Guidelines for Roller Ski Equipment Specification and Control

General Conditions

- In order to provide safe and fair conditions for athletes taking part in FIS Roller Ski competitions OC may limit certain parameters for Roller Ski equipment (hereinafter referred to “Official equipment”).
- Athletes safety should always put as priority for equipment restrictions.
- If OC decides to limit certain Roller Ski equipment specifications in given competition it must communicate with TD before publishing official invitation.
- Official equipment (model) must be tested at training and competition conditions (specific to the certain course conditions) at least 2 competition seasons and has been proven to be safe and reliable.
- Official equipment (given model, specification) must be commercially available at market for purchase for everyone.
- All Official equipment provided by OC must have standardized quality and marking and Jury must be able to check it in field conditions.

Official equipment

- OC may provide full set of Roller Skis (with bindings) or only certain parts of Roller Ski equipment, for instance: Roller Ski wheels (including bearings, axels, and spacers) as Official equipment.
- In a case when full set of rollerskis are provided, OC must collect information about type of bindings used by entered athletes together with team entries.

Officially Supplied Roller Skis

- Official equipment must comply with chapter 396.2 "Competition Equipment" of the ICR.
- Official equipment supplier chosen by OC must be able to provide 1 type of Roller Skis with standardized quality of frame, wheels, bearings and lubrication. Wheels should be manufactured in the same batch.
- Wheels provided by official equipment supplier preferable be new and unused before 1th official training in given competition.
- It is recommended to use wheels with hardness in range 65-80 A shores measured by Type A durometer. When choosing wheel hardness, it must be chosen according to given competition format, course profile and potential possibly the rainy weather conditions (wet asphalt).
- Allowed variation of wheel hardness range may differ +/- 3 shores from average value (measured by Type A durometer) from at least 5 pairs samples in given equipment control situation.
- It is recommended to use wheel bearings type: 608
  For classic Roller Skis it is recommended to use 2-wheel frame.

Roller Ski Equipment testing and distribution

- Athletes must have possibility to test official Roller Ski Equipment during official training before competition.
- Roller Skis should be issued to athletes at the earliest 30 min and not later than 20 min before the start. Roller Skis must be marked and drawn before each competition. Draw must be performed by competition OC official under the supervision of a Jury member.

Control of Roller Ski Equipment

- During competition OC in cooperation with official supplier must provide spare Roller Skis in specially predefined Service points along the course. OC should provide at least 1 service point every 5km of covered course.
- OC must provide moving service vehicle (motorcycle, light vehicle) with official Roller Skis in competitions where course is longer than 10km.
- OC together with Jury must perform random check of officially supplied equipment before first distribution of equipment to athletes/teams. A quick random check may also be done before each competition. Any type of Official equipment control must be performed in predefined and equal conditions for all samples.
- The control must include measurements of:
  1) Wheel size (mm)
  2) Wheel hardness (allowed measurement variation +/- 3 A shores from predefined value declared by Official supplier);
  3) Type and model of bearings;
  4) Standardized rolling (ski) test with not less than randomly chosen 5 pairs. Roller Ski rolling test can be done on Roller Ski course or wheel rolling/resistance can be done on special test bench
  5) Measurements of rolling speed (recorded time: ss,00) or rolling distance (mm,00) in given test area cannot exceed variation +/- 3%
  6) The presence of the ratchet mechanism for the classic roller skis.

- Roller Ski test control results (average of 5 “Time” or “Distance”) must be used as priority criteria for equipment control compare to other control parameters.
- Official equipment controls must be documented. See example of test protocol in Appendix: ROLLER SKI EQUIPMENT CONTROL PROTOCOL.
- If controlled and tested equipment do not comply with measured criteria official supplier must provide given equipment change.

Obligations and Responsibilities for Teams and Athletes

- Competition entries must be sent with notice for each athlete what kind of ski bindings athlete will use.
- Athletes and/or team officials have no right to make any technical changes in Officially provided equipment (including Roller Ski wheels, bearings, wheel axle, spacers and other). Additional lubrication or flushing of the bearings is not permitted.
- Athletes must return Official equipment for control to official control judge right after the finish of their competition (or final round in Sprint finals). If competition Jury has evidence that given Roller Skis has been technically impacted without notice Jury can take actions according FIS ICR 223-224.
- During official training and before/during competition athlete has a right to declare any technical defect found in officially provided Roller Skis and ask for repairing or Roller Ski change in due time. In case of major mechanical failure of an officially provided equipment and competitor had changed the malfunctioned equipment with non-official one because there was no official replacement available, the Jury will consider the case and make a decision whether to impose a sanction on that competitor. All relevant evidence and circumstances must be considered when making a decision and decision itself is at sole discretion of the competition jury.

ROLLER SKI EQUIPMENT CONTROL PROTOCOL:

Date/time: _____

Roller Ski brand/model: _____

Type of Rollerkis (classic/skating): _____

Wheel diameter (mm):_____ Wheel width (mm):____ Model of bearings: _____

Rolling (ski) test distance length (m): _____ average drop (% or m): _____

Roller Ski marking nr.	Front wheel hardness (A shores)		Back wheel hardness (A shores)		Average wheel hardness (f1+f2+b1+b2)/4	Rolling test time (ss,00)					Average rolling test time (ss,00)*
	F1	F2	B1	B2		1.trial	2.trial	3.trial	4.trial	5.trial	

* From 5 trial`s best and worst trial time (or distance) are discarded. The remaining 3 trials are summed and divided by 3.

Name and signature of Control person: _____ Name and signature of Jury member:_____