practice can be incorporated into training and assessment processes. This means, therefore, that this guidance should be read in conjunction with the latest research from RSSB.

In simple terms, the guidance recommends an approach to take when structuring a driving policy. This is based on good practice identified during reviews of current and historic policies and good practice identified in RSSB documentation. As such, a structured checklist is included in this guidance for Railway Undertakings to use when updating, refreshing or creating new driving policies.

#### 4.2 Non-Technical Skills

##### 4.2.1 What are Non-Technical Skills?

Non-technical skills (NTS) are generic skills that underpin and enhance technical tasks, for example – train driving. These skills could include the ability to take in information, focus, take decisions and communicate with others. NTS play a vital role in safety by helping people anticipate, identify and mitigate errors.

##### 4.2.2 How do NTS differ from technical skills?

Technical skills	Non-technical skills
Specific: Applied to specific rules and procedures	General: Applied to a range of rules and procedures, complement technical skills
e.g. Able to read and understand traction ammeter	e.g. Shows alertness and vigilance when approaching known hazards

##### 4.2.3 Why are NTS important?

Reviews of incidents and accidents in the industry have shown consistently that where NTS are lacking, the ability to prevent and mitigate errors is compromised and so contributes to the incident taking place. NTS have been a key focus in other safety-critical industries for many years. By taking a proactive approach to NTS development and integrating NTS into competence management systems and training programmes it is expected that safety will improve.

##### 4.2.4 How to know which NTS are relevant?

- Repertory grid technique
  - Think of one great member of staff and one not so good. What is the difference?

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- Critical incident technique
  - Think of a critical time, what skills or knowledge made it a success/failure?
- Task analysis
  - Think of all the tasks a person is required to carry out. What skills are needed to do these in a safe and efficient way?

### 4.2.5 Breakdown of task analysis

1. gather information on the role and individual tasks;
2. break down into series of detailed subtasks; and
3. identify relevant technical and non-technical skills, and observable examples.

The table below illustrates this sequence of activities.

Goal or sequence	Task	Sub-task	Technical skill and marker	Non-technical skill and marker
What is the person trying to achieve?	What must the person do to achieve the goal?	What are the specific steps the person must undertake to complete the task?	The underlying technical skills required to perform the task correctly.	Skills required for successful completion that are not technical.

### 4.2.6 List of Non-Technical Skills

NTS category	NTS skill
Situational awareness	Attention to detail Overall awareness Maintain concentration Retain information (during shift) Anticipation of risk
Conscientiousness	Systematic and thorough approach Checking Positive attitude towards rules and procedures
Communication	Listening (people not stimuli) Clarity Assertiveness Sharing information
Decision-making and action	Effective decisions Timely decisions Diagnosing and solving problems

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Cooperation and working with others	Considering others' needs Supporting others Treating others with respect Dealing with conflict/aggressive behaviour
Workload management	Multi-tasking and selective attention Prioritising Calm under pressure
Self-management	Motivation Confidence and initiative Maintain and develop skills and knowledge Prepared and organised

### 5. Guidance on Structure

#### 5.1 Generic guidance

The guidance note recommends that the driving policy is divided into eight core sections which should be designed to broadly reflect a day in the life of a train driver. Reflecting the sequence of events during an average day is a more natural way of presenting the information and hence it is more likely to be studied or referenced by drivers. These sections may then be broken down into different and more detailed topic areas related to more specific driving tasks and addressing the NTS associated with these tasks (see section 5.2). The sections are:

1. Non-Technical Skills (overview)
2. Lifestyle and preparation for duty
3. Starting off
4. On the move
5. Stopping
6. Rest breaks
7. Responding to signals
8. Out of course events
9. End of duty

It is recommended that each topic is designed as a chapter in its own right within the driving policy and is colour-coded for ease of reference and illustrated accordingly. Following the structure highlighted below could help to ensure consistency in information provision.

<b>Picture/illustration</b> A visual representation of the topic	<b>Why</b> Why is it important to understand and carry out the instructions and guidance
<b>How</b> Bullet points with instructions or guidance	<b>Non-Technical Skills</b> Behaviours relevant to the topic. Advice and tips

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### 5.2 Situational Guidance

The table below lists the more specific and detailed topic areas for inclusion in a driving policy.

