LIFS 2018:8

The Swedish Gambling Authority's regulations and general advice on technical requirements and accreditation of bodies for inspection, testing and certification of gambling service providers;

adopted on 25 July 2018.

The Swedish Gambling Authority prescribes[1] the following pursuant to Chapter 16, Section 9, and Section 10 point 7 of the Gambling Ordinance (2018:1475) and hereby adopts the following general advice.

Chapter 1 Scope

Section 1 These regulations and general advice apply to applicants for accreditation to inspect, test and certify gambling service providers, applicants for a licence to conduct gambling services and license holders in accordance with Gambling Act (2018:1138).

The Swedish Gambling Authority can grant exemptions from the regulations, if doing so is motivated from a safety perspective and does not otherwise entail any risk to the player.

The regulations and general advice do not apply to

1.   land-based casinos in specific premises in accordance with Chapter 5, Section 1 of the Gambling Act,

2.   token gambling machines in accordance with Chapter 5, Sections 7–8 of the Gambling Act,

3.   local pool game in accordance with Chapter 6, Section 8 of the Gambling Act,

4.   games covered by municipal registration in accordance with Chapter 6, Section 9 of the Gambling Act,

5.   land-based casino games, goods gambling machines and card tournaments in accordance with Chapter 9, Section 1 of the Gambling Act,

6.   games on-board vessels in international traffic in accordance with Chapter 10, Section 1 of the Gambling Act,

Lotteries in accordance with Chapter 6, Section 1 of the Gambling Act with a turnover of less than SEK five (5) million are only subject to Chapter 13.

Expressions used in the regulations and general advice

Section 2 Unless otherwise stated, the terminology used in the regulations has the same meaning as in the Gambling Act (2018:1138) and the Gambling Ordinance (2018:1475).

In these regulations and general advice, the following definitions are used

1.   *checksum:* figures appended to numbers or messages to allow discovery of changes and faults. Checksums are calculated using a specific mathematical procedure;

2.   *information asset:* information, and any resources handling that information, which is of value to an organisation. A gambling and ERP[2] system consists of one or more information assets that the licence holder defines in a list;

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[1] See Directive (EU) 2015/1535 of the European Parliament and of the Council of 9 September 2015 laying down a procedure for the provision of information in the field of technical regulations and of rules on Information Society services (codification)

[2] Enterprise Resource Planning

3.   *encryption:* encoding of data and information using an
encryption algorithm that is generally known and published;

4.   *live casino game:* casino game offered online via
video link, data-transferred communication service or similar, in which drawing equipment is used instead of a gambling system;

5.   *maximum load:* defined by the certified
licence holder. The term refers to the point where the gambling system will automatically reject bets from players;

6.   *politically exposed person (PEP):* a person who holds, or
has held, a prominent public function in a country or in the management of an international organisation;

7.   *agent terminal:* technical equipment used to
handle different types of games and player information, which cannot be managed by the player, which is part of the gambling system and which does not function when disconnected from the rest of the gambling system;

8.   *round:* a series of events from the time the
licence holder opens a game and the player places a bet until the result of the game has been generated;

9.   *login session:* the period from the time the player logs in to the gambling system
until the player chooses to log out or is logged out by the system;

10.   *random number generator:* an algorithm or physical device intended
to generate a sequence of events (often numbers) with certain statistical properties in common with number sequences, which appear randomly following a given distribution of probabilities;

11.   *UTC:* Coordinated Universal Time. UTC Sweden is available at the BIPM in Paris. It is guaranteed to be retrieved securely by the Research Institutes of Sweden (RISE) in Borås – Sweden's research and innovation partner for business and society – and is referred to as UTC(SP); and

12.   *pot:* all or parts of the players' bets in accordance with the rules of the game in question, where the licence holder retains these bets until they are distributed in full or in part; the pot may consist of a jackpot, pool betting and distributed jackpots.

Chapter 2 Inspection, testing and certification

Section 1 Those applying for a gambling licence must contact an accredited body for inspection, testing and certification of gambling systems, ERP system, procedures, lot-drawing equipment and physical lottery tickets in accordance with Chapter 16, Section 3 of the Gambling Act (2018:1138).
   Provisions on accreditation in accordance with the first paragraph, which is carried out by Swedac, can be found in the Accreditation and Conformity Assessment Act (2011:791).

