



**BANEDANMARK**

# **ORF**

## **Operational Rules for fjernbane**

**ORF-23-1 valid from 25.03.2023**

## Changes since previous version

IN.58

### Change per 2023-03-25:

#### Definitions

#### "Catenary isolation"

The responsibility of the Signaller is moved to the definition "Electrical rolling stock restriction".

#### "Electrical rolling stock restriction"

The definition "Electrical traction unit restriction" is renamed to "Electrical rolling stock restriction" to clarify that the restriction applies to all electrical rolling stock and not just traction units.

The wording of the definition is adjusted to describe that the electrical rolling stock restriction is unambiguously maintained by the Signaller and not by a technical functionality of the signalling system. The function is activated in the signalling system for graphical purposes only on the signalling control display. The responsibility to prevent unintentional entry of electrical rolling stock into the isolated catenary sections, in the interlocked area, lies with the Signaller alone.

The electrical rolling stock restriction is a combination of the signalling system's visual indication of the catenary isolation and the Signaller's own protection e.g., prevention of route setting to the area.

These changes are temporary and expected changed again once the full functionality is delivered by the suppliers of the signalling systems.

#### Procedures

Changes made to the procedures "Establish planned catenary isolation", "End catenary isolation", "Emergency catenary isolation" and "Emergency catenary isolation requested by Emergency services".

In addition to some editorial changes, the procedures are updated to include the "Electrical rolling stock restriction". Furthermore, it is clarified when the Signaller must activate the restriction.

The procedure "Handling of a train with a defective train radio in a tunnel" is deleted as a part of the commissioning of line 6 where these requirements were not applicable prior to commissioning either. In the future, tunnel requirements will be described in location specific descriptions.

## Definitions

OR.DEF.684

### Catenary

OR.DEF.276

### Catenary isolation

OR.DEF.277 **DEFINITION** A catenary isolation is shutting off power to one or more catenary sections.

A catenary isolation does not necessarily require a possession. A catenary isolation only affects electrical rolling stock, diesel powered rolling stock may continue running.

Responsibilities

OR.DEF.658 **Signaller** Deleted

**Change per 2023-03-25:**  
~~You must ensure that electrical rolling stock are not authorised to move into an area without catenary power in the interlocked area.~~ Deleted

OR.DEF.685 **Degraded operation**

OR.DEF.297 **Electrical rolling stock restriction**

**Change per 2023-03-25:**  
~~Electric~~ Electrical traction rolling unit stock restriction

OR.DEF.298 **DEFINITION** An electrical rolling stock restriction is an indication on the signalling control display which is activated in the relevant catenary sections when a catenary isolation or emergency catenary isolation is established and means, that electrical rolling stock must not be given authority to move into the isolated area.

The Signaller is responsible for maintaining the electrical rolling stock restriction during the catenary isolation or emergency catenary isolation.

**Change per 2023-03-25:**

Electric traction unit An restriction electrical is rolling a stock restriction to ensure that electric traction units are not routed into tracks without a catenary system or where the catenary system is reported as isolated.

For an supervised indication movements on the electric signalling traction control unit display restriction which is managed activated by in the signalling system. Route setting for trains identified as electric traction unit(s) relevant into catenary tracks sections without when a catenary system isolation or with a emergency catenary system reported as isolated isolation will is require established and specific means. Signaller that override.

For electrical unsupervised rolling movements stock the must electric not traction be unit given restriction authority is to managed move by into the Signaller isolated area.

Tracks The not Signaller equipped is with responsible for catenary maintaining system the are electrical marked rolling by stock electrical restriction unit during stop the markers catenary and isolation point or position emergency indicators catenary isolation.

Responsibilities

OR.DEF.903 Signaller

**Change per 2023-03-25:**

You must ensure that the electrical rolling stock restriction is maintained for as long as the power is isolated, and by doing so, ensuring that electrical rolling stock is not unintentionally moved into the isolated area.

OR.DEF.904 Signaller

**Change per 2023-03-25:**

Before issuing an authority to move into an isolated area, you must contact the Driver or Shunter to confirm that it is not electrical rolling stock.

**Procedures**

---

3117		<b>Tunnel</b>
3128		<b>Deleted</b>
3129	Precondition	Deleted
3130	Purpose	Deleted
3133	Driver	Deleted
3134	Driver	Deleted
3135	Signaller	Deleted

**Change per 2023-03-25:**  
~~Handling of a train with a defective train radio in a tunnel~~Deleted

**Change per 2023-03-25:**  
~~A train has a defective train radio. The train is either on approach to a tunnel, or already in the tunnel.~~Deleted

**Change per 2023-03-25:**  
~~To ensure that all trains passing through a tunnel can be contacted by the Signaller.~~Deleted

#### **PROCEDURE**

**Change per 2023-03-25:**  
~~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].~~Deleted

**Change per 2023-03-25:**  
~~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.~~Deleted

**Change per 2023-03-25:**

~~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. Deleted~~

2318

## Catenary isolation

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 without affecting safety or operations.

**Change per 2023-03-25:**

Assess if the planned catenary isolation can be performed as planned ~~and without establish affecting the safety isolation or operations.~~

### 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, the Signaller must inform the Catenary manager about the reason for the rejection and, if possible, agree on an alternative timing for establishing.

**Change per 2023-03-25:**

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.

