

banedanmark



ORF

Operational Rules for fjernbane

ORF-21-2 valid from 30.11.2021

Changes since previous version

IN.55

Change per 2021-11-30:

Introduction:

- the description of the procedure symbol is deleted from the Reader's instruction as these are not relevant anymore.

Roles:

- the description of Catenary manager and Catenary field leader is updated.

Definitions:

- in the definition of buffer stop is added that an ETCS stop marker is not always mounted
- it is defined that changes in train data is only allowed after the desk have been closed and the definition of train data is updated to be consistent with the ETCS Standard
- the use of cab and desk is made consequent
- at possession it's defined that the number of ETCS stop markers limiting a possession can be reduced, if point(s) can be blocked
- references to Banedanmark procedures is deleted as they are not relevant anymore
- the description of neutral section is updated to describe it correct
- the description of earthing is updated to describe it correct
- it is defined what it takes to leave a train in case of broken or hanging overhead wires
- described that the Driver is not in the front of the train in case of driving a snow clearing train
- the use of timetable and production plan made consistent. Timetable is the tool for the Driver and production plan the tool for the Signaller
- it is added that if driving is not done on a route, passenger and staff crossings are not necessarily activated
- Banedanmark response service is added under emergency services and that they are allowed to be put on track and drive in a Signaller protected area.


Procedures:

- the use of timetable and production plan made consistent. Timetable is the tool for the Driver and production plan the tool for the Signaller
- connected to an incident it's specified that it is the Banedanmark incident investigator that allows the train to continue in case of by a possible Driver error, has affected the capability of the Driver or was caused by defective rolling stock
- in case of incidents with a motorist in a level crossing it is specified the information that have to be collected, that the have to passed on to the Police and a Maintainer have to be called and the Banedanmark incident investigator is informed
- procedures for shunting routes is updated also to handle when driving is to a possession or shunting area
- the use of instructed is changed where it is not an order
- it is specified that relevant Maintainers must inspect the infrastructure after a derailment.

Reader's instructions

IN.2


Throughout the document the reader will notice that symbols have been used to identify certain statements.

IN.3  Procedure symbol. The symbol indicates that a Railway Undertaking procedure exists to support ORF e.g. procedures ensuring safe parking of rolling stock is a procedure put in place by the Railway Undertaking (RU).

IN.4  Deleted

Change per 2021-11-30:

~~Procedure symbol. The symbol indicates a procedure issued by the Infrastructure Manager. Deleted~~

IN.5  System restrictions. The symbol is used to provide information concerning system functionality, e.g. if a Driver fails to control the train to a standstill at an End of Authority, the onboard system will command a brake intervention.

Roles

RF.30

Catenary manager

RF.31 DEFINITION

The Catenary manager is a competent person who is appointed in writing to control the switching and operating condition of the high-voltage system, including conducting couplings in connection with work on or near high-voltage systems.

Change per 2021-11-30:

~~The Catenary manager is the a person competent in person charge who of is supervising appointed and in monitoring writing the to catenary control system. The switching Catenary and manager operating is condition competent of in the high-voltage regulation system, and including assesses conducting and couplings supervises in catenary connection isolations with in work all on operational or situations near high-voltage systems.~~

RF.66

Catenary field leader

RF.67 DEFINITION

The Catenary field leader is a competent person who is appointed in writing to lead and supervise work at a workplace.

Change per 2021-11-30:

~~The Catenary field leader is competent in high-voltage a regulations, competent and person has who been is appointed through written instructions by the Catenary in manager writing to be lead responsible and for supervise catenary work worksite at safety a workplace.~~

Definitions

OR.DEF.683

DMI symbols and marker boards

OR.DEF.146

SR-mode

OR.DEF.147

DEFINITION

SR-mode (Staff Responsible mode) is a driving mode used in degraded situations. SR-mode is selected by the Driver using the override function, or offered by the signalling system for the Driver to acknowledge.

SR-mode enables the train to move whenever a movement authority cannot be issued by the signalling system. The authority to select or acknowledge SR-mode can only come from the Signaller using an Operational Instruction.

Train movements are supervised to a maximum permitted speed of 40 km/h and against running in the direction opposite to the direction faced by the active desk.

Change per 2021-11-30:

SR-mode (Staff Responsible mode) is a driving mode used in degraded situations. SR-mode is selected by the Driver using the override function, or offered by the signalling system for the Driver to acknowledge.

SR-mode enables the train to move whenever a movement authority cannot be issued by the signalling system. The authority to select or acknowledge SR-mode can only come from the Signaller using an Operational Instruction.

Train movements are supervised to a maximum permitted speed of 40 km/h and against running in the direction opposite to the direction faced by the active ~~cab~~ desk.

Responsibilities

OR.DEF.148

Driver

Before using the override function you must receive an Operational Instruction and check the applicable speed limit. Following the use of the override function the symbol for running in SR-mode is displayed on the DMI.



When driving in SR-mode you must observe the conditions of on sight.

OR.DEF.695

Infrastructure

OR.DEF.63

Neutral section

OR.DEF.64

DEFINITION

A neutral section is a section of the catenary system that electrically separates two supply areas. The location of neutral sections is indicated in the Route Book and is defined in the signalling system.

The location of the neutral sections is indicated by trackside marker boards and is displayed in the DMI for supervised trains.

Change per 2021-11-30:

A neutral section is a ~~powerless~~ section of the catenary system that ~~bridge~~ electrically between ~~separates~~ two ~~separate electrical supply supplies~~ areas. The ~~locations~~ location of neutral sections ~~are~~ is indicated in the Route Book and ~~are~~ is defined in the signalling system.

The ~~locations~~ location of the neutral sections ~~are~~ is indicated by trackside marker boards, and ~~are~~ is ~~provided~~ displayed to in Driver the of DMI for supervised trains ~~using the DMI~~.

OR.DEF.320

Parking track

OR.DEF.321

DEFINITION

A parking track is a track in interlocked area designated for storage of rolling stock in-between missions. If a train is to end a mission at a parking track, this will be indicated in the production plan.

Sharing of track sections in a parking track is to be expected.

The location of parking tracks can be found in the Route Book.

Change per 2021-11-30:

A parking track is a track in interlocked area designated for storage of rolling stock in-between missions. If a train is to end a mission at a parking track, this will be indicated in the ~~timetable~~ production plan.

Sharing of track sections in a parking track is to be expected.

The location of parking tracks can be found in the Route Book.

Responsibilities

OR.DEF.322

Driver

When you are routed into a parking track in OS-mode you must always expect to be routed into an occupied track.

OR.DEF.701

Buffer stop

OR.DEF.702

DEFINITION

The buffer stop is placed at locations where the track terminates after the buffer stop. Buffer stops in interlocked areas can be equipped with an ETCS stop marker.

A buffer stop can be marked by red and white retro reflective markings and may be supplemented by two red light indications.

Change per 2021-11-30:

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A buffer stop can be marked by red and white retro reflective markings and may be supplemented by two red light indications.

OR.DEF.684

Catenary

OR.DEF.473

Earthing

OR.DEF.474

DEFINITION

Earthing is the operation of placing a conductive connection between the normally live parts of the catenary system and an earthing point. This ensures that any voltage present in the isolated catenary section, is limited to a safe level as well as protect persons working on or near the catenary system if voltage is conducted into the work area.

Change per 2021-11-30:

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~~Earthing is used well to protect people persons working in on an or area near from the traction catenary system if voltage being is applied conducted by into mistake the work area.~~

OR.DEF.714

Broken or hanging overhead wires

OR.DEF.715	<u>DEFINITION</u>	<p>A broken or hanging overhead wire is when the wire has been completely or partially torn down.</p> <p>It is extremely dangerous to:</p> <ul style="list-style-type: none"> - come closer than 5 metres to broken or hanging overhead wires - touch any items or tools in contact with the wire - leave a train at standstill close to broken or hanging overhead wires. <p>Whenever a broken or hanging overhead wire is observed it is reported to the Signaller immediately. The report contains information about:</p> <ul style="list-style-type: none"> - affected track(s) and area(s) - what has happened - potential danger to passing trains - any precautions made to prevent accidents and damages.
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Responsibilities

OR.DEF.716	All	<p>You must never come closer than 5 metres to a broken or hanging overhead wire.</p> <p>You must never touch any item or tool in contact with a broken or hanging overhead wire.</p>
OR.DEF.717	Driver	<p>In case the train is at standstill close to broken or hanging overhead wires, you must as far as possible ensure that passengers only leaves the train when the catenary staff or the Emergency services have secured the system.</p>

Change per 2021-11-30:

~~You~~In case the train is at standstill close to broken or hanging overhead wires, you must as far as possible ensure that passengers only leaves ~~at~~the train close to broken ~~when~~ or the hanging catenary overhead ~~staff~~ wires or ~~when~~ the Emergency services ~~safe~~ have ~~to~~ secured ~~the~~ system.

OR.DEF.718	All	<p>You must report broken or hanging overhead wires to the Signaller immediately.</p>
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OR.DEF.686 **Driving**

OR.DEF.380 **Supervised movements**

OR.DEF.381	<u>DEFINITION</u>	<p>A supervised movement is a train running in FS- or OS-mode with the Driver controlling the train from the cab in the front end of the train (snow clearing trains excepted).</p>
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A supervised movement provides the onboard with information used to control the speed and distance to an end of authority.

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A supervised movement provides the onboard with information used to control the speed and distance to an end of authority.

Responsibilities

OR.DEF.872 **Driver** You must only perform supervised movements in FS and OS-mode from the cab in the front end of the train.

OR.DEF.552 **Backwards movement**

OR.DEF.553 DEFINITION A backwards movement is to intentionally move the train in the opposite direction to the active desk. Backwards movements are used in case a train has overrun a stopping location, or has mistakenly been routed in the wrong direction.

Backwards movements are only used when it is not possible to drive the train from the forward facing cab of the movement.

Passenger trains do not perform backwards movements.

Backwards movements are normally performed in SH-mode, but may in special cases be performed with an isolated onboard if the Driver has been forced to isolate the onboard.

A backwards movement is performed when the Driver remains in the lead cab and receives authority from the Signaller by the use of the Backwards movement authorisation form.

See Book of forms, Backwards movement authorisation, for layout.

Change per 2021-11-30:

A backwards movement is to intentionally move the train in the opposite direction to the active ~~cab~~desk.

Backwards movements are used in case a train has overrun a stopping location, or has mistakenly been routed in the wrong direction.

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See Book of forms, Backwards movement authorisation, for layout.

OR.DEF.693

Emergency/incident

OR.DEF.475

Emergency services

OR.DEF.476

DEFINITION

Emergency services are a collective term for the emergency response services including Police, Fire Fighting and Ambulance services as well as Banedanmark response services.

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OR.DEF.687

Preparing a mission

OR.DEF.173

Onboard train data

OR.DEF.174

DEFINITION

Onboard train data is information stored in the onboard to describe the characteristics of a train.

Onboard train data is:

- ETCS operational train category
- train length
- traction and deceleration data
- maximum train speed
- loading gauge
- axle load
- power supply accepted by the train
- train fitted with airtight system
- additional data for the available STMs
- number of axles.

All supervised trains are controlled by the interaction between assigned movement authorities from the signalling system and the stored onboard train data and the safety of the system is dependant of the data being correct.

Some train data can be fixed by rolling stock specific configuration. Fixed data are not available for the Driver to edit.

Other train data is entered by the Driver and can be available as predefined values. For these data entries, the Driver only needs to acknowledge the data, or modify the data by entering or selecting the correct value.

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- additional data for the available STMs
- train number running of number axles.

All supervised trains are controlled by the interaction between assigned movement authorities from the signalling system and the stored onboard train data and the safety of the system is dependant of the data being correct.

Some train data can be fixed by rolling stock specific configuration. Fixed data are not available for the Driver to edit.

Other train data is entered by the Driver and can be available as predefined values. For these data entries, the Driver only needs to acknowledge the data, or modify the data by entering or selecting the correct value.

Responsibilities

OR.DEF.175

Driver

You must ensure that the onboard train data is updated to be consistent with the train whenever the consist or performance of the train changes. If the train has a movement authority indicated in the DMI, you must close the desk and perform a new start of mission before updating the train data.

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OR.DEF.688

Shunting

OR.DEF.160

Temporary shunting area

OR.DEF.161

DEFINITION

A temporary shunting area is an interlocked area temporarily set up to allow shunting operations. A temporary shunting area is always under the responsibility of a Shunting area manager.

A temporary shunting area is established to ensure that all track leading out of the area is limited by facing ETCS stop markers, unless points can be blocked to prevent movement out of the area.

A temporary shunting area can be limited by a buffer stop not fitted with an ETCS stop marker.

The time period allowed for the temporary shunting area is agreed between the Signaller and Shunting area manager before the temporary shunting area is established.

In locations, where shunting in temporary shunting areas often occurs, the most commonly used areas may be defined in the location specific descriptions by a name or number.

Points in the temporary shunting area are released for the Shunting area manager to control via the handheld terminal, if not locked for safety reasons. If the handheld terminal is not available, the Shunting area manager requests the Signaller to throw the points inside the area.