> General advice:
> If the applicant, or the party providing services on behalf of the applicant, is certified in accordance with the applicable standard ISO/IEC 27001:2014, the requirements set out in Chapter 4–6 of these regulations may already be fulfilled.
> A valid ISO/IEC 27001:2014 certificate, statement of applicability and documented risk assessment must be made available for the accredited body to evaluate.

Section 2 Those applying for a gambling licence must submit documentation of completed inspection, testing and certification to the Swedish Gambling Authority.
   The report must clearly specify which evaluation methods have been used in the inspection, testing and certification processes.
   In order to ensure that the accredited body meets all the requirements in Chapter 3, issued certificates and other documentation relating to the operation must be attached.

Section 3 The inspection record, testing record and certification record must be renewed at least every twelve months.
   If the accredited body finds any faults or irregularities in the ongoing operation that are of relevance to the licence, the licence holder must immediately notify the Swedish Gambling Authority.
   The licence holder must immediately notify the Swedish Gambling Authority if the issuing body

revokes a certificate.

Chapter 3 Accredited bodies

Scope
Section 1 The accrediting process must comprise information security, inspection, testing and certification, as well as risk and vulnerability analyses.

Competence requirements for the accredited body
Section 2 Those applying for accreditation must have experience of work with management systems for information security, inspection, testing, certification and risk and vulnerability analyses.

> General advice:
> Experience refers to at least three years' experience of testing and evaluating management systems for information security, at least two years' experience of risk and vulnerability analyses, or equivalent experience.

Competence requirements for staff of the accredited body
Section 3 Inspection, testing and certification must be carried out by staff with adequate and documented training.
   Staff must be available who have at least five years' experience of inspecting and testing gambling systems, gambling services and online activities, or equivalent experience.
   Staff must be available who have at least five years' experience of risk and vulnerability management, or equivalent experience.
   Cited experience and competences must be proven through certificate or similar documentation.

> General advice:
> Adequate and relevant training may also include other qualifications that allow staff to achieve sufficient competence for the task or tasks.
>   For work with random number generators and other lot-drawing equipment, the responsible supervisor should have a master's degree or PhD in mathematics, statistics or other subject relevant to the assignment.
>   Such qualifications must be documented in the same way as other training, and for work with information security, this can include certifications in accordance with:
> - International Information Systems Security Certification Consortium (ISC)2 Certified Information Systems Security Professional (CISSP);
> - Payment card industry (PCI) Qualified Security Assessor (QSA); or
> - Information Systems Audit and Control Association (ISACA) Certified Information Systems Auditor (CISA).
>   For work with risk and vulnerability analyses, the following certificates can be relevant:
> - International Council of E-commerce (EC-Council) Certified Ethical Hacker (CEH);
> - EC-Council Licensed Penetration Tester (LPT);
> - Information Assurance Certification Review Board (IACRB) Certified Penetration Tester (CPT);
> - Global Information assurance Certification (GIAC) Certified Penetration Tester (GPEN);
> - CESG CHECK Team Leader;
> - CESG CHECK Team Member;
> - CREST Infrastructure Certification;
> - CREST Registered Tester;
> - Tiger Scheme Senior Security Tester; or
> - Tiger Scheme Qualified Security Tester.
>   Inspection, testing and certification can be carried out by staff groups that meet the set requirements all in all.

Chapter 4 The licence holder's information security

Protection of information
Section 1 Important information must be protected from physical and logical breaches and other external influence, and the information must be available when needed.

Personnel administration

Section 2 There must be a policy and procedures to regulate employee authorisations in gambling and ERP systems.

A corresponding policy, establishment of access descriptions and procedures as described in the first paragraph, must be written for other persons who need access to gambling and ERP systems.

Policies and procedures must be documented and regularly updated.

> General advice:
> A policy with associated procedures can include
> 1. detailed work descriptions for each employee;
> 2. which access to information is required for each work description, i.e. for the completion of work tasks;
> 3. in what way changes in the work description are also reflected in what information the employee will have access to; and
> 4. description of which steps to take upon termination of employment.

Access restrictions

Section 3 The gambling and ERP systems must be placed in an area adapted for the purpose.

All entry points to the area where the gambling and ERP systems are handled or stored must be guarded by personnel or technical equipment for access control.

The scope of this access control must be adapted to the regulations regarding risk and vulnerability analyses set out in Chapter 5.

Passcards, codes and keys to areas where the gambling and ERP systems are being handled or stored must be controlled to ensure that there is no unauthorised access.