3891 Signaller

**Change per 2023-03-25:**

If there are no conditions which prevents the catenary isolation from being established, the Signaller must ensure that no electrical rolling stock has authority to move in, or into, the catenary sections where the power will be isolated. The Signaller must then ensure, that the electrical rolling stock restriction is activated in the signalling system.

2323 Signaller

Deleted

**Change per 2023-03-25:**

~~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.~~  
Deleted

2324 Signaller

Deleted

**Change per 2023-03-25:**

~~If there is NO electrical rolling stock in the area, the Signaller may authorise the Catenary manager to establish the catenary isolation.~~  
Deleted

2326 Signaller

If there is electrical rolling stock parked in the area, the Signaller must contact the relevant Railway Undertakings to request that the pantographs are lowered and all electrical rolling stock in the area closes down their driving desks.

**Change per 2023-03-25:**

If there is electrical rolling stock parked in the area, the Signaller must contact the ~~relevant~~relevant Railway Undertakings to request that the pantographs are lowered and all electrical ~~trains~~rolling stock 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 parked electrical rolling stock in the affected area has lowered their pantographs and all electrical rolling stock have closed their desks, the Signaller may authorise the Catenary manager to establish the catenary isolation.

**Change per 2023-03-25:**

When confirmation from the Railway Undertakings is received that parked electrical rolling stock in the affected area has lowered their pantographs and all electrical ~~trains~~rolling stock 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.

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 Ensure that electrical power is safely restored in the isolated catenary sections.

**Change per 2023-03-25:**

~~To safely~~Ensure ~~restore that~~ electrical power ~~is safely restored in~~ the ~~relevant~~isolated catenary sections.

**PROCEDURE**

2347 Catenary manager The Catenary manager may restore electrical power to the isolated 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.

**Change per 2023-03-25:**

The Catenary manager may restore electrical power to ~~one of the~~ ~~more~~isolated 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 Catenary manager reports that electrical power has been restored, the Signaller must ensure that the electrical rolling stock restriction is deactivated.

The Signaller must then inform any Railway Undertaking with parked electrical rolling stock in the area that the catenary isolation has been ended.



**Change per 2023-03-25:**

When the Signaller is informed by the Catenary manager reports that electrical power has been restored, the Signaller must ensure that the electrical rolling stock restriction is deactivated.

The Signaller must then inform any Railway Undertaking with parked 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.

2355 **Emergency catenary isolation**

2356 Precondition The need for an immediate catenary isolation has occurred.

2357 Purpose Handling of an emergency catenary isolation to reduce the risk of injury to people or damage to trains, vehicles or infrastructure.

**Change per 2023-03-25:**

~~Perform~~ Handling of an emergency catenary isolation to reduce the risk of injury to people or damage to trains, vehicles or infrastructure.

**PROCEDURE**

2358 Catenary manager The Catenary manager must assess in which catenary sections the power must be isolated and then ensure that the isolation is performed.

When the power is isolated, the Catenary manager must inform the Signaller.

2362 Signaller When the Signaller has received information about an emergency isolation in one or more catenary sections, the Signaller must ensure that all driving in the area is stopped by applying the procedure Emergency - Stop trains and vehicles from entering hazardous area. The Signaller must then ensure that the electrical rolling stock restriction is activated in the signalling system.

**Change per 2023-03-25:**

When the Signaller has received information about an emergency isolation in one or more catenary sections, the Signaller must ensure that all driving in the area is stopped by applying the procedure [Emergency - Stop trains and vehicles from entering hazardous area].

~~If there is electrical rolling stock in the area, the~~The Signaller must ~~contact the relevant Railway Undertakings and then inform~~ensure that the pantographs must be ~~electrical~~ lowered ~~rolling and stock~~ all ~~restriction electrical~~ is ~~trains~~activated in the area ~~must close down~~ their ~~driving~~signalling desksystem.

3892 Signaller

**Change per 2023-03-25:**

If there is electrical rolling stock in the area, the Signaller must contact the Driver and inform that the pantographs must be lowered and the desk must be closed.

If there is electrical rolling stock parked in the area, the Signaller must contact the relevant Railway Undertakings to request that the pantographs are lowered and the driving desks are closed.

3860 Signaller

The Signaller must inform the Catenary manager when all driving in the area has been stopped.

3861 Signaller

The Signaller must ensure that the establishing time of the emergency catenary isolation and other relevant information is recorded in the Signaller log.

3862 Catenary manager

When the Signaller reports that all driving in the area has been stopped, the Catenary manager may allow earthing arrangements to be performed.

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**

- 3863 Catenary manager 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.
- 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.
- 2370 Signaller When the Catenary manager reports that an emergency catenary isolation has been performed in one or more catenary sections, the Signaller must ensure that the electrical rolling stock restriction is activated in the signalling system.
- Change per 2023-03-25:**

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.~~

~~If there is electrical rolling stock in more the catenary area sections, the Signaller must contact the relevant Railway Undertakings and inform ensure that the pantographs must be electrical lowered rolling and stock all restriction electrical is trains activated in the area must close down their driving signalling desks system.~~
- 3893 Signaller
- Change per 2023-03-25:**

If there is electrical rolling stock in the area, the Signaller must contact the Driver and inform that the pantographs must be lowered and the desk must be closed.

If there is electrical rolling stock parked in the area, the Signaller must contact the relvant Railway Undertakings to request that the pantographs are lowered and the driving desks are closed.
- 3864 Signaller The Signaller must ensure that the establishing time of the emergency catenary isolation and other relevant information is recorded in the Signaller log.
- 3865 Catenary manager 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.