Change per 2021-11-30:

A temporary shunting area is an interlocked area temporarily set up to allow shunting operations. ~~The boundary~~ A temporary shunting area is always under the responsibility of a Shunting area manager.

~~A temporary shunting area is marked~~ established by to ensure that all track leading out of the area is limited by facing ETCS stop markers, unless points can be blocked to prevent movement out of the area.

A temporary shunting area can be limited by a buffer stop not fitted with an ETCS stop marker.

The time period allowed for the temporary shunting area is agreed between the Signaller and Shunting area manager before the temporary shunting area is established.

In locations, where shunting in temporary shunting areas often occurs, the most commonly used areas may be defined in the location specific descriptions by a name or number-

~~A temporary shunting area is always under the responsibility of a Shunting area manager.~~

Points in the temporary shunting area are released for the Shunting area manager to control via the handheld terminal, if not locked for safety reasons. If the handheld terminal is not available, the Shunting area manager requests the Signaller to throw the points inside the area.

Responsibilities

OR.DEF.164	Signaller	<p>You must agree the boundaries and timing of the temporary shunting area with the Shunting area manager.</p> <p>All movements in and out of the temporary shunting area must be coordinated between you and the Shunting area manager.</p>
OR.DEF.166	Shunting area manager	<p>You must agree the boundaries and timing of the temporary shunting area with the Signaller. When the temporary shunting area is established you are in charge of that particular area of infrastructure.</p> <p>All movements in and out of the temporary shunting area must be coordinated between you and the Signaller.</p>
OR.DEF.167	Shunting area manager	<p>You must regulate shunting movements within the temporary shunting area to be conducted safely.</p>

OR.DEF.87

Permanent shunting area

OR.DEF.88

DEFINITION

A permanent shunting area is a non-interlocked area which is bounded by an ETCS stop marker at the exit. No ETCS stop markers are located within a permanent shunting area.

At the exit from the permanent shunting area, there are balises placed to ensure update of a valid position. A further balise may be installed which will protect against an active desk exiting the permanent shunting area without authority unless a movable element at the exit already provides this protection.

Location specific descriptions contains special provisions and regulations applying to the movement of trains and vehicles in permanent shunting areas. If there is always a Shunting area manager present information about this can be found in the location specific descriptions. Including information about contact options.

Movements performed inside a permanent shunting area are the responsibility of the Shunter. Several movements can take place in the area at the same time.

Change per 2021-11-30:

A permanent shunting area is a non-interlocked area which is bounded by an ETCS stop marker at the exit. No ETCS stop markers are located within a permanent shunting area.

At the exit from the permanent shunting area, there are balises placed to ensure update of a valid position. A further balise may be installed which will protect against an active ~~cab desk~~ exiting the permanent shunting area without authority unless a movable element at the exit already provides this protection.

Location specific descriptions contains special provisions and regulations applying to the movement of trains and vehicles in permanent shunting areas. If there is always a Shunting area manager present information about this can be found in the location specific descriptions. Including information about contact options.

Movements performed inside a permanent shunting area are the responsibility of the Shunter. Several movements can take place in the area at the same time.

Responsibilities

OR.DEF.89

Signaller

For areas where there is a local Shunting area manager present, you must coordinate all movements in and out of the permanent shunting area with the Shunting area manager.

OR.DEF.90 **Shunting area manager** All movements in and out of the permanent shunting area must be coordinated between you and the Signaller.

You must regulate shunting movements within the permanent shunting area to be conducted safely.

OR.DEF.847 **Shunter** In permanent shunting areas you must be aware of other movements.

In permanent shunting areas where no Shunting area manager is available, you must coordinate movements out of the permanent shunting area with the Signaller.

OR.DEF.126 **Shunting movement**

OR.DEF.127 DEFINITION A shunting movement is a movement on a route for shunting or within a possession, a permanent or a temporary shunting area.

Passenger trains do not perform shunting movements.

All shunting movements are controlled by a Shunter.

The maximum permitted speed for shunting movements is 25 km/h.

Warning systems at passenger and staff crossings are not necessarily activated for shunting movements.

Change per 2021-11-30:

A shunting movement is a movement on a route for shunting or within a possession, a permanent or a temporary shunting area.

Passenger trains do not perform shunting movements.

All shunting movements are controlled by a Shunter.

The maximum permitted speed for shunting movements is 25 km/h.

Warning systems at passenger and staff crossings are not necessarily activated for shunting movements.

Responsibilities

OR.DEF.128 **Driver** When you are driving on a route for shunting, or inside a possession, permanent or temporary shunting area you must only carry out movements agreed with the Shunter.

OR.DEF.129 **Shunting area manager** You are responsible for the safe regulation of all shunting movements inside your area of control and for the communication with all other participants.

OR.DEF.689

Signalling System

OR.DEF.434

Production plan

OR.DEF.435

DEFINITION

The production plan is an online tool which contains the information enabling the signalling system to decide the sequence and paths of trains for routes to be called automatically in order to facilitate automatic route setting. The timetable of individual trains can be seen in the production plan.

All changes to the production plan are communicated and coordinated through the production plan.

Change per 2021-11-30:

The production plan is an online tool which contains the information enabling the signalling system to decide the sequence and paths of trains for routes to be called automatically in order to facilitate automatic route setting. The timetable of individual trains can be seen in the production plan.

All changes to the production plan are communicated and coordinated through the production plan.

Responsibilities

OR.DEF.436

Signaller

You must update the production plan with identified changes as soon as practicable.

OR.DEF.698

Possession

OR.DEF.338

Planned Possession

OR.DEF.339

DEFINITION

A planned possession is prepared by the planning department to fit the production plan or the production plan is adjusted to contain the possession. A planned possession is announced in a possession report with a unique identifier.

The railway safety plan is always prepared in connection with the possession planning.

Planned possessions are viewable in the signalling system.

Change per 2021-11-30:

A planned possession is prepared by the planning department to fit the ~~timetable~~production plan or the ~~timetable~~production plan is adjusted to contain the possession. A planned possession is announced in a possession report with a unique identifier.

The railway safety plan is always prepared in connection with the possession planning.

Planned possessions are viewable in the signalling system.

OR.DEF.333

Possession

OR.DEF.334

DEFINITION

A possession is when a section of track is taken out of normal operation for e.g. fault correction or maintenance. The section of track under possession is under the authority of a PICOP, and all movements within the possession are controlled by the PICOP as shunting with the PICOP acting as Shunting area manager.

A possession is established to ensure that all track leading out of the possession is limited by facing ETCS stop markers, unless points can be blocked to prevent movement out of the possession.

A possession can be limited by a buffer stop not fitted with an ETCS stop marker.

Possessions in transition areas are established between the transition point and an ETCS stop marker.

A possession may contain one or more worksites.

All possessions are as far as possible ended at the agreed time. In case a possession cannot be ended at the agreed time, the PICOP informs the Signaller.

Points in the possession are released for the PICOP to control via the handheld terminal, unless they are prevented from throwing for safety reasons. If the handheld terminal is not available, the PICOP requests the Signaller to throw the points inside the possession.

Change per 2021-11-30:

A possession is when a section of track is taken out of normal operation for e.g. fault correction or maintenance. The section of track under possession is under the authority of a PICOP, and all movements within the possession are controlled by the PICOP as shunting with the PICOP acting as Shunting area manager.

A possession is established ~~between two~~ to ensure or that ~~more~~ all track leading out of the possession is limited by facing ETCS stop markers, unless points can be blocked to prevent movement out of the possession.

A possession can be limited by a buffer stop not fitted with an ETCS stop marker.

Possessions in transition areas are established between the transition point and an ETCS stop marker.

A possession may contain one or more worksites.

All possessions are as far as possible ended at the agreed time. In case a possession cannot be ended at the agreed time, the PICOP informs the Signaller.

Points in the possession are released for the PICOP to control via the handheld terminal, ~~if unless not they locked~~ are prevented from throwing for safety reasons. If the handheld terminal is not available, the PICOP requests the Signaller to throw the points inside the possession.

Responsibilities

OR.DEF.335	Signaller	You must coordinate all movements going in to or out of the possession with the PICOP.
OR.DEF.336	PICOP	You are responsible for the safe regulation of all shunting movements, for communication with other participants and for the safety of work taking place in your area of control.
OR.DEF.337	PICOP	You must coordinate all movements going in to or out of the possession with the Signaller.
OR.DEF.661	PICOP	In case your possession cannot be ended at the agreed time, you must inform the Signaller about the expected delay as soon possible.

OR.DEF.437

Protection requirements

Change per 2021-11-30:

~~Possession protection~~ Protection requirements

OR.DEF.438

DEFINITION

Protection requirements for a possession or temporary shunting area are technical precautions set up by the signalling system to prevent unintentional route setting into the area, or unintentional movements out of the area. Route setting is prevented by disabling automatic route setting, blocking all signalling within the area and blocking moveable elements in connection to the area.

Protection requirements are defined during the planning phase.

Change per 2021-11-30:

~~Possession-protection~~ Protection requirements for a possession or temporary shunting area are technical precautions set up by the signalling system to prevent unintentional route setting into ~~at the possession~~ the possession area, or unintentional movements out of the ~~possession~~ possession area. Route setting is prevented by disabling automatic route setting, blocking all signalling within the area and blocking moveable elements in connection to the area.

~~Possession-protection~~ Protection requirements are defined during the planning ~~of the possession and can be viewed on request on the signalling control display~~ phase.

Responsibilities

OR.DEF.439

Signaller

You must ensure that protection requirements are defined during the planning of impromptu possessions or temporary shunting areas.

Change per 2021-11-30:

You must ensure that ~~possession-protection~~ requirements are defined during the planning of impromptu possessions or temporary shunting areas.

OR.DEF.690

Terms

OR.DEF.495

Traffic control centre

OR.DEF.496

DEFINITION

Traffic control centre is the location from which railway traffic is supervised and controlled.

Telephone numbers for the traffic control centre can be found in the Route Book.

Change per 2021-11-30:

Traffic control centre is the building location from which railway traffic is supervised and controlled.

Telephone numbers for the traffic control ~~centres~~centre can be found in the Route Book.

OR.DEF.645

Signaller protected area

OR.DEF.646

DEFINITION

A Signaller protected area is an area of the infrastructure for which the Signaller uses available signalling controls to provide safe conditions for unplanned short-term access to the tracks or violation of the safety distance for machinery.

The Signaller protected area is applied in a situation where this is immediately necessary outside of a possession. Signaller protected areas can be used in situations requiring e.g. Emergency services access to tracks, for Drivers to clamp points, for Drivers to inspect trains or if the safety distance for machinery is violated. In a Signaller protected area it is not allowed to perform maintenance or infrastructure work. Banedanmark response services may be put on track and drive in a Signaller protected area.

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The Signaller protected area is applied in a situation where this is immediately necessary outside of a possession. Signaller protected areas can be used in situations requiring e.g. Emergency services access to tracks, for Drivers to clamp points, for Drivers to inspect trains or if the safety distance for machinery is violated. In a Signaller protected area it is not allowed to perform maintenance or infrastructure work. Banedanmark response services may be put on track and drive in a Signaller protected area.

OR.DEF.685

Degraded operation

OR.DEF.233

Operational Instruction

OR.DEF.234

DEFINITION

An Operational Instruction is an instruction issued by the Signaller to the Driver to ensure safe operation when this cannot be provided by the signalling system.

An Operational Instruction must only be issued when the train is at a standstill and never past more than one ETCS stop marker at a time.

An Operational Instruction may be transmitted as verbal instructions for the driver to write down or handed out physically on paper to the Driver.

An Operational Instruction must not be transferred from one Driver to another Driver.

When an Operational Instruction has been issued it is valid until the movement is completed and the train has reached the end of authority, until it is revoked by an Operational Instruction 4, or a new Operational Instruction referring to the authorisation number of the previous Operational Instruction using "Additional instruction".

Warning systems at passenger and staff crossings are not necessarily activated for driving on Operational Instructions.

An Operational Instruction will state:

- which train it is issued to
- the time and date it was issued
- from where it is issued
- the location where it is valid
- a clear, precise, unambiguous instruction
- an authorisation number.

Field D is used when the position of the train is at a kilometer reference in a location with two or more tracks next to each other.

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- from where it is issued
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- an authorisation number.



Field D is used when the position of the train is at a kilometer reference in a location with two or more tracks next to each other.

Responsibilities

OR.DEF.235	Driver	When you receive an Operational Instruction you must check that the Operational Instruction refers to your train and, if relevant, its current location.
OR.DEF.236	Driver	When you receive an Operational Instruction it takes precedence over other indications presented on the DMI except when a lower permitted speed or a lower release speed is displayed.