> General advice:
> A space adapted to the purpose may comprise one or more rooms.

Section 4 Systems for operation and testing must be logically separated.

Systems for testing of generation and validation, as well as actual generation and validation of bases for physical lottery tickets must be logically separated.

Authentication

Section 5 gambling and ERP systems must be equipped with technical and administrative measures to identify the user, the user's system authorisation and registration of the user's activities.

All access to the gambling and ERP systems must be registered.

Codes, passwords or equivalent for the gambling and ERP systems are personal and may not be disclosed or shared, and they must be provided with a level of protection appropriate for the information.

Section 6 The gambling and ERP systems must have a function that continuously registers user identity, date and time of login and logout, and any other activities of relevance to information security.

Section 7 Events outside the technical equipment that have an impact on the gambling and ERP systems must be registered.

> General advice:
> Examples of such events outside the technical equipment that have an impact on the gambling and ERP systems include fire and water damage.
> Registration of events in accordance with Section 7 can be done manually.

Communication and operation

Section 8 It must be possible to safely shut down the gambling and ERP systems in the event of disruption or failure in the electricity supply or communications.

There must be an auxiliary power system to safeguard data integrity, register history, backup data and allow games that are in progress to come to an end.

Section 9 The gambling and ERP systems must have a function that registers all attempts at unauthorised access to the system and other events, and which creates event reports with time stamps.

Section 10 The gambling and ERP systems must be protected against unauthorised intrusion and the insertion of unauthorised and malicious code.

The gambling and ERP systems must have a function to discover malicious code.

There must be documented procedures for updating protection against unauthorised and malicious code.

Section 11 All system changes in accordance with Chapter 6 and any other discrepancies in the gambling and ERP systems must be monitored and registered.

Section 12 The gambling and ERP systems must be backed up at least once per day.

It must be ensured that the systems can be restored from the latest backup point to the time of a possible disruption

Section 13 The gambling and ERP systems must be equipped with appropriate firewalls.

Firewalls must be set up to ensure that no other equipment in the same network can create alternative network paths.

Firewall access must be documented in work descriptions and access descriptions.

All access to a firewall must be registered.

All incidents that affect or are intended to affect the firewalls must be registered.

Section 14 Information must be stored and transferred securely.

Files containing information revealing winnings must be handled so that no unauthorised user can copy or otherwise misuse or damage the data.

If a public network is used for the transfer, the data must be encrypted and the separate subsystems must verify the dispatch and reception and also be protected from incomplete transfers, disruption and copying and sending of unauthorised replies.

Section 15 There must be documented procedures for the handling of portable data media.

If information revealing winnings is sent on data media by post, or equivalent manner, a transport option must be selected that meets the requirements set out in Section 14, second paragraph.

> General advice:
> Portable data media may include laptops and portable memory devices.

Section 16 Only functions that are necessary for the purpose of installing new software shall be activated.

Maintenance and updating of applications in a gambling and ERP system must be done in a secure and controlled manner.

Section 17 Software must be identifiable by name and version number.

The source code of the gambling system must have comments explaining the function of the code.

Storage of registered information, events and logs

Section 18 Registered information, events and logs are to be stored in accordance with Chapter 16, Section 5 of the Gambling Act (2018:1138), kept unchanged and be protected from unauthorised access.

Registered information in accordance with Section 13, fourth paragraph, must be stored for at least three months.

Time reference

Section 19 The gambling system must register time.

All information, events and logs are to be registered in real time.

UTC is to be used as the time reference system.

Chapter 5 The licence holder's risk and vulnerability management

Section 1 The licence holder must carry out a risk and vulnerability analysis to systematically identify and document in a list the information assets of the gambling and ERP systems.

This work also includes considering the operation's dependence on external activities. The choice of method for the risk and vulnerability analysis must be documented.

General advice:
ISO 31000:2009 contains principles and general guidelines for risk management.
   A risk and vulnerability analysis and a list in accordance with Section 1 can contain the following elements:
1. identification of information assets which must be protected/functional at all times (What is to be protected?);
2. identification of risk sources that may impact/threaten identified information assets (What could happen?);
3. risk analysis (How likely is it, and what would be the consequences if it occurred?)
4. risk evaluation to determine which of the identified risk sources need to be further processed and which measures must be taken in response to identified risks;
5. assessment of the ability to resist and manage identified risk sources; and
6. risk processing through identification and prioritisation of measures in response to the analysis results.

