



BUNDESAMT FÜR VERKEHR
OFFICE FÉDÉRAL DES TRANSPORTS
UFFICIO FEDERALE DEI TRASPORTI
FEDERAL OFFICE OF TRANSPORT

Guidelines

Articles 6a, 7 and 8 of the Ordinance on the Construction and Operation of Railways (Railways Ordinance)

Approval of rolling stock

Federal Office of Transport (FOT)

1 April 2002

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Annexes

- 1) Applicable vehicles and components
- 2) Specific application details and vehicle data sheet

1 Purpose

The aim of these guidelines is to explain the approval procedures for railway vehicles or components to applicants and other interested parties.

They explain the practical application of existing laws, ordinances and implementation regulations concerning the approval of railway vehicles and components.

This document does not have the status of a law or ordinance, but it is more binding than a mere recommendation. Deviations are permissible as long as the objectives pursued by the law, ordinance and guidelines are still attained in another manner. Applicants who closely observe these guidelines may be certain that the authorities will accept their application for consideration. Failure to do so may result in the rejection of their application.

2 Approval procedure

The approval procedure normally involves three steps:

2.1 Specification and drawing of vehicle or component

Prior to commencement of construction, the FOT has to examine the specification for the vehicle or component(s) concerned, and notify the applicant about its findings (Article 8w, Paragraph 2, Railways Act¹; Article 6a, Railways Ordinance²).

2.2 Approval

Approval applies to vehicles and components thereof (cf. Annex 1 for scope of application), that are used for series application in an identical manner and function. The aim of approval is to facilitate and accelerate the examination process of the FOT within the scope of operating authorisation procedures (Article 7, Railways Ordinance).

2.3 Operating authorisation

Each vehicle that is operated in Switzerland requires a valid operating authorisation (Article 8, Railways Ordinance). This provision is subject to section 8.4 below.

3 Definitions of terms used in these guidelines:

- a) *Applicant*: Manufacturer or his authorised agent, proprietor or holder of rolling stock, network user³ and infrastructure operator⁴ are entitled to apply to the FOT for approval.

¹ SR 742.101

² SR 742.141.1

³ Article 2, Paragraph b, Ordinance on Access to the Railway Network (SR 742.122)

⁴ Article 2, Paragraph a, Ordinance on Access to the Railway Network (SR 742.122)

- b) *Approval concept*: The FOT's approval concept stipulates the organisation, responsibilities, required documentation, the specialists entrusted with the task of producing the necessary safety case documents (cf. 6.4) and the schedule for the approval procedure.
- c) *Specified safety requirements*: Collective term that encompasses all safety requirements that have to be identified and specified by the applicant on the basis of legally binding safety regulations and technical rules for the vehicle or component(s) concerned.
- d) *Safety case*: Documentary evidence supplied by the applicant that the vehicle or component(s) concerned meet all the specified safety requirements in accordance with the applicable safety regulations.
- e) *Approval of specification and drawing of vehicle or component(s)*: Confirmation on the part of the FOT that the specification and drawing of the vehicle or component(s) concerned meet the requirements of the Railways Ordinance⁵ and its implementation provisions⁶.
- f) *Type approval*: Decision in which the OFT confirms that the vehicle type or component(s) concerned have been examined from both a technical and an operational point of view and are suitable for use for a specific purpose under specific conditions and – if applicable – that their interoperability⁷ is assured. In the case of vehicles, approval is normally granted at the same time as the issue of an operating authorisation for the first vehicle in a series.
- g) *Operating authorisation*: Decision in which the OFT confirms that the vehicle or component(s) concerned have been examined from both a technical and an operational point of view and are suitable for use for a specific purpose under specific conditions and – if applicable – that their interoperability is assured. If a certificate of approval already exists, the operating authorisation also specifies conformity with the type concerned.

4 Obligations on the part of applicants

Applicants are required to:

- Ensure the safety of the vehicle or component concerned as well as its multiple use in identical manner and function (development, trials, production, storage, transport, operation, maintenance, disposal)
- Specify the conditions of use
- Specify the safety requirements
- Produce the necessary safety case (cf. 6.4 below)

The applicant is the sole party answerable towards the FOT in the approval procedure.

⁵ SR 742.141.1

⁶ SR 742.141.11

⁷ Article 7, Paragraph 1b, Ordinance on Access to the Railway Network (SR 742.122): The equipment of the vehicle must comply with the specifications for the railway network as laid down by the Federal Office of Transport.

