The Danish Gambling Authority's Certification Programme for betting and online casino

Requirements for RNG – SCP.01.00.EN.1.0

Contents

Objectives of requirements for RNG

1

The requirements for RNG shall ensure that random functions are actually random, there are established procedures in case of errors with the RNG and, necessary security measures are made.

This document only contains testing requirements. From each requirement it is shown if the requirement is to be tested. These requirements are marked with: **[TEST].** See also section 2.2.1 Requirements for testing organisations.

1.1 Version

Version 1.0 of 2025.01.01
- First version of the document Requirements for RNG, which is based on the previous testing standards. Contrary to the testing standards this document exclusively contains requirements for RNG. Several sections have been updated in relation to game suppliers and games register. The section on supervision and attesting has been updated.

The Danish Gambling Authority continuously revises the certification programme for betting and online casino. The latest version is accessible at The Danish Gambling Authority's website.

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.

1.2 Applicability

This document is applicable for the supply of RNG (§ 24a in the Danish Gambling Act) to licence holders. The document is also applicable for licence holders with their own RNG used for offering their own betting products or casino games.

Frequency and testing organisations

2

2.1   Certification frequency

Game supplier and licence holder´, with their own RNG, are responsible for being certified in accordance with the requirements in this document with an interval of maximum of 12 months.

2.1.1   First test of RNG and upload of certificate

Game suppliers and licence holders, with their own RNG, must be certified the first time before a RNG can be used for the Danish market.

The standard report for SCP.01.00 is used as documentation for the first certification. The standard report constitutes an RNG-certificate.

Information about the RNG and certificate must be uploaded to the Danish Gambling Authority's games register before an RNG can be used for the Danish market. Se guidance on upload at the Danish Gambling Authority's website.

2.1.2   Renewed test of RNG and upload of certificate

Game supplier or licence holder, with their own RNG must, as a rule, have completed a new test within 12 months from the latest test. The standard report must reflect when the new test has been completed.

The standard report for SCP.01.00 is used as documentation for renewed certification. The standard report constitutes an RNG-certificate.

The RNG-certificate, must be uploaded to the Danish Gambling Authority's games register, and thereby be in the Danish Gambling Authority's possession, no later than 1 month after the test is completed. Se guidance on upload at the Danish Gambling Authority's website.

If it can be documented that there have been no changes to the RNG since the previous test, the testing organisation can attest the standard report without any further test being necessary. The documentation for no changes can for instance be comparison of hash-values generated by the testing organisation or by use of validation software.

If changes have been made to the RNG since the previous test, a renewed test of SCP.01 can be based on spot checks and compliance with the requirements set out in the document "SCP06 - Change Management Programme".

2.1.3   Postponement of renewed certification

Game supplier or licence holder, with their own RNG, can postpone the certification up to 1 month from the time where a new test should have been completed. The new test must be finalised no later than 13 months after the latest test and the standard report must be submitted to The Danish Gambling Authority within 13 months from the latest test.

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

The deadline for renewal of the certification is shortened with the equally amount of time the former 12-month deadline has been postponed. If you for instance make use of the maximum 1-month postponement, then the next test is due 11 months later. The time for the next test shall be reflected in the standard report.

2.2   Accredited testing organisations

To ensure that the necessary qualifications are in place, when the test is completed, the testing organisation and their staff shall fulfil the requirements in this section.

2.2.1   Requirements for testing organisations

Test of RNG shall be conducted as accredited testing by a lab, who is accredited after ISO/IEC 17025 or ISO/IEC 17065 referring to The Danish Gambling Authority's Certification Programme for betting and online casino SCP.01.00.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 the test

The test 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 and educate sufficiently qualified, competent, and experienced personnel.

2.2.3   Supervision and attest of the standard report

Testing shall be supervised cf. the requirements for supervision in section 2.3 in the general requirements. It is the supervisers responsibility to sign the standard report, and thereby warrant that testing has been completed in an appropriate professional manner.

Random Number Generator (RNG)

3

3.1   RNG Requirements

3.1.1   Random Number Generator suitability for generating results and other functionalities with elements of randomness.

1	[TEST] The RNG shall be generally recognised as being a cryptographically strong source for drawing random numbers.
2	[TEST] The RNG output shall pass one of the following statistical tests: • The DIEHARDER test suite • 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.

3.1.2   Error control procedures

1	[TEST] In case of errors on the RNG output, including missing output, the RNG must be deactivated. Guidance: It is possible to switch to a backup RNG, provided that it complies with the requirements set for the RNG in this document.

3.1.3   Seeding

1	[TEST] The gambling system shall secure the RNG output by applying an appropriate and efficient method for seeding and re-seeding.