Section 2 For each information asset in the list, the following information must be provided
1. a definition of the information asset;
2. a unique identification number;
3. a version number;
4. identifying features of the information asset;
5. decision maker entitled to make decisions regarding changes in the information asset;
6. internal risk evaluation;
7. checksum for information assets classified in accordance with Section 3, second paragraph, points 2–3; and
8. the geographical location of physical information assets.

Section 3 Each information asset defined in accordance with Section 2 must be classified according to the following four criteria:
1. player information – information worthy of protection;
2. integrity of the gambling and ERP systems;
3. availability of player information; or
4. traceability.
Each classification must be assessed according to the following:
1. no relevance (the information asset has no impact on the respective criteria of points 1–4 in the first paragraph);
2. some relevance (the information asset may have an impact on the respective criteria of points 1–4 in the first paragraph); or
3. high relevance (the respective criteria of points 1–4 in the first paragraph are dependent on the information asset).

General advice:
Depending on whether and how virtualisation, e.g. cloud services, is used in the gambling and ERP systems, redundancy and availability of data may be affected. Different methods of virtualisation may entail different classifications of an information asset. The licence holder should be attentive to how the classification of a hardware information asset is affected and possibly changed depending on the internal or external selection or development of visualisation.
   If an external cloud service provider is used, it should be ensured that they meet the requirements set out in the regulations.

Section 4 The licence holder must appoint a decision maker responsible for risk and vulnerability analysis as well as management of information and incidents that may arise in accordance with this chapter.
   There must be documented procedures for monitoring, detection, analysis, management, reporting and registration of security and information security incidents.

Section 5 There must be a function and documented procedures for the management of breaches and attempted breaches of the gambling and ERP systems.

All intrusions and attempted intrusions of the gambling and ERP systems must be registered.

Chapter 6 The licence holder's system changes

Section 1 There must be a documented process for version management and a version management system for updates or changes of the information assets listed in accordance with Chapter 5, Section 2.

Section 2 Updates or changes to an information asset classified as critical and of high relevance in accordance with Chapter 5, Section 3, second paragraph, must immediately be reviewed by an accredited body.

Updates or changes to an information asset that has been classified as having some relevance in accordance with Chapter 5, Section 3, second paragraph, must be reviewed in conjunction with the regular certification process pursuant to Chapter 2, Section 3, first paragraph.

Section 3 If there is an internal function managing quality assurance of updates or changes to information assets, the accredited body may approve changes being made without review pursuant to Section 2, first paragraph, provided that
1. the function is organisationally separate from the function implementing the updates or changes and
2. the function has personnel with adequate training and experience.

Updates or changes to an information asset in accordance with the first paragraph must be reviewed in conjunction with the regular certification process pursuant to Chapter 2, Section 3, first paragraph.

Section 4 In case of update or changes to information assets in accordance with Section 1, a risk and vulnerability analysis must be carried out.

Section 5 There must be a decision maker appointed to take responsibility for and make decisions regarding each update or change to an information asset.

Section 6 A version management system must contain information regarding requests for changes, approved changes and implemented changes to information assets.

Previous versions of information assets must be stored and made available for audit.

> General advice:
> Previous versions of information assets in the form of hardware may be destroyed.

Chapter 7 Functions for the licence holder's game administration

Activation and deactivation of games
Section 1 The licence holder must be able to immediately activate or deactivate each game or its players; either one or more games, or an individual player or all players at once.

Measures pursuant to the first paragraph must be registered and documented.

> General advice
> A game can for example be deactivated by temporary concealment if the licence holder discovers faults in the game or relating to an individual player.

Section 2 It must be possible to finish playing a game that has been deactivated.

For games played in several steps, it must be possible to finish playing the game when the player next logs in.

Interrupted games
Section 3 It must be possible to finish playing an interrupted game, unless otherwise specified in the rules of the game.

An interrupted game must be shown to the player, along with any bets made, once the gambling system is reconnected.

Bets referred to in the second paragraph must be kept separate and be separately reported in the

player's player account until the game is finished.

> General advice:
> A game can be considered interrupted if, for example, the gambling system is disconnected from the player's equipment, if the gambling system or the player's equipment restarts, or if the gambling system is unexpectedly shut down.
> A game can also be considered interrupted if it has not been possible to finish a game or a race has been cancelled.