Core sections	Topic areas/specific tasks
Non-Technical Skills	What are NTS? Why are they important? How are they incorporated into the driving policy?
Lifestyle and presentation	Personal lifestyle Fatigue Personal preparation Professional preparation
Starting off	Cab environment Raising vigilance awareness levels before moving off Starting a train Shunting
On the move	Train handling (inc. eco driving) Defensive driving Use of the warning horn Braking technique Empty Coaching Stock Driving onto depots Driving under instruction/conducting Attaching/detaching in stations Communication
Stopping	Station stops Terminal platforms Non-station stops DRA
Rest breaks	Refreshments Relaxing Considerations for next turn
Responding to signals	Restrictive aspects Route indicators Other signal indications
Out of course running	Seasonal considerations Degraded working Emergency situations
End of duty	Remaining vigilant towards the end of a shift Security and disposing of train Reports Booking off



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### 5.3 Aligning Situational Guidance with NTS

The table below makes recommendations on which NTS to align with driving policy core sections and topic areas/specific tasks highlighted in section 5.2 above.

The NTS and behavioural markers have been abbreviated as follows:

- Situational Awareness (SA)
- Conscientiousness (CS)
- Communication (CM)
- Decision-making and Action (DMA)
- Co-operation and working with others (Co-OP)
- Workload Management (WL)
- Self-management (SM)

The order of items included in the table below is a recommendation to Railway Undertakings on the order in which to structure a driving policy, as explained in section 5.1. Certain elements will not be applicable to some Railway Undertakings. As such, elements are listed as 'core' or 'non-core'.

Item	Core or Non-core element (C or NC)	Non-technical skills applicable	Comments or suggested items for inclusion in the policy
Non-technical skills and behavioural markers	C	n/a	
Purpose	C		To include rationale
Scope	C		All those who drive TOC trains, inc. Driver Managers
5 key principles	NC		These exist in some policies
Lifestyle/fatigue/D&A	C	CS/SM	Use RSSB material and reference to other company standards or material
Personal preparation and accountability on the day (i.e. between home and the depot)	C	CS/SM	Spectacles, personal fitness for duty check
Professional preparation	C	CS/SM/WL	Booking on, written notices, PPE, authorised walking routes, train prep (see traction manual), guidance on H&S law – what it means for employer/employee

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Cab protocols and cab environment	C	SA/CM/Co-OP	To include: <ol style="list-style-type: none"> <li>1. Cab access arrangements (inc. cab pass holders)</li> <li>2. Cab discipline for visitors</li> <li>3. Mobile communications device policy</li> <li>4. GSMR set up and use</li> </ol>
Cab set-up – reference to traction manuals	C	SA	Generic, not traction-specific
Starting a train, what are the risks <ol style="list-style-type: none"> <li>1. From a depot</li> <li>2. From a station</li> <li>3. When shunting</li> </ol>	C	SA/CM/DMA	Does your policy cover the following: Raising vigilance awareness levels before moving off DOO, dispatch processes (inc. DOO methods) and for (2) to include observing and obeying fixed aspects and SOY/SAS risks
When on the move	C	SA/DMA/WL/Co-OP/CM/CS	To include: <ol style="list-style-type: none"> <li>1. Managing distractions            Situational awareness            Distractions/repetition risk</li> <li>2. Systematic approach/don't take short-cuts</li> <li>3. Maintaining concentration – e.g. commentary-based driving</li> <li>4. Train handling (generic reference to eco driving)</li> <li>5. Acceleration techniques</li> <li>6. Observing signals/signage (inc. PSRs/TSRs/ESRs)</li> <li>7. Level crossings</li> <li>8. Tunnels</li> <li>9. Bi-directional working</li> <li>10. Running on (consecutive) cautionary aspects</li> <li>11. Use of the horn</li> <li>12. Braking techniques</li> <li>13. ECS risks (braking, different signal sequence risks from stopping service patterns, speeds, regulating – put away into loops)</li> <li>14. Light loco risks</li> <li>15. Consideration to be given to use of speed set control (where applicable)</li> <li>16. Route conducting</li> </ol>