OR.DEF.237	Signaller	You must issue the Operational Instruction to be executed as close as sensible to the affected area and only when the necessary conditions are met.
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Procedures

1947			Normal operation
1948			Announcement of extra train
1949	Precondition		The need for an extra train has been identified.
1950	Purpose		To inform the Signaller and Driver about the timetable change.
			<u>PROCEDURE</u>
1951	Infrastructure Manager		Deleted
			<div style="border: 1px dashed gray; padding: 10px;"> <p>Change per 2021-11-30:</p> <p>Banedanmark has procedures to ensure that a train running number and schedule is planned and added to the timetable. Banedanmark must inform the Railway Undertaking of the updated timetable. Deleted</p> </div>
1952	Railway Undertaking		The Railway Undertaking must have procedures to ensure that Drivers are always informed of timetable changes.
1954	Driver		If the Driver is unable to obtain the updated timetable from the Railway Undertaking the Driver must inform the Signaller.
3543	Signaller		If the Signaller is informed by a Driver that an updated timetable cannot be obtained from the Railway Undertaking, the Signaller must manually transfer the relevant parts of the timetable to the Driver.
2070			Next operational step unknown
2071	Precondition		The train is at a standstill but not in a depot or at a stabling track. The timetable does not contain any further operations for the train.
2072	Purpose		Update the production plan to resume or end the mission of the train.
			<div style="border: 1px dashed gray; padding: 10px;"> <p>Change per 2021-11-30:</p> <p>Update timetable <u>the production plan</u> to resume or end the mission of the train.</p> </div>
			<u>PROCEDURE</u>
2074	Signaller		The Signaller must decide the next operational step required and inform the Driver if this deviates from any pre-agreed plan.

- 2075 **Signaller** To resume or end the mission of the train the Signaller must update the production plan or use manual route setting.
- 2076 **Driver** The Driver must accept any valid changes to the pre-agreed plan as informed by the Signaller.


2125 **Rolling stock is not continuing as a train**

- 2126 **Precondition** A train has reached the last scheduled stopping location in the timetable. The rolling stock is not going to continue as a train.
- 2127 **Purpose** To end the mission by closing down the lead desk and parking the train, or entering SH-mode to perform shunting movements.

Change per 2021-11-30:

To end the mission by closing down the lead ~~lead desk~~ and parking the train, or entering SH-mode to perform shunting movements.

PROCEDURE

- 2128 **Driver** When the train has reached the last scheduled location in the timetable, the Driver must determine if the train should be parked at the current location or be prepared for shunting.
- 2129 **Railway Undertaking**  The Railway Undertaking must have procedures describing how the Driver can perform a safe parking of rolling stock. This includes correct application of parking brakes for the rolling stock concerned to prevent any unintentional movement.
- 2130 **Driver** If the next operational step is to park the train at the current location, the Driver must close the desk and secure the parked rolling stock against any unintended movements according to Railway Undertaking procedures.
- 2132 **Driver** If the next operational step is to prepare for shunting, the Driver must apply the procedure Shunting - Prepare shunting movement.
- 2134 **Driver** If the Driver is not able to determine the next operational step from the timetable, the Driver must contact the Railway Undertaking for further instructions.



If the Driver cannot obtain information about the next operational step from the Railway Undertaking, the Driver must contact the Signaller for further instructions.


- 2135 **Signaller** If the Driver informs the Signaller that the next operational step cannot be determined, the Signaller must decide on the most convenient location to park the train and inform the Driver.



3103 **User worked crossing**

- 3104 **Precondition** A member of the public request to use a user worked crossing.
- 3105 **Purpose** Prevent use of a user worked crossing endangering the safe passage of trains.

PROCEDURE

3106	Infrastructure Manager		Deleted
<div style="border: 1px dashed gray; padding: 10px;"> <p>Change per 2021-11-30:</p> <p>Banedanmark has procedures in place to instruct necessary members of the public on the safe working of a user worked crossing. Deleted</p> </div>			
3107	Signaller		<p>For all user worked crossings a predefined temporary speed restriction of 0 km/h is available extending 50 metres both sides of the crossing.</p> <p>All user worked crossings are identified by a unique ID-number and the ID-numbers are available on the signalling control display .</p>
3108	Signaller		<p>When receiving a request from a member of the public to pass a user worked crossing the Signaller must obtain the location and identity of the crossing and verify that this corresponds to the user worked crossing.</p> <p>The Signaller must make an entry in the Signaller log containing the ID-number of the user worked crossing, the name and phone number of the member of the public requesting to pass.</p>
3109	Signaller		<p>If a train is approaching the crossing the Signaller must instruct the member of the public to wait and call back when the train has passed.</p>
3110	Signaller		<p>If no train is approaching the crossing the Signaller must activate a temporary speed restriction of 0 km/h at the crossing by applying the predefined speed restriction identified by the ID-number of the user worked crossing.</p>
3111	Signaller		<p>When the signalling system indicates that the temporary speed restriction of 0 km/h is active the Signaller must observe the signalling control display to verify that the temporary speed restriction is activated at the requested user worked crossing.</p> <p>The Signaller must instruct the member of the public to report back when the user worked crossing has been cleared and the gates closed.</p> <p>Then the Signaller may authorise the member of the public to cross at the user worked crossing.</p>
3112	Signaller		<p>When the Signaller is informed by the member of the public that the user worked crossing has been cleared the Signaller may remove the temporary speed restriction for the user worked crossing.</p>

3113	Signaller	<p>If the member of the public does not report back and the Signaller is unable to contact the member of the public, the Signaller may request assistance from the Driver of the next train approaching the crossing.</p> <p>The Signaller must instruct the Driver to complete an Operational Instruction 6. The Operational Instruction 6 must include:</p> <ul style="list-style-type: none"> - an instruction to run on sight - location of the user worked crossing - additional instructions to bring the train to a standstill before reaching the user worked crossing and closing the gate - instruction to report back to the Signaller when the gate is closed. <p>When the Driver has completed the Operational Instruction 6, the Signaller may deactivate the temporary speed restriction protecting the user worked crossing.</p>
3114	Driver	<p>When the Operational Instruction 6 is completed the Driver may proceed to the user worked crossing, using the information contained in the Operational Instruction 6, and close the gate.</p> <p>The Driver must report back to the Signaller when the crossing gates have been closed.</p>
3115	Driver	<p>When the gate is closed and the Signaller has been informed, the Driver may continue driving according to the movement authority displayed on the DMI.</p>
3224		<p>Parking in an interlocked area</p>
3225	Precondition	<p>A need for an unplanned parking in an interlocked area has occurred.</p>
3226	Purpose	<p>To ensure the parking does not affect the production plan and ensure this is updated to reflect the changes.</p>
<p>Change per 2021-11-30:</p> <p>To ensure the parking does not affect the timetable <u>production plan</u> and ensure the production plan <u>this</u> is updated to reflect the changes.</p>		
<p><u>PROCEDURE</u></p>		
3227	Railway Undertaking 	<p>The Railway Undertaking must have procedures describing how the Driver can perform a safe parking of rolling stock in an interlocked area. This includes correct application of parking brakes for the concerned rolling stock to prevent any unintentional movement.</p>
3228	Driver	<p>The Driver must request the Signaller for permission to park a train.</p> <p>The request must contain:</p> <ul style="list-style-type: none"> - train length, - track number - expected parking duration - reason for parking.

3230	Signaller	<p>The Signaller must assess the request and decide if it can be approved.</p> <p>If the request can be approved, the Signaller ensure it is noted in the Signaller log and inform the Driver. The Signaller may then issue a movement authority.</p>
3231	Signaller	<p>If the request cannot be approved, the Signaller must inform the Driver and agree on an alternative.</p>
3232	Driver	<p>When the train has arrived at the agreed parking track, the Driver must secure the parked rolling stock against any unintended movements according to Railway Undertaking procedures.</p>
3163	<h3>Signaller handling changes to operation</h3>	
3164	Precondition	<p>The Signaller is aware of the need to perform a change to planned operations.</p>
3165	Purpose	<p>To ensure the change is either handled by the Signaller according to service agreements or by the Signaller requesting instructions from the Network manager.</p>
<p><u>PROCEDURE</u></p>		
3166	Infrastructure Manager	<p data-bbox="491 913 555 978"> Deleted</p> <div data-bbox="638 1008 1500 1265" style="border: 1px dashed gray; padding: 10px;"> <p>Change per 2021-11-30:</p> <p>Banedanmark has service agreements with Railway Undertakings defining standard responses to deviations in planned operations.</p> <p><u>Deleted</u></p> </div>
3168	Signaller	<p data-bbox="491 1290 555 1355"> Manual route setting can be used for last-minute re-scheduling by requesting a route for the concerned train.</p> <p>Any changes made by manual route setting will be automatically reflected in the production plan.</p>
3169	Signaller	<p>If the change can be handled according to the service agreements the Signaller must update the production plan.</p> <p>If the change cannot be handled according to the service agreements the Signaller must inform the Network manager.</p>
3557	Signaller	<p>If the change in the production plan results in a change in the trains mission, or a change in the scheduled stopping locations, the Signaller must ensure that the Driver is informed about the changes.</p>
3170	Signaller	<p>If the change in the production plan results in an altered train sequence out of the level 2 area, the Signaller must inform the Legacy signaller of the level 0 or level ATC area about the change.</p> <p>If the change in the production plan results in an altered train sequence for a train entering or exiting a depot, the Signaller must contact the person controlling the depot and coordinate necessary changes.</p>

Change per 2021-11-30:

If the change in the production plan results in an altered train sequence ~~to out adjacent of Infrastructure the Managers level 2 area,~~ the Signaller must inform the adjacent Legacy Signaller ~~signaller about of the change level in 0 train or sequence level ATC area about the change.~~

If the change in the production plan results in an altered train sequence for a train entering or exiting a depot, the Signaller must contact the person controlling the depot and coordinate necessary changes.

3593 Signaller The Signaller must ensure that the Signallers affected by the change are informed.

3172 **Banedanmark handling changes to operations**

3173 Precondition The deadline for requesting changes to timetable has not expired. The change is to be handled by the planning department and not the Signaller.

3174 Purpose To ensure the change is addressed by the appropriate department in Banedanmark, ensure Railway Undertaking involvement and updating the signalling system with the changes.

PROCEDURE

3175 Infrastructure Manager



Deleted

Change per 2021-11-30:

~~Banedanmark has procedures for ordering changes to planned operation.~~

~~The procedure contains e.g.:~~

- ~~–deadline for ordering changes~~
- ~~–relevant contact information~~
- ~~–collaboration with Railway Undertakings~~
- ~~–description of signalling system interaction.~~

~~The changes are handled offline and then updated into the production plan. Deleted~~

2731 **Degraded operation**

2732 **Authorised passing of the end of authority**


2733 Precondition It is not possible to issue a movement authority. The train is at a standstill and voice communication has been established between the Driver and the Signaller.

2734	Purpose	<p>For the Signaller to ensure adequate protection to allow the train to continue driving and authorise the Driver to pass the end of authority by use of Operational Instruction 1.</p> <p><u>PROCEDURE</u></p>
2735	Driver	<p>The Driver must report current location to the Signaller and request authority to proceed.</p>
2736	Signaller	<p>When the Signaller has exhausted all possibilities for issuing a movement authority, the Signaller must protect the continued driving of the train and authorise the Driver to proceed past the end of authority and to the next ETCS stop marker, or other unambiguous location.</p> <p>To allow the continued driving of the train, the Signaller must ensure that:</p> <ol style="list-style-type: none"> 1. Moveable elements in the track section where authority to move on Operational Instruction 1 will be valid are detected in the correct lie and prevented from further throwing or any moveable elements in the track section where authority to move on Operational Instruction 1 will be valid are safe to pass according to the procedure Infrastructure fault - Handling of an undetected point that is not trailed, Infrastructure fault - Handling of a trailed point or location specific description 2. The track section where authority to move on Operational Instruction 1 will be valid is unoccupied, unless the Signaller requires the train to enter an occupied track section, a possession or a shunting area 3. No other trains have authority to move within or into the track section where authority to move on Operational Instruction 1 will be valid 4. No other trains have authority to move within or into the track section which follows the track section where authority to move on Operational Instruction 1 will be valid, unless the Operational Instruction 1 will apply to an occupied track section, a buffer stop, a possession or a shunting area.
2737	Signaller	<p>The Signaller must assess if any of the following restrictions apply to the continued driving of the train on Operational Instruction 1:</p> <ul style="list-style-type: none"> - unusual transport restrictions, - electric traction unit restriction, - restrictions specified in location specific descriptions.
2738	Signaller	<p>If a level crossing is located between the train and the end of authority of the Operational Instruction 1, the Signaller must apply the procedure Degraded operation - Passing a level crossing without a movement authority.</p>
2739	Signaller	<p>If the Signaller requires the train to enter an occupied track and it is not according to the production plan, the Signaller must inform the Driver (if relevant) of the occupying train that another train is to approach.</p>

Change per 2021-11-30:

If the Signaller requires the train to enter an occupied track and it is not according to the ~~timetable~~ production plan, the Signaller must inform the Driver (if relevant) of the occupying train that another train is to approach.


