Spillemyndigheden's Certification Programme

Testing Standards for Online Betting

SCP.01.01.EN.1.3

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1 Objectives of the testing standards

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

This document contains the requirements specifying how testing organisations obtain accreditation for conducting certification of the gambling system, business processes and business systems of the licence holder as well as instructions on how to conduct the certification. The requirements concerning accreditation of the testing organisation and certification of the licence holder can be found in section 2 "certification".

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, testing to ensure that the offer of games without stakes on the same platform as games with stakes 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

Spillemyndigheden will continuously revise the certification programme and the latest version will at all times be accessible at Spillemyndigheden's website.

Date	Version	Description
2014.07.01	1.0	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.
2015.12.21	1.1	Changes completed to implement requirements for betting on horse and dog races in the certification programme.
2018.01.01	1.2	Changes completed because of liberalization of online bingo, betting on horse- and dog races and betting on pigeon races.
2020.01.01	1.3	Spillemyndigheden has removed the requirement saying the ATO's accreditation must refer to a specific version cf. section 2.2.

Spillemyndigheden will publish guidelines regarding the validation of existing certifications together with previously performed inspections and tests, when new versions of the certification programme is released.

It is important to emphasise that only the Danish version is legally binding and that the English version holds the status of guidance only.

1.3 Applicability

Testing Standards for Online Betting are applicable for offering of:

- Online betting (§ 11 in the Danish Gambling act)

Testing Standards for Online Betting are not applicable for offering of:

- Local pool betting (§ 13 in the Danish Gambling act)

2 Certification

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 Spillemyndigheden has informed otherwise.

2.1.2 Renewed certification

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

The licence holder can choose to postpone the certification up to two months from the time where a new certification should have been completed. The new certification must be finalised no later than 14 months after the latest certification and the standard report must be submitted to Spillemyndigheden within the same deadline. Use of this postponement requires that the testing is commenced within 12 months of the latest certification.

Spillemyndigheden must be notified before the certification is postponed.

The deadline for renewal of certification 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 certification is due 10 months later. The time for the next certification shall be reflected in the standard report.

A renewal of the certification may be based on sampling, spot checks and compliance with the requirements set out in the document "SCP06.00.EN - Change Management Programme". The certification shall clearly state whether this method has been used.

2.2 Accredited testing organisations

Testing organisations shall attain ISO/IEC 17020 accreditation and/or ISO/IEC 17025 accreditation based on the criteria described in the following sections. 'Spillemyndigheden's certification programme – SCP.01.01.DK' must appear from the accreditation scope.

The accreditation will be undertaken by DANAK, the Danish Accreditation Fund, or a similar accreditation body being covered by the multilateral agreement on reciprocal recognition of the European Co-operation for Accreditation or a member of the International Laboratory Accreditation Cooperation.

To ensure that the necessary qualifications are in place during the certification the testing organisation and their staff shall fulfil the following requirements. Documentation that the requirements are fulfilled shall be enclosed with the standard report.

2.2.1 Requirements for accredited testing organisations
The accrediting testing organisation:

a) Shall have at least three years' experience in testing gambling systems or a similar closely related subject area,

b) Shall work on the basis of the ISO/IEC 17020 accreditation and/or ISO/IEC 17025 accreditation, which refers to the requirements of SCP.01.01.DK, and

c) Shall ensure that staff with sufficient qualifications will carry through the certification.

2.2.2 Requirements for personnel at the accredited testing organisations
The certification shall be carried out by staff with sufficient qualifications cf. sections 2.2.1 above. Work done in relation to the certification shall be supervised and the declaration of certification shall be attested by one or more persons who warrant(s) that the work has been carried out to adequate professional standards. These persons shall meet the following requirements:

a) For the 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,

b) For the testing of other gambling functions the supervisor shall have a relevant educational background or in other ways be able to prove relevant qualifications, and

c) The supervisor referred to in a) or b) above shall have five years of professional experience in testing gambling systems or a similar closely related subject.

Guidance: Testing, supervision and attestation can be carried out by staff who in conjunction fulfil the requirements.

3 Requirements for the testing of gambling functionality

3.1 RNG Requirements

3.1.1 Random Number Generator suitability for functionality other than generating results

1	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.). Guidance: E.g. this could be placement at the poker table in a poker tournament.
2	The RNG shall be generally recognised as being a cryptographically strong source for drawing random numbers.
3	The RNG output shall pass the following statistical tests: • The DIEHARD test suite (Marsaglia), • The NIST (National Institute of Standards and Technology) Statistical Test Suite or

	• A similar test suite of the same level. The tests shall be conducted on a data set, which the accredited testing organisation considers to be sufficient for securing statistical valid results.
4	The RNG output shall be statistically independent.
5	The RNG output shall have a correct statistical standard deviation.
6	The RNG output shall be unpredictable without knowledge of its algorithm, implementation and the current value of the seed.
7	The RNG shall pass all tests during maximum load. Guidance: Maximum load is defined by the licence holder as the load level where the gambling system automatically rejects customer input

3.1.2 Error control procedures

1	If hardware RNG is being used, the gambling system shall use a fail-safe mechanism to deactivate the game in the event of errors in the unit. Guidance: It is possible to use software RNG as backup to hardware RNG, provided that the software RNG also fulfils the requirements for RNG mentioned in this document.
2	If software RNG is used, the gambling system shall apply dynamic monitoring of output and deactivate games in the event of RNG output failure.

3.1.3 Seeding

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

3.1.4 Security

1	RNG output which is mapped and scaled for a symbol or an event shall be applied immediately and in accordance with the game rules. Guidance: This does not prevent games which temporarily change character while ongoing from being played in accordance with the game rules of these games.

3.2 Game execution

3.2.1 General

1	Games shall be independent of the characteristics of the customer's equipment and/or communication channel.

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 so as not to create an impression that the chance of winning is bigger than it actually is in games with stakes.