



IBSF Track Rules

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1. Scope

The IBSF Track Rules apply to all Bobsleigh and/or Skeleton tracks that hold IBSF events (competitions or training). These rules must be observed at all times and apply to new tracks and existing tracks.

Tracks shall be constructed and maintained in such a way that they are suitable for the practice of bobsleigh and skeleton racing with no limitations.

For the purpose of designing, constructing and using the tracks, the greatest attention shall be paid to the environment and its protection.

The directives, which track constructors must observe, shall be designed in such a way as to keep the costs of the tracks as low as possible and to guarantee satisfactory use of the installations at all times.

2. Environmental Protection

The 'IBSF Environmental Guidelines' are an integral part of these rules and of maintaining the sustainability of bobsleigh and skeleton. They must be considered in the preparatory phase, in the design, in the construction, and during the operation of the track.

3. IBSF Track Committee

The IBSF Track Committee shall supervise the preparatory phase of the design, the design itself, the construction and the commissioning of each track.

The IBSF Track Committee is at the disposal of bob and skeleton track constructors and managers to provide consultancy free of charge.

The IBSF Track Committee will work closely with any relevant FIL Technical Committee when and where appropriate.

4. Preparatory Phase of Design

The IBSF Track Committee shall be called upon to effect inspections and to provide consultancy before a decision is made regarding the terrain on which the track will be constructed.

The Committee shall present a written report on the terrains, specifying the documents to be submitted to them for further consideration.

5. Design in General

The IBSF Track Committee shall be periodically called upon during the track design phase.

The Committee shall approve the chosen terrain and the basic project.

The same rule applies in case of changes regarding the choice of the terrain and the basic project.

6. Location of the Track

If possible, the track shall be located on the north side of the slope and be easily accessible via normal channels of communication. Its trajectory shall - as far as possible - follow the natural development of the terrain.

In order to guarantee optimal use of the track (after the Olympic Winter Games), it is of the utmost importance that the track be located close to a city or to a densely populated area.

7. Length of the Track

New artificial combined bob, luge and skeleton tracks shall be 1200 - 1650 meters long, 1200 meters of which shall be sloping downhill. The last approx. 100 – 150 meters may consist, depending on speed, of an uphill stretch that shall have bends.

The maximum gradient of this stretch must not exceed 12%.

Speed at the finish shall be higher than 80 km/h.

After time keeping at the finish, the stopping stretch shall be straight and not have any further bends.

8. Track Characteristics

The track shall include elements of varying technical difficulty.

Particularly demanding elements in terms of driving technique shall be located in the first stretch, which accounts for two thirds of the track.

At design level, it is to be foreseen to be able to reach a speed of between 80 and 100 km/h after the first 250 meters.

Bends, combinations of bends and straight stretches of a suitable length shall be inserted into the track.

9. Starting Area: Bobsleigh and Skeleton

9.1 Push-Off Stretch

The push-off stretch means the part of the track between the start block (wooden board) and the first photoelectric cell.

This stretch shall be 15 meters long and have a gradient of 2%.

The rearmost part of this stretch must consist of a block (wooden board) fixed to the ground, which must not be removed, nor passed.

9.2 Start Block (Wooden Board)

The start block must be at least 150 cm long, 20 cm wide and 5 cm high from the surface of the ice.

9.3 Starting Area

After the first photoelectric cell (start-line), the track must follow a straight path so that bobsleds starting off may reach a speed of 35 km/h. The track must be sufficiently wide in order not to obstruct teams. The gradient of a 60 m stretch must be equal to 12%. The stretch between the first photoelectric station must be 50 m long (starting time).

9.4 Preparation

Behind the start block (wooden board), there must be a preparation area with a frozen base, of such a size that it can accommodate two bobsleds on the ice without obstructing the team about to start off.

9.5 Start Procedure Time Limit

If the start does not take place within 60 seconds (bobsleigh) or 30 seconds (skeleton), the light must be switched to red. When the light is switched to red, an acoustic signal must be sounded.

10. Bends

The bends must be constructed in such a way as to allow sleds to move not only along a single trajectory, but to provide a band of possible trajectories from which to choose.

In the central part of the bend, the trajectory should extend along the upper half of the bend.

Entries and exits from bends must be rounded so that the sleds can take them smoothly with no risk of capsizing, if no mistake is made in driving.