3772	Signaller	If the Signaller wants to authorise the train into a possession or shunting area, the Signaller must first contact the PICOP or Shunting area manager (if relevant) and request permission for the movement.
2740	Signaller	<p>When the continued driving of the train is protected, the Signaller must instruct the Driver to complete an Operational Instruction 1. The Operational Instruction 1 must include (as required):</p> <ul style="list-style-type: none"> - any speed restriction below 40 km/h - information about any occupied track - information about any level crossing not protected - stopping location if it is not the next ETCS stop marker - information about possessions or shunting areas.
2743	Signaller	<p>The Signaller must ensure that the continued driving of the train remains protected until one of the following conditions is fulfilled:</p> <ul style="list-style-type: none"> - the train has reached the end of authority of Operational Instruction 1 and has changed into supervised driving - the Operational Instruction is revoked by an Operational Instruction 3 - the Driver reporting that the train is at a standstill at the end of authority of Operational Instruction 1 without a movement authority.
2744	Driver	<p>When the Operational Instruction 1 is completed, the Driver must check the location of the end of authority of the Operational Instruction 1 either by using the Route Book or by local area knowledge.</p> <p>The Driver is then authorised to press override to enter SR-mode and proceed to the next ETCS stop marker, or the location instructed, using the information contained in the Operational Instruction 1.</p> <p>If the movement ends in a possession or shunting area, the Driver may only start the movement according to Operational Instruction 1 when the movement inside the area has been agreed with the PICOP or Shunting area manager. The Driver must immediately after entering the area make sure that the onboard changes to SH-mode.</p>
2745	Driver	<p>If Operational Instruction 1 contains additional information of a level crossing not protected, the Driver must proceed on sight with a maximum of 10 km/h, while using sound signal "Warning", until the lead cab has passed the level crossing.</p> <p>The Driver may omit the use of sound signal "Warning", when staff present at the level crossing is applying the hand signal "road traffic, stop".</p>
3091		Supervised passing of failed level crossing
3092	Precondition	A supervised train is approaching a level crossing.

3093	Purpose	To pass a level crossing not automatically activated by the signalling system without causing any harm to infrastructure, rolling stock, passengers or road users.
<u>PROCEDURE</u>		
3094	Driver, Signaller	 <p>All level crossings are equipped with a local control box enabling on site operation of the level crossing. The local control box is used in case of failures, fault correction or planned maintenance.</p>
3095	Driver	<p>When the train is supervised to a speed restriction of 10 km/h, and the unprotected level crossing symbol is displayed on the DMI, the Driver must bring the train to a standstill at the ETCS stop marker protecting the level crossing and inform the Signaller.</p> <p>The information must include the ID number of the level crossing and, if possible, the nature of the fault.</p>
3096	Signaller	<p>When the Signaller is informed by a Driver that the train is at a standstill at an unprotected level crossing, the Signaller must try to operate the level crossing manually.</p> <p>If the level crossing cannot be operated manually, the Signaller must request the Driver to operate the level crossing using the local control box.</p> <p>If the level crossing cannot be operated using the local control box, the Signaller must instruct the Driver to pass the unprotected level crossing using a verbal safety message.</p> <p>The verbal safety message must include train running number and level crossing ID.</p>
3097	Signaller	<p>If the Signaller knows that the level crossing cannot be protected by using the manual controls or the local control box, the Signaller may omit the process for manual activation and instruct the Driver to pass the unprotected level crossing using a verbal safety message.</p> <p>The verbal safety message must include train running number and level crossing ID.</p>
3098	Driver	<p>The Driver may continue driving if the level crossing speed restriction of 10 km/h is lifted.</p> <p>When instructed by the Signaller to operate the level crossing, the Driver must use the local control box.</p> <p>If the level crossing cannot be protected, the Driver must inform the Signaller.</p>
3099	Driver	<p>When the Signaller has authorised the passing an unprotected level crossing by a verbal safety message, the Driver must pass the level crossing on sight using sound signal "Warning" until the lead cab has passed the level crossing.</p> <p>The Driver may omit the use of sound signal "Warning", when staff present at the level crossing is applying the hand signal "road traffic, stop".</p>

Change per 2021-11-30:

When ~~instructed by the Signaller to~~ has passed authorised the passing an unprotected level crossing by a verbal safety message, the Driver must pass the level crossing on sight using sound signal "Warning" until the lead cab has passed the level crossing.

The Driver may omit the use of sound signal "Warning", when staff present at the level crossing is applying the hand signal "road traffic, stop".

3100	Signaller	If the level crossing cannot be protected automatically or manually, the Signaller must apply the procedure Infrastructure fault - Handling report of infrastructure fault.
3255		Overrunning/routed in wrong direction
3256	Precondition	A train has overrun its scheduled stopping location or is routed in a wrong direction and is at a standstill.
3257	Purpose	To assess if the train will remain at the current location, continue, or be moved to another location.
3258	Railway Undertaking	<div style="display: flex; align-items: center; gap: 10px;">  <p>The Railway Undertaking must have procedures describing if backwards movements are permitted with trains not carrying passengers.</p> <p>The procedures must describe how to inform passengers in the train in case of an overrun.</p> </div>
3259	Driver	If a scheduled stopping location is overrun or a train is routed in the wrong direction the Driver must inform the Signaller, providing additional information regarding the actual location of the train and any expected delays to current operations.
3260	Signaller	<p>When informed of an overrun, or a train routed in a wrong direction, the Signaller must in close cooperation with the Driver determine the appropriate response.</p> <p>The Signaller must determine if:</p> <ul style="list-style-type: none"> - the passengers may be exchanged without moving the train - the train must continue - the Driver must be instructed to close the desk and perform train awakening in the other end of the train - the train must perform a backwards movement (provided that the train is not a passenger train).


Change per 2021-11-30:

When informed of an overrun, or a train routed in a wrong direction, the Signaller must in close cooperation with the Driver determine the appropriate response.

The Signaller must determine if:

- the passengers may be exchanged without moving the train
- the train must continue
- the Driver must be instructed to close the ~~cabdesk~~ and perform train awakening in the other end of the train
- the train must perform a backwards movement (provided that the train is not a passenger train).

3261	Signaller	The Signaller must instruct the Driver about how to proceed.
3262	Signaller	<p>If the train has to perform a backwards movement, and the train does not carry passengers, the Signaller must:</p> <ul style="list-style-type: none"> - disable automatic route setting - revoke any movement authority into the area behind the train - ensure no train or vehicle has authority to move into the necessary track section(s) behind the train - establish a temporary shunting area around the train, or set a route for shunting, to allow the backwards movement - instruct the Driver to complete the form "Backwards movement authorisation".
3263	Driver	<p>When instructed by the Signaller, the Driver must complete the form "Backwards movement authorisation", provided that backwards movements are permitted by the Railway Undertaking.</p> <p>When the form backwards movement authorisation is completed, the Driver must press "Shunt" to enter SH-mode and perform the movement as instructed. The Driver must inform the Signaller when the movement is completed, and the train is at a standstill.</p>
3264	Signaller	<p>When the Driver informs the Signaller that the backwards movement is completed, and the train is at a standstill, the Signaller must instruct the Driver to exit SH-mode and prepare the train to continue its mission.</p> <p>When the train has exited SH-mode, the Signaller must end the temporary shunting area, or ensure the entire route for shunting is released, as applicable.</p>
3561	Driver	When instructed by the Signaller, the Driver must exit SH-mode and initiate the procedure Normal operation - Enter onboard train data to continue the mission.
3563		Speed restriction
3564		Activate planned temporary speed restriction
3565	Precondition	A temporary speed restriction has been planned in the signalling system.

3566	Purpose	To establish the temporary speed restriction to ensure that all supervised trains are supervised according to the temporary speed restriction, and updating the Signaller log.
<u>PROCEDURE</u>		
3783	Infrastructure manager	<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"></div> <div> <p data-bbox="635 302 734 331">Deleted</p> <div style="border: 1px dashed gray; padding: 10px; margin-top: 10px;"> <p data-bbox="662 425 965 459">Change per 2021-11-30:</p> <p data-bbox="662 492 1444 627">Banedanmark has a procedure to ensure that the Signaller has access to an overview of all planned temporary speed restrictions within their area of responsibility. The list contains as a minimum the following information:</p> <ul style="list-style-type: none"> <li data-bbox="662 660 917 694">–speed restriction ID <li data-bbox="662 705 885 739">–applicable speed <li data-bbox="662 750 1396 784">–start and end location of the speed restriction (in kilometres) <li data-bbox="662 795 1037 828">–expected start and end timing <li data-bbox="662 840 1157 873">–reason for the speed restriction. Deleted </div> </div> </div>
3784	Maintainer	<p data-bbox="635 929 1444 1030">When the Maintainer wishes to activate a planned temporary speed restriction, the Maintainer must contact the Signaller and request activation.</p> <p data-bbox="635 1064 1500 1131">The request must contain the speed restriction ID, applicable speed and the location.</p>
3568	Signaller	<p data-bbox="635 1164 1444 1310">When the Maintainer requests the activation of a planned temporary speed restriction, the Signaller must check that the requested speed restriction ID is shown on the overview of planned temporary speed restrictions.</p> <p data-bbox="635 1344 1476 1377">Prior to activating the speed restriction, the Signaller must ensure that:</p> <ul style="list-style-type: none"> <li data-bbox="635 1411 1284 1444">- no supervised trains are currently running in the area <li data-bbox="635 1456 1500 1523">- the Driver of any unsupervised movement in the area is informed when the speed restriction is below 40 km/h <li data-bbox="635 1534 1460 1590">- the Shunter of any shunting movement in the area is informed when the speed restriction is below 25 km/h.
3840	Signaller	<p data-bbox="635 1624 1500 1758">The Signaller must then check that the indication of the speed restriction on the signalling control display is consistent with the planning. If the indication is consistent with the planning, the Signaller must activate the speed restriction in the signalling system.</p> <p data-bbox="635 1792 1500 1933">If the indication of the speed restriction on the signalling control display is NOT consistent with the planning, the Signaller must ensure that the speed restriction is updated in the signalling system according to the planning.</p>

3569 Signaller When the temporary speed restriction is activated and indicated on the signalling control display, the Signaller must make an entry in the Signaller log. The entry must include the applicable speed, name of the person requesting the activation of the speed restriction and the location where the speed restriction applies.

3570 Signaller If the Signaller knows that the planned temporary speed restriction is not needed, or is faulty, the Signaller must reject the request and inform the O&M coordinator.

3774 **Handling of an unplanned speed restriction in a transition area**

3775 Precondition The need for an unplanned speed restriction in a transition area has been reported to the Signaller.

3776 Purpose Ensuring that the speed of the train does not exceed the speed restriction when passing the transition point.

PROCEDURE

3778 Infrastructure Manager



Deleted

Change per 2021-11-30:



~~Banedanmark has procedures to ensure that speed restrictions which occur in a transition area is always extended across the transition point to ensure that the speed of the train does not exceed the speed restriction when passing the transition point.~~

Deleted

3779 Signaller When the need for a speed restriction is reported between the “Start of ETCS-signalling” marker and the first ETCS stop marker, the Signaller must apply the procedure Speed restriction - Handling an unplanned speed restriction to ensure that no trains or vehicles exceed the speed restriction.

The Signaller must contact the Legacy signaller responsible for the area on the other side of the transition area and request that the speed restriction is also established in the neighbouring system.

The Signaller ensure that the speed restriction is planned in the signalling system according to procedure Speed restriction - Implementing an unplanned speed restriction. The Signaller ensure that the speed restriction is planned to start at the “Start of ETCS-signalling” marker and end at least 50 meters after the opposite facing “Start of ATC-signalling” or “End of ETCS-signalling” marker.

3780	Signaller	<p>When the need for a speed restriction is reported between the “Start of ATC-signalling” or “End of ETCS-signalling” marker and the first main signal, the Signaller must apply the procedure Speed restriction - Handling an unplanned speed restriction to ensure that no trains or vehicles exceed the speed restriction.</p> <p>The Signaller must then ensure that the speed restriction is planned in the signalling system according to procedure Speed restriction - Implementing an unplanned speed restriction. The Signaller must ensure that the speed restriction is planned to start 50 metres before the “Start of ATC-signalling” or “End of ETCS-signalling” marker and end at the opposite facing “Start of ETCS-signalling” marker.</p>
3818	Signaller	<p>Before granting an authority to move past the last ETCS stop marker towards the transition point, the Signaller must inform the Driver that the speed restriction in the transition area is also valid past the transition point.</p> <p>The Signaller may omit informing the Driver when the Legacy signaller has confirmed that the speed restriction is managed from the transition point.</p>
3799	Driver	<p>When the Driver is informed via the DMI, or on an Operational Instruction, about a temporary speed restriction which is valid up to the transition point, the Driver must assume that the speed restriction is also valid beyond the transition point, unless other information is received.</p>
3117	Tunnel	
3118	Train triggers alarm from tunnel protection system	
3119	Precondition	<p>A train exceeding the tunnel values has passed the tunnel protection system and triggered an alarm.</p>
3120	Purpose	<p>The train is stopped and examined before entering the tunnel to avoid causing any harm to humans, or damage to infrastructure or rolling stock.</p>
<u>PROCEDURE</u>		
3121	Infrastructure Manager	<div style="display: flex; align-items: center;">  Deleted </div> <div style="border: 1px dashed gray; padding: 10px; margin-top: 10px;"> <p>Change per 2021-11-30:</p> <p>Banedanmark has location specific descriptions defining the preferred inspection tracks and the stopping locations for trains triggering alarms.<u>Deleted</u></p> </div>
3122	Driver, Signaller	<div style="display: flex; align-items: center;">  <p>If a supervised train triggers an alarm, the movement authority will be emergency shortened to the location specified in the location specific descriptions.</p> </div>

3123 Signaller

When receiving an alarm from the tunnel protection system the Signaller must:

- inform the Driver why the train has been stopped
- provide the Driver with available useful information concerning the alarm
- instruct the Driver where to inspect the train
- inform the Network manager.