Section 4 If an interrupted game is not finished within 90 days, it must be terminated.

The rules of the game must clearly state what will happen to a player's bet if a game is terminated before being finished.

Fault management

Section 5 There must be documented procedures for all games on how to manage faults and deficiencies.

The rules of the game must clearly state what applies in relation to the player in the event of faults and deficiencies.

Section 6 Any errors and faults that arise must be registered and documented.

Causes and solutions of errors and faults in the first paragraph must be registered and documented.

Section 7 It must be ensured that an interrupted game or other errors and faults will not negatively affect a player's player account or game balance.

In the event that a player is unable to finish a game due to errors and faults, there must be **a function calculating the amount that will be returned to the player.**

Section 8 The value of a pot must not be affected by errors and faults.

Chapter 8 Information that a gambling system must be able to generate

Section 1 It must be possible to create reports, in the gambling system or manually, regarding suspected cheating, as referred to in Chapter 19, Section 6 of the Gambling Act (2018:1138).

It must be possible to create reports, in the gambling system or manually, regarding suspected cheating, collusion between players, attempted cheating and collusion between players, as well as other registered violations of the terms of use and rules of the game.

It must be possible to create reports, in the gambling system or manually, regarding illicit manipulation of the outcome of a game subject to betting.

Section 2 The gambling system must have a function for generating reports regarding deviations or changes in a player's gambling habits and gambling patterns which result in responsible gambling measures.

Section 3 The gambling system must have a function to generate reports for all player registrations.

The gambling system must have a function to generate reports for all open and closed temporary player accounts referred to in Chapter 13, Section 4, first paragraph of the Gambling Act (2018:1138).

Section 4 The gambling system must have a function to generate reports for all registered players, the players' account information and registration dates.

Section 5 The gambling system must have a function to generate reports of all players that have excluded themselves from gambling for 24 hours, for a certain period of time or indefinitely, in accordance with Chapter 14, Section 12 of the Gambling Act (2018:1138).

Section 6 The gambling system must have a function to generate reports of all players who have set limits in terms of time, bets or deposits to their player account.

The gambling system must also have a function to generate reports on the number of players who have lowered or raised their limits in terms of time, bets or deposits to their player account.

Section 7 The gambling system must have a function to generate reports on inactive player accounts.

> General advice:
> It should be clear from the licence holder's agreement with the player when a player account is considered inactive and what will happen to any outstanding balance once the account has been inactive for a certain period of time.

Section 8 The gambling system must have a function to generate reports on all player accounts that have been closed.

If a player account has been closed, it must be indicated why it was closed and whether it was closed by the player or the licence holder.

Section 9 The gambling system must have a function to generate reports on all player accounts with a positive balance which have been closed for more than five working days.

Section 10 The gambling system must have a function to generate a report for each player account.

> General advice:
> A report should contain information on balance, deposits, bets, winnings and withdrawals.

Section 11 The gambling system must have a function to register the full login session of an individual player.

It must be possible to provide the following in one or more reports in accordance with the first paragraph

1. player ID;
2. start and end time of the login session;
3. player equipment;
4. total bets during the login session;
5. total winnings paid out during the login session;
6. total deposits to player account during the login session (time-stamped);
7. total withdrawals from player account during the login session (time-stamped);
8. time of final confirmation during the login session;
9. reason for terminating a session; and
10. identification of games and versions played during the login session.

Section 12 The gambling system must have a function to register and generate one or more reports with information on the player's transactions during the login session.

It must be possible to provide the following in one or more reports in accordance with the first paragraph

1. player ID;
2. start time of the game;
3. the player's balance at the start of the game;
4. bet (time-stamped);
5. contribution to the pot;
6. status of the game;
7. outcome of the game (time-stamped);
8. distribution of the pot;
9. end time of the game;
10. winnings;
11. the player's balance at the end of the game; and
12. all interrupted games and the reason why they were not finished.

Section 13 The gambling system must have a function to register and generate one or more reports regarding events in the gambling system.

It must be possible to provide the following in one or more reports in accordance with the first paragraph

1. substantial winnings;
2. large transfers of funds;
3. changed terms of a game;
4. changed terms of a pot;
5. new pots;
6. player participation in the pot;
7. distribution of the pot; and
8. interrupted games with a pot.

Section 12 The gambling system must have a function to register and generate individual and aggregate reports on one or more of the licence holders rounds.

