

The Danish Gambling Authority's Certification Programme



Testing Standards for Online Betting –
SCP.01.01.EN.2.1

Contents

1.	Objectives of the testing standards.....	2
1.1	Scope of this document.....	3
1.2	Version.....	3
1.3	Applicability.....	4
2.	Frequency and testing organisations.....	5
2.1	Certification frequency.....	6
2.1.1	Initial certification.....	6
2.1.2	Renewed test.....	6
2.1.3	Postponement of renewed test.....	6
2.2	Accredited testing organisations.....	6
2.2.1	Requirements for accredited testing organisations.....	6
2.2.2	Requirements for personnel who performs testing.....	7
2.2.3	Requirements for personnel who supervise testing and attest the certification report.....	7
3.	Requirements for the testing of gambling functionality.....	8
3.1	RNG Requirements.....	9
3.1.1	Random Number Generator suitability for functionality other than generating results.....	9
3.1.2	Error control procedures.....	9
3.1.3	Seeding.....	9
3.1.4	Security.....	9
3.2	Game execution.....	9
3.2.1	General.....	9
3.2.2	Games without stakes.....	10

Objectives of the testing standards

1

The testing standards for online betting are set out to ensure that the gambling functionality of the gambling system operates in a suitable manner. The presentation of gambling functionality towards the customer can be distorted if the functionality does not operate in a manner that is true to what the customer can rightly expect. Therefore, the gambling system's gambling functionality shall be tested to ensure that it operates in a manner consistent with what is being presented to the customer.

1.1 Scope of this document

Requirements on how testing organisations obtain accreditation for testing the gambling system, business processes and business systems of the licence holder have been specified as well as requirements on how often testing shall be done. These requirements are described in section 2 "Frequency and testing organisations".

The random number generator(s) in the gambling system of the licence holder shall be tested to ensure that they are truly random and that the games are running independently from the device of the customer. Furthermore, it shall be tested that games without stake does not distort the customer's impression of the chance to win is also required. These tests are described in section 3 "Requirements for the testing of gambling functionality".

1.2 Version

The Danish Gambling Authority continuously revises the certification programme. The latest version and the version history are accessible at The Danish Gambling Authority's website.

Version 1.0 of 2014.07.01

- A new document structure than the previous version 1.3 alongside with a range of updates in different areas. A new version 1.0 is therefore published. It is the intention to follow normal versioning for future changes.

Version 1.1 of 2015.12.21

- Changes completed to implement requirements for betting on horse and dog races in the certification programme.

Version 1.2 of 2018.01.01

- Changes completed because of liberalization of online bingo, betting on horse- and dog races and betting on pigeon races.

Version 1.3 of 2020.01.01

- Spillemyndigheden has removed the requirement saying the ATO's accreditation must refer to a specific version cf. section 2.2.

Version 2.0 of 2023.01.01

- Update of requirements for accredited testing organisations and staff. RNG requirements regarding result generating and RNG requirements regarding other functionality have been merged in one section. Furthermore, general adjustments and specifications have been made.

Version 2.1 of 2023.10.01

- Updated visual layout of the document. Minor linguistic corrections. No changes to requirements.

When a new version of the certification programme is released, the Danish Gambling Authority will, if necessary, publish guidelines for a transition period and validity of already completed tests.

It must be emphasised that only the Danish version is legally binding. The English version holds the status of guidance only.

1.3 Applicability

Testing Standards for Online Betting are applicable for provision of online betting (§ 11 in the Danish Gambling act).

Frequency and testing organisations

2

2.1 Certification frequency

The licence holder is responsible to ensure to be certified in accordance with the requirements in this document with an interval of maximum of 12 months.

2.1.1 Initial certification

The licence holder must, as a rule, be certified before a licence to offer games can be issued, unless The Danish Gambling Authority has informed otherwise. See section 2.1.3 in the general requirements for further information.

2.1.2 Renewed test

The licence holder must, as a rule, have completed a new test within 12 months of the latest test. The standard report must reflect when the test has been renewed.

The standard report, which documents the renewed test, must be in the Danish Gambling Authority's possession no later than two months after the test was done.

A renewal of the test may be based on sampling, spot checks and compliance with the requirements set out in the document "SCP06.00.DK - Change Management Programme".

2.1.3 Postponement of renewed test

The licence holder can choose to postpone the test up to two months from the time where a new test should have been completed. The new test must be finalised no later than 14 months after the latest test and the standard report must be submitted to The Danish Gambling Authority within the same deadline.

The Danish Gambling Authority must be notified before the test is postponed.