When the Driver is informed the Signaller may route the train into the inspection track.

3124 Railway Undertaking 

The Railway undertaking must have procedures in place for the Drivers describing when the train can resume operation after inspection.

3125 Driver

The Driver must ensure that the train is inspected train in the assigned inspection track. If the Driver cannot inspect the train safely, the Driver may request the Signaller to provide additional protection by applying the procedure Incidents - Signaller protected area requested by staff.

After inspection the Driver must inform the Signaller about if and how the train can continue operation.

Change per 2021-11-30:

~~When The instructed Driver by must the ensure Signaller, that the Driver must train inspect is the inspected train at in the assigned inspection track. If the Driver cannot inspect the train safely, the Driver may request the Signaller to provide additional protection by applying the procedure {Incidents - Signaller protected area requested by staff}.~~

After inspection the Driver must inform the Signaller about if and how the train can continue operation.

3128 **Handling of a train with a defective train radio in a tunnel**

3129 Precondition A train has a defective train radio. The train is either on approach to a tunnel, or already in the tunnel.

3130 Purpose To ensure that all trains passing through a tunnel can be contacted by the Signaller.

PROCEDURE

3131 Infrastructure Manager 

Deleted

Change per 2021-11-30:

~~Banedanmark has location specific descriptions containing information about restrictions applying to specific tunnels, tunnel approach locations and information on when restrictions must change due to tunnel equipment maintenance. Deleted~~

- 3133 Driver If the Driver observes that the train radio has failed before passing the tunnel approach location the train must not enter the tunnel. The Driver must bring the train to a standstill and apply the procedure Train failure - Train and/or onboard failure during a mission.
- 3134 Driver If the Driver observes that the train radio has failed after passing the tunnel approach location, the Driver must inform the Signaller about which mobile phone number can be used to contact the Driver.
- 3135 Signaller If the Driver reports that the train radio has failed or the Signaller through other sources is informed about a failed radio, the Signaller must apply tunnel restrictions for that train to ensure the application of tunnel distance as far as practicable.

3514 **Incidents**

3515 **Reporting incident**

- 3516 Precondition An incident considered being a threat to the safety of people or the operation of the railway is reported or detected.

Change per 2021-11-30:

An incident considered being a threat to the ~~operationsafety of the railwaypeople~~ or the ~~safetyoperation of peoplethe railway~~ is reported or detected.

- 3517 Purpose To ensure that the incident is reported and appropriate actions are taken.

PROCEDURE

- 3518 Infrastructure Manager  Deleted

Change per 2021-11-30:

~~Banedanmark has procedures describing how to handle reported incidents affecting the operation of the railway or the safety of people or infrastructure. This includes how to report and to whom. Deleted~~

- 3519 All When an incident is observed this must be reported to the Signaller immediately. This report has to include the name and contact information of the observer, location of the incident, what the incident is and any other observations or information that may be relevant.
- 3520 Signaller When the Signaller observes, is involved in or is informed of an incident, the incident must be reported according to the Banedanmark procedure for handling incidents.
- 3521 Signaller If the severity of the reported incident could escalate, the Signaller must attempt to prevent or reduce this by any available means.
- 3522 Signaller If the incident:
 - was caused by a possible Driver error
 - has affected the capability of the Driver to safely drive the train
 - was caused by defective rolling stock
- the Signaller must have permission from the Banedanmark incident investigator prior to allowing the train or vehicle to continue.

Change per 2021-11-30:

- If the incident:
- was caused by a possible Driver error,
 - has affected the capability of the Driver ~~or~~ to safely drive the train
 - was caused by defective rolling stock,

the Signaller must have permission from the ~~Network~~ Banedanmark manager ~~incident investigator~~ prior to allowing the train or vehicle to continue.

- 3523 Signaller If the incident was caused by failure in the infrastructure or the infrastructure is damaged, the Signaller must obtain confirmation from the O&M coordinator that the infrastructure is safe to resume operations.
- 3872 Signaller

Change per 2021-11-30:

If the incident concerns a motorist who passes an activated level crossing, passes right in front of a train or vehicle in an user worked crossing or holds between the barriers in a level crossing, the Signaller must ensure that it is reported to the police .

The notification must, as far as possible, contain information about:

- registration number or the type, brand and color,
- possible company name and other special characteristics,
- the direction of travel of the car and the distance from the train or vehicle,
- the number and location of the level crossing
- information about the notifier.

- 3873 Signaller

Change per 2021-11-30:

In the event of an incident in connection with a level crossing, the Signaller must immediately ensure that a Maintainer is called in and inform the Banedanmark investigation investigator.

3507 **Signaller protected area requested by Emergency services**

3508 **Precondition** A need, identified by the Emergency services, to allow Emergency services access to the track has occurred.

3509 **Purpose** To set up safe conditions to protect the area requested.

PROCEDURE

3510 **Infrastructure Manager**  Deleted

Change per 2021-11-30:

~~Banedanmark has procedures in place to direct all Emergency services communication to the Network manager, who will then distribute the information to the appropriate Signaller.~~ Deleted

3511 **Signaller** When the Signaller is requested by the Network manager to provide a protected area to allow Emergency services access to the track, the Signaller must take appropriate measures to safeguard the area requested.

The Signaller must have in mind that it is not persons with knowledge of the railway who are involved when assessing the area to be protected.

3512 **Signaller** When the area is protected the Signaller must inform Network manager about the boundaries of the area.

3796 **Signaller** The Signaller must ensure that an entry is made in the Signaller log detailing the signaller protected area.

3513 **Signaller** The Signaller must only remove protection after receiving a report from the Network manager that the need for protection is no longer required.



2977 **Emergency**


2978 **Impact with object and/or derailment**

2979 **Precondition** A train or a vehicle has had an impact with an object and/or a derailment severe enough to cause possible damage or threat to any train, vehicle, infrastructure or people.



2980 **Purpose** To prevent the incident from worsening, require relevant help, investigate rolling stock and infrastructure for visible damage and to restore normal operation.



PROCEDURE

2981	Driver	When a train or a vehicle has had an impact with an object and/or a derailment the Driver must do an immediate assessment of the severity of the situation. The Driver must establish if the incident presents any danger to other operations in the area.
2982	Driver	<p>If the incident presents a danger to other operations in the area or if the Driver is not able to assess if there is any danger to other operations the Driver must:</p> <ol style="list-style-type: none"> 1. Emergency brake the train 2. Immediately contact the Signaller using the railway emergency call function by applying the procedure Emergency - Handling railway emergency call 3. Report any immediate danger to other operations in the area.
2983	Railway Undertaking	
2984	Driver	If the Driver believes that the train has struck a person the Driver must follow relevant Railway undertaking procedures and report to the Signaller that the train has struck a person.
2986	Signaller	When the Signaller is informed about a situation where a person is believed to have been struck and/or the train may have derailed, or other immediate danger to other operations in the area exists, the Signaller must immediately stop supervised trains in the relevant area. The Signaller must stop all other movements in the relevant area by applying the procedure Emergency - Stop trains and vehicles from entering hazardous area.
3874	Signaller	<p>Change per 2021-11-30:</p> <p><u>In case rolling stock is derailed, the Signaller must ensure that operation in the affected area remains suspended until the infrastructure is inspected by the relevant Maintainers.</u></p>
2988	Driver	<p>When the train involved in the impact is at standstill the Driver must expect the movement authority to be shortened and without exposing people to danger:</p> <ol style="list-style-type: none"> 1. Attempt to identify the object involved in the impact 2. Re-evaluate danger to other operations in the area 3. Report further findings to the Signaller if any and an estimated time frame for investigating possible damages.
2989	Railway Undertaking	
2990	Driver	When the Driver has reported the findings to the Signaller the Driver must try to establish the possible damage the impact has caused on rolling stock and infrastructure without exposing people to danger.

2992	Driver		If there is no visible damage to the infrastructure, and the train can resume normal operation, the Driver must inform the Signaller, and may then request a movement authority.
2993	Driver		If the train can continue with restrictions applied and/or there is visible damage to the infrastructure, the Driver must inform the Signaller about the restrictions and/or the damage. When the Signaller has been informed, the Driver may request a movement authority.
2994	Driver		If the train cannot be moved the Driver must inform the Signaller.
2995	Signaller		If any damage to the infrastructure has been detected or has been reported by the Driver the Signaller must apply the procedure Infrastructure fault - Handling report of infrastructure fault.
2996	Signaller		If the Driver requests a new movement authority with no information on restricted train capabilities, the Signaller may allow a new movement authority for the train.
2997	Signaller		If the Signaller is informed by the Driver that the train has restricted capabilities the Signaller must update the production plan according to the procedure Normal operation - Signaller handling changes to operation.
2998	Signaller		If the Signaller is informed by the Driver that the train is not to be moved the Signaller must apply the procedure Train failure - Assisting a disabled train.
3000	Signaller		If the Signaller needs additional information to assess the situation the Signaller may apply the procedure Normal operation - Observations while driving.
3003			Stop trains and vehicles from entering hazardous area
3004	Precondition		A train or vehicle is in, about to enter or about to traverse an area identified as hazardous.
3005	Purpose		Reduce the risk of a serious incident by bringing trains and vehicles within or about to enter a hazardous area to a standstill.
			<u>PROCEDURE</u>
3007	Driver, Signaller		<p>Emergency shortening of a movement authority immediately replaces the movement authority held by the train onboard with the new movement authority:</p> <p>If the train has already passed the new end of authority the train will enter TR-mode. In case the train runs at a speed above the intervention curve of the new movement authority, an automatic brake application will occur.</p>
3008	Signaller		If any supervised trains have movement authorities within, entering or traversing the hazardous area the Signaller must protect supervised trains from entering or moving in the hazardous area by applying an emergency stop or emergency shortening any movement authorities to a location as far as possible preventing the train from entering the hazardous area.
3009	Signaller		The Signaller must ensure that any further setting of routes entering or traversing the hazardous area is prevented.

3010	Signaller	<p>If one unsupervised train or vehicle has authority to move in or into the hazardous area the Signaller must use an emergency call to order the Driver to bring the train or vehicle to a standstill.</p> <p>If more than one unsupervised train or vehicle has authority to move in or into the hazardous area the Signaller must use a group emergency call to order the Drivers to bring the train(s) and/or vehicle(s) to a standstill. Following the group call the Signaller must individually contact each Driver in the group to verify that the train(s) and/or vehicle(s) are at a standstill.</p> <p>If there are railway lines running adjacent to the hazardous area on the Fjernbane infrastructure, the Signaller must ensure that the Signaller or Legacy signaller in charge of the adjacent line is informed that the hazardous area involves their line.</p>
<div style="border: 1px dashed black; padding: 10px; background-color: #f0f0f0;"> <p>Change per 2021-11-30:</p> <p>If one unsupervised train or vehicle has authority to move in or into the hazardous area the Signaller must use an emergency call to order the Driver to bring the train or vehicle to a standstill.</p> <p>If more than one unsupervised train or vehicle has authority to move in or into the hazardous area the Signaller must use a group emergency call to order the Drivers to bring the train(s) and/or vehicle(s) to a standstill. Following the group call the Signaller must individually contact each Driver in the group to verify that the train(s) and/or vehicle(s) are at a standstill.</p> <p>If there are railway lines running adjacent to the hazardous area on the Fjernbane infrastructure, the Signaller must ensure that the Signaller <u>or Legacy signaller</u> in charge of the adjacent line is informed that the hazardous area involves their line.</p> </div>		
3011	Signaller	<p>If a shunting area is active within the hazardous area the Signaller must contact the Shunting area manager and order that all movements are brought to a standstill.</p> <p>If shunting movements, on routes for shunting, are being performed within the hazardous area, the Signaller must contact the Shunter and order that the movement is brought to a standstill.</p>
3013	Shunting area manager	If ordered by the Signaller to bring all movements to a standstill, the Shunting area manager must immediately inform the Shunter.
3558	Shunter	If the Shunter is ordered by the Signaller or Shunting area manager to bring the shunting movement to a standstill, the Shunter must do so immediately.
3012	Driver	If the Driver is ordered by the Signaller or Shunter to bring the train or vehicle to a standstill the Driver must do so immediately.