5 FOT

The FOT carries out the following actions within the scope of its approval procedure:

- Checks that the application is complete (cf. 6.2 below)
- Request applicant to assist in planning the procedure (cf. 6.3 below)
- Specifies the course of the approval procedure (cf. 6.3 below)
- Approves the specification and drawing⁸ if applicable (cf. 6.6 below)
- Issues the necessary authorisation for operational tests (cf. 6.6 below)
- Carries out the approval examination (cf. 6.5 below)
- Issues the approval certificate⁹ (cf. 6.6 below)
- Issues the operating authorisation¹⁰ (cf. 6.6).

NB: The FOT acts solely as examining and approval authority.

6 Approval procedure

The approval procedure itself is based on these guidelines and the provisions of the Federal Administrative Procedures Act¹¹.

6.1 Application

6.1.1 Required information

The person signing the application on behalf of the applicant is required to submit the following **information**:

- Title of application: "Application for ..."
- Name and address of applicant
- Description of purpose, use and model of vehicle or component(s)
- Technical identification of vehicle or component(s)
- Details concerning origin of vehicle or component(s)
- Conditions of use under which the approval is to apply
- Details concerning any already existing approvals (including by foreign authorities)
- Specified safety requirements (if already available)
- Safety case (cf. 6.4 below), if already available
- Draft of schedule for the approval procedure

⁸ Article 6a, Railways Ordinance (SR 742.141.1)

⁹ Article 7, Railways Ordinance (SR 742.141.1)

¹⁰ Article 8, Railways Ordinance (SR 742.141.1)

¹¹ Federal Administrative Procedures Act, SR 172.021

The above general information has to be supplemented with **specific details** as stipulated in Annex 2.

6.1.2 Addresses

Applications for approval of vehicles and their components should be sent to the following address:

Federal Office of Transport
Rolling Stock section
Bollwerk 27
CH 3003 Berne

Telephone enquiries: 031 323 04 57 (from abroad: +41 31 323 04 57)

Enquiries may also be made by e-mail to the following addresses:

zulassung@bav.admin.ch or
homologation@bav.admin.ch or
approvazione@bav.admin.ch or
approval@bav.admin.ch

6.2 Examination of application

The FOT ascertains whether the application is complete (i.e. whether it contains all the necessary information for carrying out a detailed examination). It then contacts the applicant within 30 days after its receipt of the application to confirm the initiation of the approval procedure, to request more information (if necessary), or to reject the application. If the application fails to respond within the stated deadline, the FOT will not process the application.

6.3 Planning the approval procedure

The FOT and the applicant jointly clarify the following details within 30 days after the initiation of the approval procedure (at a date to be set by the FOT):

- Applicant's approval concept
- Course of approval procedure

6.4 Safety case

The applicant is responsible for providing the necessary safety case.

It is obliged to provide evidence of the fact that all specified safety requirements are duly met. These include the relevant safety requirements stipulated in the Railways Ordinance and its accompanying implementation provisions. The required documents are stipulated in Article 6.1 of the above-mentioned implementation provisions. In the event of any deviations from the relevant regulations and cited figures in the Railways Ordinance and its accompanying implementation provisions, the

applicant is required to provide evidence of an equivalent level of safety in accordance with the provisions of EN 50126¹².

The applicant may call on the necessary experts for producing this safety case.

6.5 Examinations to be carried out by the FOT

The FOT verifies at least the following aspects on the basis of the Railways Ordinance and its accompanying implementation provisions:

- The specified safety requirements
- The safety case (for completeness, stated purpose and plausibility)
- Compliance of vehicles and components that may be used for network access, or together with the infrastructure of another construction company, with the interoperability requirements
- Structure and function of vehicles and components (random samples), and maintenance planning.

6.6 Approval

The FOT issues the approval certificate. The procedure normally includes the approval of the specification and drawings, the approval certificate itself and/or an operating authorisation.

The validity of a approval may be limited to a specified period and/or attached to certain conditions.

7 Subsequent modifications

Any significant technical modifications must be reported to the FOT in accordance with Article 15.1 of the implementation provisions of the Railways Ordinance.¹³ The FOT decides whether modifications carried out on an approved vehicle or component call for a new approval procedure. Here the FOT only examines those items or parts that have been modified and any others that may affect the level of safety of the vehicle or component concerned.

8 Acceptance of existing approvals

8.1 Interim provision

In accordance with Article 83 of the Railways Ordinance, vehicles or components that were put into operation in Switzerland prior to 1 January 1999 are regarded as duly approved.