It must be possible to provide the following in one or more reports in accordance with the first paragraph

1. name and serial number of the round;
2. start time of the round;
3. end time of the round;
4. total turnover;
5. number of bets;
6. licence holder's bet;
7. financing of the pot;
8. value of the pot before the start of the game;
9. value of the pot at the end of the game;
10. possible outcomes;
11. actual outcome;
12. total amount of winnings;
13. total number of winners;
14. number of winners at each level;
15. number of right answers;
16. total payout; and
17. number of players who did not complete the round and the reasons for this.

> General advice:
> A possible outcome can be a situation in which there is a possibility for a unique outcome that is not directly indicated in the relevant payout table, for example in 1X2 betting on a football match.

Chapter 9 Functional requirements for the licence holder in relation to the players

Registration of the player and access to the gambling system
Section 1 The gambling system must have a function to register players.

The player's access must be authorised using a personal and unique access code every time they log in to the gambling system.

> General advice:
> Following the initial registration, for which the Gambling Act requires the player to prove their identity with bank ID or similar, the licence holder may continue to request verification by bank ID or similar. The licence holder may alternatively choose to have the player create a user name with an associated access code.
>   A function in the gambling system should inform the player of how they can set up a unique and secure access code.

Section 2 The gambling system must have a function to verify the player's age.

Section 3 If a PEP check has been performed in accordance with Chapter 3, Section 10 of the Anti-Money Laundering Act (2017:630), the check must be registered in the gambling system.

> General advice:
> Registration can be performed by adding a PEP box in the player register indicating 'yes' or

'no'.

Section 4 All logins to a player account and all attempted logins must be registered.

The gambling system must have a function to detect any attempts at unauthorised access to a player account.

If an unauthorised person has attempted to access a player account, the player must be informed immediately and thereafter in accordance with the agreement between the licence holder and the player.

> General advice:
> A notice of attempted unauthorised access to a player account can be communicated in the manner that the licence holder deems to be appropriate at the time, for example via text message, e-mail or information upon login.

Section 5 A player's identity, and the date and time must be registered each time they log in and out.

When a player logs in to the gambling system, the time and date of their latest login must be available to the player.

Section 6 The gambling system must have a function and documented procedures for the secure change of access codes.

It must not be possible for the licence holder to unilaterally change a player's access code.

> General advice:
> If needed, a temporary code can be sent to the player's registered e-mail or registered mobile phone number.

Player account

Section 7 The gambling system must have a function to manage and register all financial transactions going in and out of a player account in accordance with Chapter 13, Section 3 of the Gambling Act (2018:1138).

Section 8 When funds are deposited into a player account, the licence holder must be able to verify that the account holder for the provided bank card/bank account or other payment service is the same person as the holder of the player account.

The first paragraph still applies if a player changes bank cards, bank accounts or other payment service.

> General advice:
> This verification can be done using bank ID or similar.

Section 9 A player must be able to see their balance in the player account immediately after each completed transaction.

There must be a function to show the player which games they have participated in, all the bets made and all the winnings paid out in accordance with Chapter 13, Section 3, first paragraph of the Gambling Act (2018:1138).

Limitations of deposits, losses and login sessions

Section 10 For online games, there must be a function for the player to easily set a limit for deposits that can be made each day, week and month.

A player who has not set limits for deposits in accordance with the first paragraph may not gamble.

Section 11 For online games, there must be a function where the player can easily limit the time they spend logged in.

Section 12 There must be a function that can give the player warning messages regarding winnings and losses during the login session as well as information on how long the player has been logged in.

Section 13 Only the player themself shall be able to set the limits pursuant to Sections 10 and 11.

Exclusion from gambling

Section 14 The gambling system must have a function that allows players to easily exclude themselves temporarily or permanently from a game.

Section 15 The gambling system must have a function checking for self-exclusion or restricted gambling every time a player registers or logs in to the gambling system.

Initiated game
Section 16 During gambling, there must be a function and documented procedures to prevent the placing of a bet once the time set by the licence holder for lot-drawing or an event which will yield a future result has begun.

> General advice:
> When relevant, betting can occur during an ongoing match or similar, for example bets on which team will score next or who will be the man of the match.

Chapter 10 Payout percentage

Section 1 For games with progressive winnings, the minimum payout percentage must be indicated to the player.

Section 2 The gambling system must have a function to monitor the payout percentage of each individual game.
   Data that is generated in accordance with the first paragraph must be stored and kept available for audit.