3788	Signaller		When all traffic in the hazardous area has been suspended, the Signaller must inform the Network manager.
			The Signaller must ensure that traffic remains suspended until it is confirmed that it is safe to resume traffic in the area.
			When the Emergency services has been called, the Signaller must only resume traffic in the area when the Network manager has given permission to do so.
3025			Evacuation of train
3026	Precondition		Remaining on the train is hazardous to people on the train and the train must be evacuated.
3027	Purpose		Safe evacuation from a disabled train or a train exposed to any kind of danger as a rescue or precautionary measure.
			<u>PROCEDURE</u>
3028	Railway Undertaking		The Railway undertaking must have procedures in place describing how and when to conduct an evacuation from all types of rolling stock.
3029	Driver		When the Driver has identified that the train must be evacuated the Driver must inform the Signaller about the exact location of the train and request authorisation from the Signaller to ensure safe operational conditions for the evacuation.
3032	Signaller		When the Signaller is informed that an evacuation of a train is to be performed, the Signaller must ensure that all other trains or vehicles vacate the area, or are brought to a standstill. The Signaller must ensure that unsupervised trains and vehicles are not authorised to move in the area.
3033	Signaller		If the Signaller has knowledge of a broken overhead wire in the proximity of the "emergency" train the Signaller must apply the procedure Catenary isolation - Emergency catenary isolation.
3034	Infrastructure Manager		Deleted
			Change per 2021-11-30: Banedanmark has location specific descriptions describing how to conduct an evacuation in an area not easily accessible e.g. on a bridge or in a tunnel in their respective infrastructure areas. Deleted
3035	Signaller		The Signaller must carry out any relevant procedures included in location specific descriptions before authorising the evacuation of the train.
3037	Signaller		When the area is operationally safe for evacuation the Signaller may authorise the Driver to begin evacuation. The Signaller must inform the Network manager that evacuation has been authorised.

3041	Driver		When the Driver is authorised by the Signaller the Driver must follow Railway Undertaking procedures and procedures in location specific descriptions to ensure safe evacuation of the train.
3042	Driver		When the evacuation is completed and the track is clear of staff and passengers the Driver must inform the Signaller that the evacuation is completed.
3043	Signaller		When the Signaller is informed that the evacuation is completed and the track is clear of staff and passengers the Signaller must inform the Network manager and then allow operations to resume.
2846			Emergency brake activated by person
2847	Precondition		Emergency brake is activated by a passenger or train crew member.
2848	Purpose		To examine the reason for the activation and how to proceed if possible.
			<u>PROCEDURE</u>
3089	Driver		<p>If a train is braked without the Driver applying the brake, the Driver must:</p> <ul style="list-style-type: none"> - inform the Signaller - provide an estimate for the time needed for examination - examine the reason for the brake application. <p>The Driver must expect any movement authority to be shortened immediately.</p>
2849	Infrastructure Manager		<p>Deleted</p> <div style="border: 1px dashed gray; padding: 10px; margin-top: 10px;"> <p>Change per 2021-11-30:</p> <p>Banedanmark has defined non-stopping areas. Location specific descriptions will contain information on what the Driver must do in event of receiving an emergency brake application inside a non-stopping area.<u>Deleted</u></p> </div>
2850	Railway Undertaking		The Railway Undertaking must have procedures for handling an emergency brake activation inside a non-stopping area. This must include enabling the Driver to override the emergency brake application when within a non-stopping area. The route book will indicate the location of non-stopping areas.
2851	Driver		If the train is inside a non-stopping area, the Driver must override the emergency brake activation and react according to the location specific description.
2854	Signaller		When the Signaller is informed of an unplanned standstill the Signaller must mark the train with the failed train marking, and use the information on an expected timeframe for fault investigation to update routing of trains to minimise impact to the production plan.

Change per 2021-11-30:

When the Signaller is informed of an unplanned standstill the Signaller must mark the train with the failed train marking, and use the information on an expected timeframe for fault investigation to update routing of trains to minimise impact to the ~~timetable~~ production plan.

2855 Driver

If the situation can be resolved with no restrictions, the Driver must inform the Signaller. When the Signaller has been informed, the Driver may request a movement authority.

If the situation can be resolved but requires restrictions, the Driver must inform the Signaller about the restrictions. When the Signaller has been informed, the Driver may request a movement authority.

If the situation requires the train to be kept at a standstill, the Driver must contact the Signaller.

2856 Signaller

If the Driver requests a new movement authority with no information on restricted train capabilities the Signaller must remove the marking of "failed train" to allow a new movement authority for the train.

2857 Signaller

If the Signaller is informed by the Driver that the train has restricted capabilities the Signaller must:

1. Update the production plan according to the procedure Normal operation - Signaller handling changes to operation
2. Remove the failed train marking to allow a new movement authority for the train.

Change per 2021-11-30:

If the Signaller is informed by the Driver that the train has restricted capabilities the Signaller must:

1. Update the ~~timetable~~ production plan according to the procedure [Normal operation - Signaller handling changes to operation]
2. Remove the failed train marking to allow a new movement authority for the train.

2858 Signaller

If the Signaller is informed by the Driver that the train is not to be moved the Signaller must initiate the procedure Train failure - Assisting a disabled train.

3058

Bridge collision alarm




3059 Precondition



A potential collision with a railway bridge has been reported by a competent person or detected by a collision detection system.

3060 Purpose

To avoid any trains or vehicles being trapped on the bridge when a potential collision has been identified.

PROCEDURE

3061	Infrastructure Manager		Deleted
<div style="border: 1px dashed gray; padding: 10px; background-color: #f0f0f0;"> <p>Change per 2021-11-30:</p> <p>Banedanmark has agreements with the bridge supervising authorities for a bridge collision alarm to provide a minimum of 10 minutes warning before a predicted ship to bridge collision. The Signaller can receive the alarm generated via the SCADA (Supervisory Control And Data Acquisition) system or by a verbal report.<u>Deleted</u></p> </div>			
3062	Signaller		The "Bridge collision" function will stop all trains approaching the bridge and let trains already on the bridge continue.
3063	Signaller		When the Signaller receives a bridge collision alarm the Signaller must: <ol style="list-style-type: none"> 1. Use the "Bridge collision" function to prevent supervised trains from approaching the bridge. 2. Contact any Drivers stopped on the bridge to make immediate arrangements for their trains or vehicles to be moved to a safe location. 3. Follow the location specific instructions for moving trains running on Operational Instructions. 4. Contact any Shunter or PICOP with authority on the bridge.
3064	Signaller		The Signaller must inform the Network manager that further traffic crossing the bridge is suspended due to a potential bridge collision.
3065	Signaller		The Signaller may only resume traffic after receiving authorisation from the person responsible for the specific bridge.
2171			Infrastructure work
2172			Plan possession for corrective maintenance
2173	Precondition		Corrective maintenance has been agreed with the O&M coordinator and a need for a possession has been identified.
2174	Purpose		Planning of possession for corrective maintenance and issuing of possession documentation.
			<u>PROCEDURE</u>
3712	Infrastructure manager		Deleted
<div style="border: 1px dashed gray; padding: 10px; background-color: #f0f0f0;"> <p>Change per 2021-11-30:</p> <p>Banedanmark has a procedure that ensures that persons with competences as a Signaller are always available to check and approve the planning of possessions for corrective maintenance.</p> <p>The procedure ensures that the check and approval of the planning can be done in due time.<u>Deleted</u></p> </div>			

2175	PICOP	<p>The PICOP must contact the Signaller and request a possession for corrective maintenance. The request must contain:</p> <ul style="list-style-type: none"> - a geographical location - a list of ETCS stop markers marking the boundaries of the requested possession - an estimate of the time required for the work.
2176	Signaller	<p>The Signaller must ensure that the possession, including protection requirements, is planned in the signalling system to meet the request of the PICOP.</p> <p>The Signaller must ensure that the planning of the possession is checked and approved by another person with competences as a Signaller.</p>
<p>Change per 2021-11-30:</p> <p>The Signaller must ensure that the possession, including possession protection requirements, is planned in the signalling system to meet the request of the PICOP.</p> <p>The Signaller must ensure that the planning of the possession is checked and approved by another person with competences as a Signaller.</p>		
2177	Signaller	<p> When the planning of the possession is checked and approved, the signalling system will generate a unique possession ID number.</p>
2178	Signaller	<p>If the possession can be planned according to the PICOP's request, the Signaller must inform the PICOP about the possession ID number and the timing of the possession.</p>
2179	Signaller	<p>If the possession cannot be planned according to the request, the Signaller must reject the request and inform the PICOP.</p>
2192	Establish possession with handheld terminal	
2193	Precondition	<p>The PICOP is at the possession site and has requested a planned possession using the handheld terminal. The possession request has been assessed and accepted by the Signaller.</p>
2194	Purpose	<p>Establish a planned possession.</p>
<u>PROCEDURE</u>		
2195	Signaller	<p> When the Signaller has accepted the possession request, the signalling system will commence the protection requirements and present the possession to the Signaller on the signalling control display and request the Signaller to confirm. The possession protection requirements are implemented once the Signaller has confirmed the possession.</p>

Change per 2021-11-30:

When the Signaller has accepted the possession request, the signalling system will commence the ~~possession~~-protection requirements and present the possession to the Signaller on the signalling control display and request the Signaller to confirm. The possession protection requirements are implemented once the Signaller has confirmed the possession.

2196 Signaller

When the Signaller is presented with the possession on the signalling control display, the Signaller must check that the possession data indicated on the signalling control display is consistent with the possession planning.

If the possession data indicated on the signalling control display is consistent with the possession planning, the Signaller must confirm that the protection requirements can be implemented.

Change per 2021-11-30:

When the Signaller is presented with the possession on the signalling control display, the Signaller must check that the possession data indicated on the signalling control display is consistent with the possession planning.

If the possession data indicated on the signalling control display is consistent with the possession planning, the Signaller must confirm that the ~~possession~~-protection requirements can be implemented.

3725 Signaller

If the possession data indicated on the signalling control display is **NOT** consistent with the possession planning, the Signaller must reject the possession and as far as possible plan a new possession in co-operation with the PICOP.

2198 Signaller , PICOP



Once the Signaller has confirmed the possession and the protection requirements are implemented, the signalling system will request the PICOP to prove their location according to possession data. The possession cannot be established until the PICOPs location has been proven correctly.

2199 PICOP

When requested by the signalling system, the PICOP must prove their location by scanning an RFID-tag (Radio-frequency identification) at an ETCS stop marker, or other infrastructure object associated with the possession.



2200 Signaller , PICOP



Scanning an ID-tag not associated with the possession will result in the PICOP receiving an error message on the handheld terminal.

2201 PICOP



If the PICOP cannot prove their location correctly, the PICOP must inform the Signaller.

2202	Signaller , PICOP		When the location of the PICOP is proven correctly, the signalling system will establish the possession and send a message to the handheld terminal confirming to the PICOP that the possession is established.
3789	Signaller		The Signaller must ensure that the establishing time and possession data is recorded in the Signaller log.
2203	PICOP		When the handheld terminal indicates that the possession is established, the PICOP must note the time in the PICOP log. The PICOP must then setup worksite protection.
2206			Establish possession without handheld terminal
2207	Precondition		The PICOP has arrived at the site and is ready to initiate a planned possession. A handheld terminal is not available.
2208	Purpose		Indicating that the PICOP is ready at the site and, if possible, establishing the possession as planned.
			<u>PROCEDURE</u>
2209	PICOP		When the PICOP is ready to initiate the planned possession in an interlocked area, the PICOP must contact the Signaller to request the planned possession. The request must contain: <ul style="list-style-type: none"> <li data-bbox="635 974 925 1008">- possession ID number <li data-bbox="635 1008 774 1041">- PICOP ID <li data-bbox="635 1041 1005 1075">- PICOP mobile phone number <li data-bbox="635 1075 989 1108">- location in the infrastructure. <p data-bbox="635 1153 1460 1265">If the possession is outside the interlocked area and a Shunting area manager is present on site, the PICOP makes the arrangements with the Shunting area manager.</p>
2210	Signaller		When the Signaller is contacted by a PICOP requesting a planned possession, the Signaller must assess if there are any conditions preventing the possession from being established as planned. <p data-bbox="635 1646 1444 1724">If the possession can be established as planned, the Signaller must manually request the possession in the signalling system.</p> <p data-bbox="635 1758 1484 1836">If the possession cannot be established as planned, the Signaller must contact the PICOP and inform about the reason for the rejection.</p>
2211	Signaller		The signalling system can only activate a possession if all elements of the area are not locked by a route, or by an overlap, or reserved by another established temporary shunting area or possession.
3726	Signaller		When the Signaller is presented with the possession on the signalling control display, the Signaller must check that the possession data indicated on the signalling control display is consistent with the possession planning. <p data-bbox="635 1937 1492 2049">If the possession data indicated on the signalling control display is consistent with the possession planning, the Signaller must confirm that the protection requirements can be implemented.</p>

Change per 2021-11-30:

When the Signaller is presented with the possession on the signalling control display, the Signaller must check that the possession data indicated on the signalling control display is consistent with the possession planning.


If the possession data indicated on the signalling control display is consistent with the possession planning, the Signaller must confirm that the ~~possession~~ protection requirements can be implemented.