The deadline for renewal of test is shortened with the equally amount of time the former 12-month deadline has been postponed. Meaning that if you for instance make use of the maximum two months postponement, then the next test is due 10 months later. The time for the next test shall be reflected in the standard report.

The option to postpone the test only applies to the licence holder. This means that the option does not apply to any suppliers the licence holder may have.

2.2 Accredited testing organisations

To ensure that the necessary qualifications are in place during the certification, the testing organisation and their staff shall fulfil the requirements in this section.

2.2.1 Requirements for accredited testing organisations

Testing of online betting shall be conducted as accredited testing by a lab, who is accredited after ISO/IEC 17025 or ISO/IEC 17065 referring to Spillemyndighedens Certification Programme SCP.01.01.DK. Accreditation shall be done by DANAK (the Danish Accreditation Fund) or a similar accreditation body, who is co-signer of EA's (European co-operation for Accreditation) multilateral agreement on reciprocal recognition regarding testing, or for labs

outside EA's jurisdiction, by an accreditation body, who is co-signer of ILAC's (the International Laboratory Accreditation Cooperation) multilateral agreement on reciprocal recognition regarding testing.

Documentation for the accreditation shall be enclosed with the certification. Alternatively, a link to the accreditation can be provided in the certification report.

2.2.2 Requirements for personnel who performs testing

The certification work shall be carried out by staff with sufficient qualifications cf. section 6 in ISO/IEC 17025 or ISO/IEC 17065, which means that the accredited testing organisation shall hire sufficiently qualified, competent, and experienced personnel.

2.2.3 Requirements for personnel who supervise testing and attest the certification report

Testing shall be supervised, and the certification report shall be attested by one or more persons who warrant(s) that the work has been carried out to professional standards. These persons shall meet the following requirements:

- a. For testing of the Random Number Generator, the supervisor shall have a relevant master's or PhD degree or in other ways be able to prove relevant qualifications and have at least five years of professional experience in testing gambling systems.
- b. For testing of other gambling functions, the supervisor shall have a relevant educational background or in other ways be able to prove relevant qualifications and have five years of professional experience in testing gambling systems.

See section 2.2 of the General Requirements for further information.

Requirements for the testing of gambling functionality

3

3.1 RNG Requirements

3.1.1 Random Number Generator suitability for functionality other than generating results

1	<p>Functionality with an element of chance but not used for generating results shall be based on a certified Random Number Generator (RNG) and related functionality (seeding, mapping, shuffling, etc.).</p> <p>Guidance: E.g. This could be situations where a player buys a bet, where the gambling system chooses which bets are played on and / or the outcome of the individual bets. Which means situations where the game system randomly selects bets for the player.</p>
2	The RNG shall be generally recognised as being a cryptographically strong source for drawing random numbers.
3	<p>The RNG output shall pass one of the following statistical tests:</p> <ul style="list-style-type: none"> • The DIEHARDER test suite • The NIST (National Institute of Standards and Technology) Statistical Test Suite, or • A similar test suite of the same level. <p>The tests shall be conducted on a data set, which the accredited testing organisation considers to be sufficient for securing statistical valid results.</p>
4	If the RNG is dependent on seeding, when using the RNG, no more numbers may be drawn on the same seeding than the number of numbers drawn on the same seeding during the statistical tests described under requirement 3.1.1.3.

3.1.2 Error control procedures

1	<p>In case of errors on the RNG output, including missing output, the RNG must be deactivated.</p> <p>Instructions: It is possible to switch to a backup RNG, provided that it complies with the requirements set for the RNG in this document.</p>
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3.1.3 Seeding

1	<p>The gambling system shall secure the RNG output by applying an appropriate and efficient method for seeding and re-seeding.</p> <p>Guidance: This requirement applies to technological aspects of the reseeding method, not process components.</p>
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3.1.4 Security

1	<p>RNG output must be secured until used.</p> <p>Guidance: RNG output must not be transmitted unencrypted between RNG server and game server.</p>
2	<p>RNG output which is mapped and scaled for a symbol or an event shall be applied immediately and in accordance with the game rules.</p> <p>Guidance: This does not prevent games which temporarily change character while ongoing from being played in accordance with the game rules of these games.</p>

3.2 Game execution

3.2.1 General

1	<p>Games shall be independent of the characteristics of the customer's equipment and/or communication channel.</p> <p>Guidance: The game logic must be run in the game system and not on the player's equipment, which i.a. means that the gaming system may not use information about the customer or customers' equipment.</p>
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3.2.2 Games without stakes

1	Games without stakes (free games, games for fun, trial games etc.) shall present the chance of winning in a correct and balanced way. These games must not give the impression that the chance of winning is bigger than it actually is in games with stakes.
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