Chapter 11 Game instructions, payout table and pot

Game instructions
Section 1 Game instructions must be complete, unambiguous and non-deceptive.

> General advice:
> Game instructions may be translated into other languages, in which case they must have the same content as the original instructions.

Section 2 Game instructions and rules must be available without placing a bet.

Section 3 Game instructions must be available through the same type of medium as the game.
   Game instructions must be easily accessible.

> General advice:
> If the characteristics of a game change temporarily during an ongoing game, the game instructions should be automatically adapted to the change.

Payout table
Section 4 There must be documented quality assurance procedures to ensure that the configuration of payout tables is correct.
   There must be documented procedures to ensure that the calculations of payout tables are correct.

> General advice:
> These procedures can be both automatic and manual.

Pot
Section 5 There must be rules for how a player can win a pot. It must be clearly stated how the pot is financed and distributed.

Section 6 It must be clear from the rules how a pot will be divided if there is more than one winner.

Section 7 It must be clear from the rules how a licence holder can cancel or terminate a pot.

Chapter 12 Abnormal gambling patterns and cheating

Section 1 The gambling system must have a function, and there must be documented procedures, to detect the occurrence of cheating and collusion between players, attempted cheating and collusion between players, and other violations of the terms of use and rules of the game.

Section 2 The gambling system must have a function that allows players to easily and immediately report suspected cheating, cheating, and collusion between players, attempted cheating and collusion between players, and other violations of the terms of use and rules of the game.

Section 3 There must be a function for analysing and producing data for reports on illicit manipulation of the outcome of a game subject to betting.

Section 4 There must be documented procedures to detect and counteract deviations and abnormal gambling resulting from manipulation of games and software.

Chapter 13 Functional requirements for random number generators

Section 1 The results from a random number generator must be random, statistically independent, have a correct standard deviation and correct probability distribution.

   The results yielded by the random number generator must not be predictable without knowledge of the applied algorithm, implementation and initial values.

> General advice:
> There are several statistical tests that can be used to ascertain the results of a random number generator. The DIEHARD test suite (Marsaglia) and the NIST test suite (National Institute of Standards and Technology) are two of the tests that can be used.

Section 2 There must be a documented reference to a well-established algorithm and any source code as well as to the recalculation procedure of the random number generator.

   If the random number generator is built in to the software, it must be possible to present the entire source code, along with comments and documentation.

> General advice:
> The algorithm that the random number generator is based on should be published in an internationally recognised publication.
> The outcome tests that may be used on generated random numbers include the X2 test (chi-squared-test), the autocorrelation test and the runs test.
> The licence holder can enable verification of the set payout table by having the accredited body or the Swedish Gambling Authority to review programmes, plates, logs, verification lists or other documentation for the payout table.

Section 3 The random number generator must be able to withstand the set maximum load.

Section 4 Functions that do not generate outcomes in games but which depend on random elements must be based on the results of the random number generator.

> General advice:
> Such functions may include a randomised sequence or placement at a poker table during a tournament.

Section 5 Calculations based on a random number generator must have a correct standard deviation and correct probability distribution.

   The numbers, symbols or events resulting from the random number generator must correspond with the rules set for the game involved.

> General advice:
> If the random numbers are translated into cards, for examples, there should be four aces, four kings, etc. in a normal deck, if the game uses a normal deck.

Section 6 The calculations of the random number generator must correspond to the events registered in the gambling system.

Section 7 If the rules of the game requires a sequence from a random number generator to be set in advance, it is only allowed to generate new sequences if this is stated in the rules.

Section 8 Unless otherwise specified in the rules of the game, the results from a random number generate must always be independent of events in the current or previous games.

Drawing equipment without a random number generator
Section 9 The results from drawing equipment without a random number generator must be random, statistically independent, have a correct standard deviation and correct probability distribution.

> General advice:
> The outcome tests that may be used on generated random numbers include the X2 test (chi-squared-test), the autocorrelation test and the runs test.

Section 10 Independent drawing equipment without a random number generator must be kept locked in with limited access.

Drawing equipment for live casino games
Section 11 Drawing equipment used in live casino games must be monitored and recorded.
  The recorded material must show compliance with the rules of the game.
  The recording must register date and time.

Section 12 There must be physical access control for the premises used for live casino games and any associated areas.
  There must separate access control, at least for different employee categories.