11. Guardrails in Bends

Guardrails in bends (bumpers) must be constructed in such a way that they return the sleds on to the track.

They must be sufficiently long and wide, and also of a material or construction that is sturdy enough to not be penetrated by the impact of a sled.

12. Centrifugal Force

Centrifugal force may not exceed '5G' for 2 seconds continuously.

13. Straights

In the iced construction, maximum width is 140 cm. The external part of the sidewalls of the straight stretches should not be higher than 80 - 100 cm, including any raised section.

In the iced state, the inside part of the sidewalls must be at least 50 cm high.

The sidewall of straight stretches must be at a right angle to the track base.

The transition between the sidewall and the base of the track must be provided with a channel.

In the iced state its radius must be 10 cm.

In transitions linking a bend to a straight, the raised part of the bend must run into the sidewall of the straight gradually in a sufficiently long section.

14. Deceleration Stretch

The deceleration stretch must be constructed in such a way that the bobsled, the skeleton and the luge can stop even without applying the brakes. The gradient of the deceleration stretch must not be in excess of 20%.

At the end of the iced stretch, sleds must be able to continue without any obstacle. If considered necessary, at speeds less than 30 km/h, special cushioning devices may be installed, in order to avoid any injury to people and to restrict damage to sleds to a minimum.

For skeleton, sufficient foam rubber mats have to be made available. If possible water-repellent (approx. 100 x 150 cm, maximal thickness 6 cm).

15. Lighting

In the event lighting should be required for training and competitions, the following conditions must be complied with:

- a) Uniform lighting intensity, without shadows and reflection.
- b) The lighting system must be powered by two independent systems, one of which must also be independent of the main power supply.
- c) If one of the two circuits breaks down, 50% of the planned lighting capacity must be nevertheless guaranteed.

16. Solar and Weather Protection Devices

The stretches of the track exposed to the sun and/or to adverse weather conditions must be protected by means of proper devices.

On bends, protection may be provided by fixed roofs combined with the coverings of the bends. On straight stretches, a removable type of covering, open on one side of the track, must be adopted. It is forbidden to install roofs with fixed coverings on straight stretches. Any pillars (of any type and purpose) and fixture systems shall be at a distance of 50 cm from the inside of the track wall.

Coverings shall not interfere significantly with television filming or the view of spectators. They should possibly be of the removable type.

Local climate conditions must be duly considered.

17. Water Supply

A plumbing system must be installed along the track, protected from freezing and provided with a sufficient number of properly protected hydrants.

Access to the hydrants from the track must be guaranteed.

18. Catwalks

Catwalks must be installed along the track, along which members of the Jury, the Technical Delegate and trainers may stand. Access by spectators to these catwalks must be prevented.

The position of these catwalks is established by the Track Committee on approval of the project.

19. Infrastructures - Ancillary Facilities

The spaces for the warming up section, shelters to store bobsleds, the building at the starting zone and for weighing, must be sufficiently large.

In particular sufficiently large areas for warming up of athletes shall be foreseen in the open air. A medical first-aid room, an anti-doping room, a room for controlling material and a press centre shall be foreseen.

Ancillary facilities may also be of a temporary type.

Their construction is established jointly by the author of the project and the **Track Committee, or other IBSF officials**.

20. Buildings at the Start and Finish

One building must be constructed near the starting zone for bobsleigh and skeleton. There is one building at the finish for all specialties.

21. Partitioning of Costs

The budget and the costs for building a combined bob and **skeleton** track are to be presented as follows:

- a) Costs of the track and infrastructures resulting from the compliance with these rules and with the directives of the IBSF
- b) Remaining costs, e.g. longer track, improved infrastructures, approach roads, developments, etc.

The exact partitioning is determined between the constructor and **the IBSF Track Committee or other approved IBSF officials**.

22. Exceptions

Exceptions may be made **to these rules** in certain cases. The **IBSF Executive Committee or its authorised representative/s** must authorize these exceptions in writing.

However, these decisions shall not affect safety, nor imply any significant reduction in sporting value and shall not interfere with television filming.

23. Homologation

A track must be homologated by the IBSF in order to host an IBSF event.

The IBSF **at no time** assumes responsibility for the accuracy of calculations or for the execution of works for constructing or restructuring the track. (This responsibility shall be assumed by the architect/engineer who designed the track and by the construction company).