



ALDERNEY GAMBLING CONTROL COMMISSION

Technical Standards Extract Document

**Version 2.0
2nd July 2008**

BACKGROUND AND OVERVIEW

Items marked **T** are “Technical Standards,” generally applicable to the licensee’s operations, and standards which the Commission will evaluate when assessing the suitability of electronic gambling equipment (EGE). The Commission may make written exception for meeting a Technical Standard upon sufficient justification. Items marked **G** in addition to a **T** are Guidelines mixed with the Technical Standard, and the licensee must meet the technical element in addition to mitigating the risk with procedural controls which the licensee should describe in the ICS.

SECTION 2: ACCOUNTING SYSTEMS

2.13 Jackpot accounting

Describe the accounting controls and audits for jackpot pools and diversion pools. *The licensee should perform accounting reconciliation of jackpots at least daily.*

- ii) **GI** For non-promotional jackpots, the Interactive Gaming System (“IGS”) should provide adequate reconciliation to ensure that all jackpot increments deducted,
 - a) have been paid to customers as prizes, or
 - b) are displayed as part of prizes, or
 - c) are held in separate accounts.

SECTION 3: CUSTOMER REGISTRATION, VERIFICATION, BANKING AND MANAGEMENT

3.1 Terms Governing Customer Accounts

3.1.1 Agreement

T The registration process shall include the prospective customer's agreement to the terms and conditions of the licensed operation. (R338).

3.1.2 Terms and Conditions

T The customer can only advance to play for consideration or value if they take an action to acknowledge the agreement. This action shall be logged in the system. *Where it is not possible to present the full terms and conditions to the customer at the point of registration, for example, for telephone betting, customers must be provided with easy access to the operator's terms and conditions.*

3.2.5 Multiple Customer Accounts

G T If the licensee intends to allow customers to have more than one active registered account, describe the controls which mitigate the various risks stemming from the practice. *The Commission expects that the licensee will address the following concerns in the analysis:*

- *How the licensee structures multiple accounts (e.g. master and sub-accounts, separate wallets, linking a group of accounts, etc.).*
- *How the licensee mitigates the potential for money laundering by the use of multiple accounts and diverse funding mechanisms.*
- *The customer should not have the ability to play against himself using multiple accounts.*
- *Inactive accounts.*
- *At-risk customers, problem gamblers, excluded customers, and player protection mechanisms are applicable to the customer, not to the account.*
- *The licensee should not create a new account for a customer if the reason for the deactivation of a previously registered account indicates that the customer should not be permitted to establish another account.*
- *If multiple account controls cannot be automated, the licensee should define alternative controls within relevant sections of the ICS which ensure the appropriate linkage of the multiple accounts.*

3.2.6 Customer Account Access

T Successful registration of the customer will result in the creation of a customer account unique to that individual.

- ii) **T** Describe how customer accounts are secured against unauthorised access, whether internal or external to the operation.

- iii) **GT** Describe the secure procedures for allowing a customer direct (unassisted) access to their account, whether online or by other means. *It is expected that a customer will only access the customer's own account directly by the use of at least a User ID and password.*
- iv) **GT** Describe the secure procedures for allowing a customer indirect (assisted) access to their account, whether online or by other means. *It is expected that customer service staff should make use of challenge questions to identify the person making a remote request to access an account for any purpose, or sufficient alternative control to ensure the licensee has high confidence a customer has been accurately identified as the owner of the account. A challenge question and answer can be determined either through the registration process, or by the staff member asking the customer to confirm details about the account which only the actual registered user would know.*
- v) **GT** Describe the secure procedures for dealing with lost customer User IDs or passwords. If email is a component of this process, detail the control for addressing circumstances where a customer no longer has access to the email address of record, and the security of utilising email as a medium for communicating secure information. *Given that email is not face to face communication, and that email is not a secure means of communication, it is expected that the licensee will have compensating controls to mitigate these risks which threaten secure customer data.*

3.3.2 Deposits

- v) **GT** Crediting Customer Accounts with Customer Funds

Describe how the licensee credits customer accounts with deposited funds, and any conditions or limits on those funds related to the payment processor. *If the licensee conditions or limits deposited funds, the licensee should clearly notify the customer of the conditions or limits.*

Regulation 334 restricts a licensee's recourse to customer funds on deposit. Describe the constraints the licensee imposes on a customer's ability to apply deposited funds, and how the customer is advised of these constraints. *The Commission does not expect constrained deposits, although the licensee may decline to award bonuses or promotions which remain unfulfilled by virtue of funds withdrawal prior to securing eligibility for the bonus or promotional award. (R334).*

3.3.3 Credit Extended to Customers

- ii) **GT** Document the procedures which ensure that customers are not allowed to overdraw their accounts or exceed their credit limit, and that bets are refused and withdrawals are not allowed under circumstances when funds are not available. *Wagers based upon credit are deemed properly made, and may not be voided by virtue of any failure of the credit relationship. The Commission expects that the licensee would satisfy the debt from any winnings or future deposits.*

3.3.4 Account Management

- i) **GT** Describe the procedures for the debiting of wagers from the customer's account and the crediting of bonuses, promotions, prizes, or winnings to the customer's account. (R335, 337).