¹² EN 50126 Railway applications – The specification and demonstration of Reliability, Availability, Maintainability and Safety (RAMS)

¹³ Implementation provisions of the Railways Ordinance (SR 742.141.11)

8.2 Consent on the part of Swiss Federal Railways (SBB)

In accordance with Article 83a of the Railways Ordinance, vehicles or components that were put into operation during the interim period from 1 January 1999 to 31 December 1999 with the consent of SBB on the basis of formerly applicable legal provisions, are regarded as duly approved.

8.3 Recognition of approval documents from other countries

Within the scope of an ongoing approval procedure, the FOT may recognise approvals issued by other countries¹⁴. In any case the FOT verifies that the application conditions stated in the existing foreign approval correspond to those cited in the ongoing procedure.

8.4 Foreign approvals of vehicles bearing RIV/RIC signs

In accordance with Article 7 of the Ordinance on Access to the Railway Network¹⁵, vehicles that have been officially approved in other countries and bear the RIV/RIC sign also count as approved in Switzerland. However, within the scope of its supervisory activities, the FOT may impose certain restrictions or conditions. The associated maintenance tasks must be able to ensure the safe operation of the vehicles concerned.

8.5 Standardised ISO containers

Standardised ISO containers are subject to the provisions of the Container Safety Convention (1985), and count as approved in Switzerland.

9 Reporting obligation

Any findings and/or occurrences of relevance to safety that may be associated with homologised vehicles or components have to be immediately reported to the FOT. This reporting obligation applies throughout the entire life cycle of the vehicle or component(s) concerned and their series application (development, trials, manufacture, storage, transport, operation, maintenance, disposal).

10 Revocation of approval

The FOT is authorised to revoke a approval in the following cases:

- If the technical and/or operational safety can no longer be guaranteed
- If the present application conditions do not correspond to those specified in the approval

¹⁴ Obligation of acceptance in accordance with corresponding international agreements

¹⁵ SR 742.122

11 Confidentiality

Those employees of the FOT who handle documents submitted by an applicant in association with the approval procedure are obliged to observe professional, business and official secrecy in accordance with the provisions of the Federal Employees Act¹⁶. The FOT is not permitted to pass on any documents or the contents thereof to any third parties without the prior consent of the applicant.

12 Fees

Fees are charged in accordance with the provisions of the corresponding FOT's ordinance¹⁷.

13 Effective date

These guidelines are effective as of 1 April 2002.

FEDERAL OFFICE OF TRANSPORT

Max Friedli, Director

¹⁶ SR 172.220.1

¹⁷ SR 742.102

Applicable vehicles and components

Rolling stock include (list not complete):

- Locomotives
- Motor coaches
- Multiple Unit Trainsets (EMU and DMU)
- Passenger cars
- Freight cars¹⁸
- Tramway vehicles and light rail vehicles (LRV)
- Maintenance vehicles
- Maintenance Cars
- Two-way vehicles (Hi-Railer)

Components include (list not complete):

- Running gears
- Wheelsets
- Coupling devices
- Brake equipment
- Train protection equipment
- Radio equipment
- Pantographs
- Swap bodies¹⁸
- Radio remote control units
- Tilting equipment
- Microprocessor control & communication systems

¹⁸ Questions pertaining to the transport of dangerous goods should be addressed to the Federal Office of Transport, Operating Regulations section, CH 3003 Berne (phone no. 031 323 21 54)

Specific information to be included in applications

- Technical specifications
- Vehicle data sheet (cf. Annex 2, page 2)
- Drawing of vehicle
- Performance data
- Vehicle body
- Coupling equipment
- Running gear with wheelsets, suspension and body connection
- Power supply
- Propulsion equipment
- Auxiliary equipment
- Brake equipment
- Brake weight
- Control & communication units
- Safety equipment
- External doors
- Driver's cab and operation
- Passenger compartment
- Service compartments
- Loading compartments and zones
- Pressure reservoirs
- Failure mode effective analysis and emergency concepts
- Other information

Vehicle data sheet

- General features
- Speeds
- Power ratings
- Weights
- Dimensions
- Track performance
- Type of brake equipment
- Brake weight
- Type of compressed air system
- Type of power supply
- Type of drive assembly
- Type of running gear and suspension
- Type of coupling systems
- List of safety and communication systems
- Capacity of passenger compartment
- Capacity of loading compartments and zones
- Special information