> General advice:
> Dealer, floor manager, supervisor, surveillance staff are examples of various types of employees that should be categorised into different authorisation groups.

Chapter 14 Functional requirements when agent terminals are used for bets and control

Agent terminal
Section 1 The gambling system must be able to clearly identify an agent terminal.

> General advice:
> An agent terminal is part of the gambling system and identification can be made through validation of a checksum for the terminal's individual parts, or similar procedure to ensure the integrity of the whole system.

Section 2 Communication between an agent terminal and the other parts of the gambling system must be protected during transfer by encryption or equivalent.

Section 3 Player or payment transactions sent from an agent terminal to other parts of the gambling system must be validated by the terminal at the end of the transaction before printout.

Agent terminal for validation of winnings
Section 4 If an agent terminal is used to validate winnings, it must be fitted with a screen intended to communicate information to the player.
  The following information must be displayed on the screen that is turned towards the player
  1. form of gambling;
  2. bet;
  3. cancellation;
  4. amount won, or "no win"; and
  5. game closed.

Chapter 15 Functional requirements for online games

Game design

Section 1 Games with interactive options must have illustrations that clearly show current and possible bets.

   Games in accordance with the first paragraph must clearly illustrate the possibility of changing or resetting the current bet.

Section 2 Each round must last for at least three seconds.
The first paragraph also applies to autoplay functions.

Section 3 A player's participation in a game, and the choices made by the player in the gambling system, must be optional.

   A player must be given a reasonable period of time to consider the consequences of a choice.
   Repeated choices made by a player in the gambling system must not be able to be placed in a queue.

> General advice:
> Choices that can be made include "buy", "pay", "spin", "play", "hold", "draw", "double".

Visual presentation

Section 4 The name of the game must be displayed on all pages associated with that particular game.

Section 5 The gambling system must have a function that continuously shows the player how long they have been logged in.

Section 6 The gambling system must have a function that continuously shows the player their balance throughout the session.

Section 7 The bet on a game must be clearly displayed.

   The player's possible and actual bets, as well as the minimum and maximum bets, must be clearly displayed.

   The gambling system must have a function that clearly visualises the player's bet, including the total bets in the game.

> General advice:
> An example of when a player's bet may be included in the total bets is when the player can bet on a combination of things happening in a single bet.

Section 8 A player must be informed that there are factors beyond their control, which may affect the game and its outcome.

> General advice:
> Factors that may affect a player include the use of automation or add-ons for automatic features.

Section 9 The outcome of a game must remain visible for a reasonable period of time.

Section 10 Computer-simulated gambling machines must clearly indicate or illustrate which symbols represent a win.

   If different combinations of symbols lead to a win, these must be clearly indicated or illustrated.

Section 11 If the characteristics of a game change temporarily the game must clearly indicate the current status before the next game.

Section 12 A symbol that is used in a gambling system must have the same shape and colour throughout that particular game.

Section 13 The number of active decks as well as which cards are included in a particular game must be clearly indicated.

   The front of the card must clearly show its suit and rank.
   The rules of the game must clearly state when the cards will be shuffled.

In different games, cards other than the playing cards may be included.

Section 14 If a non-traditional die is used in a dice game, this must be made clear to the player.
It must be clearly indicated which side of a die wins a game.

Section 15 A gambling system must have a function to prevent players playing against themselves.
A gambling system must have a function to discover and prevent one or more players using the same gambling equipment at the same time.

Section 16 The current pot amount must be visible to all participating players.

Section 17 A player must immediately be informed of winning the pot.
Once a pot has been won, all players must be informed of its new value.
Information pursuant to the second paragraph must also be available to players who have not participated in the specified pot.

Section 18 It must be clearly stated if a pot is not available to a player.
It must be ensured that all information given to the players is correct, regardless of whether or not a pot is available.

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1. These regulations and general advice enter into force on 1 January 2020 in regard to Chapter 14, Section 4, and otherwise on 1 January 2019.

2. The regulations are also applicable to licence applications submitted to the Swedish Gambling Authority after 1 August 2018 in reference to the period after 1 January 2019.

3. These regulations repeal the Swedish Gambling Authority's regulations on requirements for equipment used by organisers of lotteries communicated by means of electromagnetic waves (LIFS 2013:3).

4. However, the repealed regulation is still applicable to decisions issued in accordance with the Lotteries Act (1994:1000) prior to 1 January 2019.

On behalf of the Swedish Gambling Authority

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