3727	Signaller		If the possession data indicated on the signalling control display is NOT consistent with the possession planning, the Signaller must reject the possession and as far as possible plan a new possession in co-operation with the PICOP.
3724	Signaller		The possession is established when the Signaller has approved it.
3790	Signaller		The Signaller must ensure that the establishing time and possession data is recorded in the Signaller log.
2212	Signaller		When the possession is approved, the Signaller must request the PICOP to prove their location.
3838	PICOP		After request from the Signaller, the PICOP must prove their location in the infrastructure by reading the ID-number on the plate of an ETCS stop marker associated with the possession.
3839	Signaller		When the PICOP has proven their location correctly, the Signaller must inform the PICOP that the possession is established (including establishing time) and inform about the boundaries of the possession and planned end time.
2213	PICOP		When instructed by the Signaller that the possession is established, the PICOP must register the name of the Signaller as well as time and date of establishing the possession in the PICOP log. The PICOP must then setup worksite protection.
3747			Establish possession in a transition area
3748	Precondition		The PICOP is ready to establish possessions on both sides of the transition point in the transition area.
3749	Purpose		Establishing of possessions in the transition area and ensuring that all relevant agreements are made with the Signallers on both sides of the transition point.
			<u>PROCEDURE</u>
3751	Infrastructure manager		Deleted

Change per 2021-11-30:

~~The Infrastructure manager must ensure that possessions in the transition area are planned and executed as individual possessions on both sides of the transition point with the same PICOP.~~

~~In addition, the Infrastructure manager must ensure that the PICOP is competent to establish possessions on both sides of the transition point.~~
~~Deleted~~

3752	PICOP		The PICOP must apply the procedure Infrastructure work - Request planned possession with handheld terminal or Infrastructure work - Establish possession without handheld terminal to establish the possession in the level 2 area.
3753	Signaller		When receiving a request to establish a possession in a transition area, the Signaller must first contact the Legacy signaller and request that signalling to the transition area is prevented. The Signaller may then apply the procedure Infrastructure work - Request planned possession with handheld terminal or Infrastructure work - Establish possession without handheld terminal.
3754	PICOP		Only when possessions on both sides of the transition point are established and the worksite protection is placed the PICOP may authorise the work to commence.
3755	PICOP, Driver		The signalling system will only allow driving between the two possessions in the direction towards level 2 past the transition point provided that the onboard is in SH-mode and the Driver presses "Override" just prior to passing the transition point. If the Driver does not press "Override" when passing the transition point, the onboard will change to TR-mode.
3756	PICOP		The PICOP may allow driving between the two possessions past the transition point without further authorisation from the Signaller.
3757	Driver		If the onboard changes to TR-mode when driving past the transition point towards level 2 in a possession, the Driver must acknowledge the change to TR-mode and select "Shunting" on the DMI to request SH-mode from the signalling system.
2297			Catenary isolation
2298			Plan catenary isolation
2299	Precondition		A need for a catenary isolation has been identified.
2300	Purpose		To ensure that the catenary isolation is properly planned in respect to the production plan. If needed all agreements with Railway Undertakings are made to make a changed production plan.

Change per 2021-11-30:

To ensure that the catenary isolation is properly planned in respect to the ~~timetable~~production plan. If needed all agreements with Railway Undertakings are made to make a changed ~~timetable~~production plan.

PROCEDURE

2301 Infrastructure Manager



Deleted

Change per 2021-11-30:

~~Banedanmark has procedures in place describing cooperation and responsibility of the roles involved in producing a planned catenary isolation.~~

~~Minimum operational requirements of a catenary isolation (the catenary department might have further requirements):~~

- ~~–unique ID number~~
- ~~–time~~
- ~~–affected catenary section(s).~~Deleted

2967 Infrastructure Manager



Deleted

Change per 2021-11-30:

~~Banedanmark has a procedure describing that the Banedanmark operations planner must evaluate all requests for a catenary isolation and record the result of the evaluation.~~Deleted

2319

Establish planned catenary isolation

2320 Precondition

The Catenary manager is ready to establish a planned catenary isolation.

2321 Purpose

Assess if the planned catenary isolation can be performed as planned and establish the isolation.


PROCEDURE

3856 Catenary manager

The Catenary manager must contact the Signaller and request permission to establish a planned catenary isolation. The request must include a specification of the catenary isolation ID, location and an identification of catenary sections where the power will be isolated.

3857 Signaller

When the Signaller is requested by the Catenary manager to authorise a planned Catenary isolation, the Signaller must assess if there are any conditions which prevents the catenary isolation from being established as planned.

3858	Signaller		If there are any conditions which prevents the catenary isolation from being established as planned, the Signaller must inform the Catenary manager about the reason for the rejection and, if possible, agree on an alternative timing for establishing.
2323	Signaller		The Signaller must ensure that no electrical rolling stock has authority to move in, or into, the area where the planned catenary isolation will be established.
2324	Signaller		If there is NO electrical rolling stock in the area, the Signaller may authorise the Catenary manager to establish the catenary isolation.
2326	Signaller		If there is electrical rolling stock in the area, the Signaller must contact the relevant Railway Undertakings to request that the pantographs are lowered and all electrical trains in the area closes down their driving desks.
2327	Railway Undertaking		The Railway Undertaking has procedures ensuring lowering and reporting on lowered pantographs when requested.
2328	Signaller		When confirmation from the Railway Undertakings is received that electrical rolling stock in the affected area has lowered their pantographs and all electrical trains have closed their desks, the Signaller may authorise the Catenary manager to establish the catenary isolation.
3859	Signaller		The Signaller must ensure that the establishing time of the catenary isolation and other relevant information is recorded in the Signaller log.

2332 Infrastructure Manager



Deleted

Change per 2021-11-30:

~~The FKI contains instructions ensuring the safe isolation of catenary, and instructions ensuring the safety of work crews, including catenary worksite protection.~~ Deleted

2331 Catenary manager

When the Catenary manager receives authorisation from the Signaller the Catenary manager may isolate the power to the catenary sections specified in the agreed catenary isolation plan.

2343

End catenary isolation

2344 Precondition

The work task taking place under catenary isolation has ended.

2345 Purpose

To safely restore electrical power to the relevant catenary sections.

PROCEDURE

2346 Infrastructure Manager



Deleted

Change per 2021-11-30:

~~The FKI contains instructions describing how and when electrical power can be safely restored to isolated catenary sections.~~ Deleted

- 2347 Catenary manager The Catenary manager may restore electrical power to one or more catenary sections when the Catenary field leader confirms that work has ended and the earthing arrangements have been removed. The Catenary manager must inform the Signaller when electrical power has been restored.
- 2350 Signaller When the Signaller is informed by the Catenary manager that electrical power has been restored, the Signaller must inform any Railway Undertaking with electrical rolling stock in the area that the catenary isolation has been ended.
- 2351 Signaller The Signaller must ensure that the end time of the catenary isolation is recorded in the Signaller log.
- 2352 Signaller When the catenary isolation has ended the Signaller may resume normal operation with electrical rolling stock.

2366 **Emergency catenary isolation requested by Emergency services**

2367 Precondition The Emergency services has requested the Network manager for an emergency catenary isolation for the sake of their work. The Network manager has informed the Catenary manager. All driving in the area has been stopped.

2368 Purpose Ensure safe working conditions for the Emergency services.

PROCEDURE

2369 Infrastructure Manager  Deleted



Change per 2021-11-30:

~~Banedanmark has procedures in place to direct all Emergency services communication to the Network manager, who will then distribute the information to the appropriate Signaller.~~Deleted

2373 Infrastructure Manager  Deleted

Change per 2021-11-30:

~~Banedanmark defines in the FKI procedures allowing specially trained Emergency services personnel to setup earthing arrangements in order to speed up fire-fighting and rescue actions upon receiving confirmation that all movements are at a standstill and the power is shut-off.~~Deleted

3863	Catenary manager	<p>The Catenary manager must use the information provided from the Network manager to assess in which catenary sections the power must be isolated and then ensure that the isolation is performed.</p> <p>When the power is isolated, the Catenary manager must inform the Signaller and request a confirmation that all driving in the area has been stopped.</p>
2370	Signaller	<p>When the Catenary manager reports that an emergency catenary isolation has been performed, the Signaller must check if there is any electrical rolling stock in the area.</p> <p>If there is electrical rolling stock in the area, the Signaller must contact the relevant Railway Undertakings and inform that the pantographs must be lowered and all electrical trains in the area must close down their driving desks.</p>
3864	Signaller	<p>The Signaller must ensure that the establishing time of the emergency catenary isolation and other relevant information is recorded in the Signaller log.</p>
3865	Catenary manager	<p>When the Signaller is informed about the emergency catenary isolation and all driving in the area has been stopped, the Catenary manager may allow earthing arrangements to be performed. The permission is given via the Network manager.</p>
2376	<p>End emergency catenary isolation</p>	
2377	Precondition	<p>An emergency catenary isolation has been established. The Catenary field leader has arrived on the scene.</p>
2378	Purpose	<p>To safely initiate the end of an emergency catenary isolation.</p>
<p><u>PROCEDURE</u></p>		
2379	Infrastructure Manager	<p> Deleted</p>
<div style="border: 1px dashed gray; padding: 10px;"> <p>Change per 2021-11-30:</p> <p>Banedanmark defines procedures in FKI to be followed by the Catenary field leader when removing additional earthing equipment set up by Emergency services as well as standard earthing protection. Deleted</p> </div>		
2380	Infrastructure Manager	<p> Deleted</p>

Change per 2021-11-30:

~~Banedanmark has procedures describing communication between Emergency services and the Network manager and Catenary manager.~~

~~The Emergency services informs the Network manager when an emergency catenary isolation is no longer needed.~~

~~The Network manager informs the Catenary manager when an emergency catenary isolation is no longer needed.~~ Deleted

2381 Catenary manager

If an emergency catenary isolation was requested by Emergency services, the Catenary Manger must be instructed by the Network manager that the isolation is no longer needed, before ending the emergency isolation.

2382 Catenary manager

When the emergency catenary isolation is no longer needed, the Catenary Manger must initiate the procedure Catenary isolation - End catenary isolation.

2788

Train failure

2789

Train and/or onboard failure during a mission

2790 Precondition

A train and/or onboard failure has been detected by the Driver.

2791 Purpose

Informing the Signaller of the failure and update of the production plan to incorporate failure related changes.

PROCEDURE

2792 Railway Undertaking



The Railway Undertaking must have procedures, for handling train and/or onboard failures, enabling Drivers to:

- bring trains back into service including any necessary restriction on train capabilities
- determine if the train is not to be moved
- determine need to isolate the onboard.

2793 Driver

When at standstill the Driver must inform the Signaller of expected timeframe for failure investigation/attempt at failure correction. The Driver must expect any movement authority to be shortened immediately.

3770 Driver


If the investigation of the failure requires the Driver to leave the cab, the Driver may request the Signaller to provide additional protection by applying the procedure Incidents - Signaller protected area requested by staff.

2795	Signaller	<p>When the Signaller is informed of an unplanned standstill the Signaller must mark the train with the failed train marking, and ensure that the route associated to the failed train is released.</p> <p>The Signaller must use the information on an expected timeframe for fault investigation to update routing of trains to minimise impact to the production plan.</p> <div style="border: 1px dashed black; padding: 10px; margin: 10px 0;"> <p>Change per 2021-11-30:</p> <p>When the Signaller is informed of an unplanned standstill the Signaller must mark the train with the failed train marking, and ensure that the route associated to the failed train is released.</p> <p>The Signaller must use the information on an expected timeframe for fault investigation to update routing of trains to minimise impact to the timetable<u>production plan</u>.</p> </div>
2796	Driver	<p>The Driver must examine the train to determine the failure.</p> <p>If the failure can be resolved with no restrictions the Driver must inform the Signaller.</p> <p>If the failure can be resolved but restrictions must be applied, the Driver must inform the Signaller about the restrictions.</p> <p>If the failure can only be resolved by the Driver isolating the onboard the Driver must inform the Signaller before isolating.</p> <p>If the train cannot be moved, the Driver must inform the Signaller.</p>
3771	Driver	<p>If the Driver during the investigation needs to inspect the loading of a wagon, the Driver must ensure that the inspection can be done without violating the protective distance as well as ensuring, that no part of the wagon or its load has come into contact with the catenary system</p> <p>If the conditions listed above cannot be met, the Driver must inform the Signaller that the inspection of the load cannot be performed unless the Catenary manager has reported that the power is switched off, and that earthing arrangements has been put in place.</p>
2797	Signaller	<p>If the Driver requests a new movement authority with no information on restricted train capabilities the Signaller must remove the failed train marking to allow a new movement authority for the train.</p>
2798	Signaller	<p>If the Signaller is informed by the Driver that the train has restricted capabilities the Signaller must:</p> <ol style="list-style-type: none"> 1. Update the production plan to incorporate and minimise the effect of the restricted capabilities according to the procedure Normal operation - Signaller handling changes to operation 2. Remove the failed train marking to allow a new movement authority for the train.

Change per 2021-11-30:

If the Signaller is informed by the Driver that the train has restricted capabilities the Signaller must:



1. Update the ~~timetable~~ production plan to incorporate and minimise the effect of the restricted capabilities according to the procedure [Normal operation - Signaller handling changes to operation]
2. Remove the failed train marking to allow a new movement authority for the train.