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			<ul style="list-style-type: none"> <li>17. Driving under instruction</li> <li>18. Specific Route Risks</li> <li>19. TPWS &amp; AWS intervention/activation are included</li> </ul>
When on the move – seasonal considerations	C	SA/DMA/WL/Co-OP/CS	<p>Items to consider:</p> <ul style="list-style-type: none"> <li>1. Sunlight (summer vs winter considerations i.e. into or behind the aspect)</li> <li>2. Snow driving instructions</li> <li>3. Poor adhesion braking instructions</li> <li>4. Reduced visibility</li> </ul>
Attaching/detaching in stations (where appropriate)	NC (may not apply to some TOCs)	SA/WL/Co-OP/CM/CS	<p>Items to consider:</p> <ul style="list-style-type: none"> <li>1. Permissive aspects</li> <li>2. Stopping point</li> <li>3. Mid-platform signals risks</li> </ul>
<p>Stopping events:</p> <ul style="list-style-type: none"> <li>1. Station stops</li> <li>2. Non-station stops</li> </ul>	C	SA/DMA/WL/Co-OP/CM/CS	<p>Items to consider (1):</p> <ul style="list-style-type: none"> <li>1. Stopping pattern/schedule card (request stops)</li> <li>2. Correct braking technique for smooth stop at the designating stopping point</li> <li>3. DRA protocols</li> <li>4. See NTS – eg situational awareness</li> <li>5. Door release protocols</li> <li>6. PTI (as appropriate)</li> <li>7. Dispatch</li> <li>8. See ‘starting a train’ for SOY, SAS SPAD risks and mitigations</li> </ul> <p>Items to consider (2):</p> <ul style="list-style-type: none"> <li>1. Driving under restrictive aspects when approaching a signal at danger</li> <li>2. Consideration of speeds at given points (AWS magnets)</li> <li>3. Stopping at unusual locations</li> <li>4. Situational awareness</li> <li>5. Starting from stopping events (SOY SPAD)</li> </ul>
Restrictive aspects and route indicators	C	SA/DMA/WL/Co-OP/CS	<p>Items to consider:</p> <ul style="list-style-type: none"> <li>1. Don’t assume you know the reason for cautionary aspects</li> <li>2. Read across/target fixing</li> <li>3. Route indicators</li> </ul>

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			<ol style="list-style-type: none"> <li>4. Flashing aspects</li> <li>5. Preliminary RIs</li> <li>6. Coloured BRs</li> <li>7. Approach controls</li> <li>8. Location-specific methods of signalling (ref AB working/token exchange)</li> <li>9. Junction speeds</li> <li>10. Wrong-routing</li> </ol>
Other signal indications	C	SA/DMA/WL/Co-OP/CM/CS	Permissive working POSA Mid-platform signals L-O-S GPL Off indicators Hand signals
Approaching termination point	C	SA/DMA/WL/Co-OP/CS	Items to consider: <ol style="list-style-type: none"> <li>1. Platform length (permissive working)</li> <li>2. Buffer stop approach</li> <li>3. Changing ends/driver relief/disposal (see traction manual as appropriate)</li> </ol>
Out of course occurrences en route	C	SA/DMA/WL/Co-OP/CM/CS	Items to consider: <ol style="list-style-type: none"> <li>1. Bi-directional working</li> <li>2. Single Line Working</li> <li>3. Temporary Block Working</li> <li>4. Passing signals at danger</li> <li>5. Wrong-direction movements</li> <li>6. Modified working</li> <li>7. Assistance of failed train (n.b. not the detail)</li> </ol>
PNB	C	CS/Co-OP/SM	Items to consider: <ol style="list-style-type: none"> <li>1. What is a PNB for?</li> <li>2. Security and disposal of driving cab (environment)</li> <li>3. Items to consider during PNB</li> <li>4. Before starting journey – composing yourself</li> </ol>
End of duty	C	CS/Co-OP/SM/CM	Items to consider: <ol style="list-style-type: none"> <li>1. Maintaining vigilance towards the end of the shift</li> <li>2. Security and disposal of driving cab (environment)</li> <li>3. Submit reports/whiteboard as applicable (explain to drivers what's the risk of not doing this)</li> </ol>

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			<ol style="list-style-type: none"><li>4. Check future shift pattern/alterations</li><li>5. Complete booking-off procedure</li></ol>
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### **6. Review**

This guidance note is to be reviewed every three years.

Arrangements should be in place for reviewing the on-going effectiveness of policies, in particular, ensuring that where Railway Undertakings' operations overlap, individual company policies complement those of neighbouring Railway Undertakings.

Post-incident reviews should be considered when reviewing the effectiveness of the driving policies. Railway Undertakings should notify other Railway Undertakings of risks or areas of weakness identified in policies during post-incident review. This will ensure good practice is shared and lessons learned result in a continuous improvement cycle.

### **7. References**

RSSB: RS100: Good Practice Guide on Competence Development  
[http://www.rgsonline.co.uk/Railway\\_Group\\_Standards/Traffic%20Operation%20and%20Management/RSSB%20Good%20Practice%20Guides/RS100%20Iss%201.pdf](http://www.rgsonline.co.uk/Railway_Group_Standards/Traffic%20Operation%20and%20Management/RSSB%20Good%20Practice%20Guides/RS100%20Iss%201.pdf)

RSSB: Non-Technical Skills: Information Leaflet  
<http://www.rssb.co.uk/SPR/Documents/NTS%20Leaflet%20-%20Single%20Pages.pdf>

RSSB: Non-Technical Skills: Introduction  
<http://www.rssb.co.uk/EXPERTISE/HF/Pages/NON-TECHNICALSKILLS.aspx>