3549	Signaller	If the Signaller is informed by the Driver that the onboard is isolated the Signaller must initiate the procedure Train failure - Isolate onboard.
2799	Signaller	If the Signaller is informed by the Driver that the train is not to be moved the Signaller must initiate the procedure Train failure - Assisting a disabled train.
2825		Assisting a disabled train
2826	Precondition	A train is disabled. The Driver has determined that the train cannot be moved.
2827	Purpose	To assist a disabled train either by repairing it on site or moving it by an assisting train.
		<u>PROCEDURE</u>
2828	Driver	<p>The Driver must inform the Signaller of:</p> <ul style="list-style-type: none"> - location of train - relevant description of problem - kind of help needed.
2829	Signaller	The Signaller must pass information received from the Driver on to the Network manager.
2830	Infrastructure Manager	<div style="display: flex; align-items: center;">  <p>Deleted</p> </div>

Change per 2021-11-30:

~~Banedanmark has descriptions defining how the Network manager can decide between to send a maintainer to repair the train on site or to send an assisting train.~~

~~If the decision is to send an assisting train, the Network manager initiates that an existing timetable is changed or an extra train is announced.~~ Deleted

2831	Signaller	<p>The Signaller must ensure that the Driver on the disabled train is informed that an assisting train is approaching and from which direction.</p> <p>Before setting a route to a track section where a disabled train is located, the Signaller must ensure that the Driver of the assisting train is informed that the train is entering an occupied section.</p>
2832	Signaller	<p>The Signaller must initiate the procedure Normal operation - Planned joining.</p>
3306	Moving defective rolling stock	
3307	Precondition	<p>Rolling stock cannot be made safe for normal operation, but has to be moved.</p>
3308	Purpose	<p>Moving defective rolling stock to a non interlocked area or depot with restrictions.</p>
<u>PROCEDURE</u>		
3309	Railway Undertaking	
		<p>The Railway Undertaking must have procedures for inspecting and moving defect rolling stock. The procedure states how the rolling stock is prepared, the conditions for moving it and at what speed the defective rolling stock can be moved.</p>
		<p>The procedure describes the communication to the Network manager.</p>
3310	Infrastructure Manager	
		<p>Deleted</p>
<p>Change per 2021-11-30:</p> <p>Banedanmark has procedures to ensure the movements of defective rolling stock are planned in cooperation with the Railway Undertaking. The Signaller is informed about the movements, including the necessary safety precautions. Deleted</p>		
3311	Driver	<p>The Driver must inform the Signaller when the defective rolling stock is ready to be moved, and confirm the restrictions under which the defective rolling stock is to be moved.</p>
3312	Signaller	<p>When the Signaller receives confirmation that the defective rolling stock is ready to be moved the Signaller must:</p> <ol style="list-style-type: none"> 1. Arrange with the Driver the establishment of a temporary shunting area and necessary safety precaution as planned by the Network manager 2. Instruct the Driver about the shunting movement to be performed 3. Ensure that no trains or vehicles have authority to move within the temporary shunting area.
3313	Signaller	<p>When the temporary shunting area is set up and protected the Signaller may authorise the Driver to proceed.</p>
3314	Driver	<p>When authorised to proceed by the Signaller the Driver may perform the shunting movement as instructed.</p>

3315 Driver When the shunting movement has been completed, and the defective rolling stock is at a standstill, the Driver must ensure that the rolling stock is complete. The Driver must contact the Signaller and report that the defective rolling stock is complete and that the shunting movement is ended.

3316 Signaller When the Driver reports the defective rolling stock complete and the shunting movement ended, the Signaller may end the temporary shunting area.

2875 **Weather conditions**

2876 **Handling of wind restrictions**

2877 Precondition Wind has risen above the specified level.


2878 Purpose Ensuring that all relevant wind restrictions described in the location specific description are implemented and respected.

PROCEDURE

2879 Infrastructure Manager  Deleted

Change per 2021-11-30:

~~Banedanmark has location specific descriptions defining at which wind speeds wind restrictions in a particular area are to be activated, and describes how an alarm is sent to the Signaller. Wind restrictions may be different from area to area and the relevant restriction is determined by the immediate wind speed.~~
Deleted

2880 Signaller  Temporary speed restrictions, with associated text messages, are predefined in the signalling system for areas with foreseeable high wind influence. These temporary speed restrictions can be quickly activated by the Signaller upon receiving an alarm.

2881 Signaller When the Signaller receives an alarm of high winds the Signaller must immediately implement wind restrictions in the signalling system according to the location specific description for the area concerned.

Before activating a wind restriction, the Signaller must take into account that some types of wind restrictions are valid for specific train types only.



When wind related restrictions are implemented the Signaller must inform the Network manager.

2884 **Removal of wind restrictions**

3592 Precondition The speed of the wind is below the speed stated in location specific descriptions.

2885 Purpose Removal of wind related restriction when wind speed has dropped sustainably.

PROCEDURE

2886	Infrastructure Manager		Deleted
<div style="border: 1px dashed gray; padding: 10px; background-color: #f0f0f0;"> <p>Change per 2021-11-30:</p> <p>Banedanmark has location specific descriptions defining when wind restrictions can be removed and how the Signaller is informed. <u>Deleted</u></p> </div>			
2887	Signaller		When the conditions in the location specific description are met the Signaller may remove wind restrictions.
2888	Signaller		The Signaller must inform the Network manager when wind restrictions are removed.
2861			Snow clearing
2862	Precondition		A snow clearing train is prepared with snow ploughs coupled to it front and rear.
2863	Purpose		Update train data and ensure that the driving of the snow clearing train is performed safely.
<u>PROCEDURE</u>			
2864	Infrastructure Manager		Deleted
<div style="border: 1px dashed gray; padding: 10px; background-color: #f0f0f0;"> <p>Change per 2021-11-30:</p> <p>Banedanmark has snow clearing guidelines describing how to carry out snow clearing. <u>Deleted</u></p> </div>			
2865	Driver		When snow ploughs has been coupled to the train front and rear, the Driver must update the onboard train data according to the procedure Normal operation - Update onboard train data.
2866	Driver		The Driver must contact the Signaller and report the snow clearing train ready.
2868	Signaller		When the Driver reports the snow clearing train ready, the Signaller must ensure that no other trains or vehicles has authority to move in, or into, the track sections behind and in front of the snow clearing train.
			The Signaller must use manual route setting for the snow clearing train.
2869	Driver		If large snow drifts require the Driver to change driving direction in order to get a longer run up, the Driver must inform the Signaller.
			The Driver must close down the desk of the lead cab, proceed to the other cab and apply the procedure Normal operation - Enter onboard train data.

2871	Signaller	When the Signaller is informed about the need for changing driving direction, the Signaller must use manual route setting for the snow clearing train in the opposite direction.
2872	Driver	The Driver must report to the Signaller when driving has finished and the snow clearing train is at a standstill.

3329

Shunting

3342



Shunting on a route using a handheld terminal

3343	Precondition	A Shunter has identified the need for an immediate shunting movement with no intermediate stops, to take place outside of a shunting area. The movement cannot be controlled from the front cab. The Shunter has a handheld terminal available.
3344	Purpose	To enable a safe movement outside a shunting area without an active desk in front of the direction of travel.

Change per 2021-11-30:

To enable a safe movement outside a shunting area without an active ~~cab~~desk in front of the direction of travel.

PROCEDURE

3345	Signaller, Shunter		Planned routes for shunting can be requested by a handheld terminal and will consist of a route that will be released behind the movement as the movement travels through the route. Once the train is in SH-mode, the data communication is ended with the signalling system. Therefore, to receive new information the train must exit SH-mode to re-establish a communication session with the signalling system.”
3346	Shunter		The Shunter must use the handheld terminal to request the planned route for shunting.
3347	Signaller, Shunter		The signalling system will assess requests for routes for shunting for possible operational conflicts with other routes. The signalling system will request the Signaller to acknowledge, change or reject a proposed route for shunting before the route is automatically set.
3348	Signaller		If the Signaller receives a request from the signalling system to set route for shunting, the Signaller must perform one of the following actions: - accept the proposed route for shunting - manually update the timing of the proposed route for shunting - reject the route for shunting.

3349	Shunter	<p>When a route for shunting is indicated as granted on the handheld terminal, the Shunter must instruct the Driver to select SH-mode, if the train is not already in SH-mode, and perform the shunting movement.</p> <p>The Shunter must ensure the shunting movement:</p> <ul style="list-style-type: none"> - is performed immediately - is run in the forward direction of the route for shunting only - concludes without intermediate stops - ends at the planned location.
3744	Shunter	<p>The Shunter must ensure that all level crossings included in the route for shunting are activated and are protected, just prior to the passing. The Shunter must ensure that level crossings are deactivated immediately after passing the level crossing.</p> <p>If a level crossing cannot be protected, and the cab is in the forward facing end of the movement, the Shunter must instruct the Driver to use sound signal "Warning" until the cab has cleared the level crossing. If the cab is not in the forward facing end of the movement, the Shunter must stop the road traffic by using hand signal "Road traffic, stop". When the hand signal is used, the Shunter must instruct the Driver not to use sound signal "Warning" during the passing of the level crossing.</p>
3350	Shunter	<p>When the shunting movement has reached the end location of the route for shunting, and the location is outside a possession or shunting area, the Shunter must instruct the Driver to exit SH-mode.</p>
3351	Shunter	<p>If a request for a route for shunting is rejected, the Shunter must perform one of the following actions:</p> <ul style="list-style-type: none"> - request the route at another time - request another route - contact the Signaller to plan an alternative solution.
3354		<p>Shunting on a route without using a handheld terminal</p>
3355	Precondition	<p>A Shunter has identified the need for an immediate shunting movement with no intermediate stops, to take place outside of a shunting area. The movement cannot be controlled from the cab in the front end of the train. No handheld terminal is available.</p>
<p>Change per 2021-11-30:</p> <p>A Shunter has identified the need for an immediate shunting movement with no intermediate stops, to take place outside of a shunting area. The movement cannot be controlled from the <u>cab in the front end of the train</u>. No handheld terminal is available.</p>		
3356	Purpose	<p>To enable a safe shunting movement outside a shunting area where the train cannot be controlled from a cab in the front end of the train.</p>

Change per 2021-11-30:

To enable a safe shunting movement outside a shunting area ~~without where an~~ the active train cannot be controlled from a cab in the front end of the direction of travel train.

PROCEDURE

3357 Signaller, Shunter



Deleted

Change per 2021-11-30:

~~Routes for shunting can be set by the Signaller and will consist of a route that will be released behind the movement as the movement travels through the route.~~

~~Once the train is in SH mode, the data communication is ended with the signalling system. Therefore, to receive new information the train must exit SH mode to re-establish a communication session with the signalling system.~~ Deleted

3358 Shunter

The Shunter must contact the Signaller and request the route for shunting. The request for a route for shunting must contain the start and end location of the route.

If the route for shunting is to be used by a train the request must include the train running number. If no train running number is available the fixed traction unit number, of the unit from which the train is driven, is used. The Shunter must ensure the train is not in SH-mode when the route is requested.

3359 Signaller

The Signaller must assess the request for conflicts with other routes. If the end location for the route for shunting is in a possession or shunting area, the Signaller must first contact the PICOP or Shunting area manager and request permission for the movement.

When the route for shunting is set, the Signaller must verify that the indication on the signalling control display is correct and then authorise the Shunter to perform the shunting movement.

Change per 2021-11-30:

The Signaller must assess the request for conflicts with other routes, and if either the set end location for the route for shunting or reject the request.

If in the a Signaller possession sets or the shunting route area, the Signaller must verify first that contact the route is indicated on PICOP the signalling Shunting control area display manager and then request inform permission the for Shunter, the that movement.

When the route for shunting has been granted.

If set, the Signaller rejects must verify that the request indication for on the route signalling for control shunting, display the Signaller correct must and contact then authorise the Shunter to inform them, that perform the route for shunting cannot be granted movement.

3360 Shunter

When the Signaller grants a route for shunting, the Shunter must instruct the Driver to select SH-mode, if the train is not already in SH-mode, and perform the shunting movement.

The Shunter must ensure the shunting movement:

- is performed immediately
- is run in the forward direction of the route for shunting only
- concludes without intermediate stops
- ends at the planned location.

3745 Shunter

The Shunter must ensure that all level crossings included in the route for shunting are activated and is protected just prior to the passing. The Shunter must ensure that level crossings are deactivated immediately after passing the level crossing.

If a level crossing cannot be protected, and the cab is in the forward facing end of the movement, the Shunter must instruct the Driver to use sound signal "Warning" until the cab has cleared the level crossing. If the cab is not in the forward facing end of the movement, the Shunter must stop the road traffic by using hand signal "Road traffic, stop". When the hand signal is used, the Shunter must instruct the Driver not to use sound signal "Warning" during the passing of the level crossing.

3361 Shunter

When the shunting movement has reached the end location of the route for shunting, and the location is outside a possession or shunting area, the Shunter must instruct the Driver to exit SH-mode.