GT The licensee must credit the customer's account with the prizes or winnings attributed to a completed game at the time the game is completed. (R335). *Except in circumstances specifically identified in the ICS, there should be no possible circumstances in which the licensee retains unclaimed prizes, winnings, or other pools of customer money.*

- iii) **T** The IGS should maintain all deposit, withdrawal, transfer or adjustment transactions in a system audit log.

3.3.5 Withdrawals from a Customer's Funds

GT The licensee should obtain positive identification of a customer before a customer may request withdrawal of moneys in the customer's account. *This is usually accomplished by requiring the customer to employ login credentials before completing a withdrawal request.*

- ii) **Limits on Withdrawals**

GT A customer should be able to withdraw funds up to the current balance of the account, net of any credit liability or pending wagers, at any time, in a single transaction. (R334, 336, 337).

- v) **Customer fund transfers**

GT Customer fund transfers implicate two significant risks: the potential for money laundering and enabling or promoting problem gambling. Describe the licensee's programme and controls for customer transfers and gifts which mitigate these risks. *The Commission expects that the licensee would apply controls similar to those applied for withdrawals and deposits to mitigate both risks and may also implicate enhanced customer due diligence procedures. Additionally, the licensee might also integrate bonus fund programming to minimise money laundering risks.*

3.3.7 Customer Activity Statement

GT Customer activity statements promote player protection. Describe how the licensee accounts to the customer for all fund management and gambling transactions. *The IGS should provide registered customers with on-line account statements displaying details of deposits, withdrawals, bonus activity, wins and losses, aggregate winnings, aggregate losses, credit transactions, and duration of play for each day of the period requested, and totals of these details. Statements should include sufficient information to allow the customer to reconcile the statement against the customer's own records, down to the session level.*

3.5 Customers at Risk

3.5.3 Licensee Limitation on Customer's Gambling Activity

ii) Involuntary Exclusion

GT The IGS should provide a mechanism by which appropriate licensee staff can exclude a customer from the IGS. (R339, 340).

- *This mechanism should include a register of reasons for the exclusion. E.g. harassing help-desk staff, harassing other customers, problem gambling, etc.*
- *As soon as the exclusion takes effect, the licensee must not accept new bets or deposits from that customer, until such time as the exclusion has been revoked.*
- *During the exclusion period, the customer must not be prevented from withdrawing any or all of their account balance (R334), provided that the system acknowledges that the funds have cleared, and that the reasons for exclusion would not prohibit a withdrawal. E.g. investigative hold, suspected money laundering, suspected cheating, etc.*

3.5.4 Customer Self Limitation

i) **GT** The licensee shall provide customers with easy and obvious mechanisms to self-limit their game play, in accordance with Regulation 340. Describe the mechanisms the customer may exercise.

ii) **T** Immediately upon receipt of any self-limitation order, the IGS must ensure that all specified limits are correctly implemented in the system. *If the licensee operates by the application of two or more independent gambling platforms, each with separate customer protection protocols, the licensee must define controls to ensure that customer protections are unified across all operating platforms as an integrated system.*

iii) **T** Once a customer establishes a limit, any relaxation of that limit may only become effective after 24 hours' cooling off period. However, it must be possible for a customer to increase the severity of self-limitations at any time, with no waiting period. (R340).

iv) **T** In the case of temporary self-exclusion, the IGS should ensure that:

- Immediately upon receipt of the self-exclusion order, no new bets or deposits are accepted from that customer, until such time as the temporary self-exclusion has expired, and
- During the temporary self-exclusion period, the customer is not prevented from withdrawing any or all of their account balance, provided that the system acknowledges that the funds have cleared.

v) **T** In the case of indefinite self-exclusion, and immediately upon receipt of the self-exclusion order, no new bets or deposits are accepted from that customer, until such time as the permanent self-exclusion has been revoked, and the customer must withdraw all funds to clear the account.

3.5.5 Player Protection Information

Regulation 340 requires licensees to provide player protection resources to customers.

T The licensee should provide the customer with reasonable access to a player protection page which should be readily accessible from any screen where game play or wagering activity may occur. *The gambling portal or interface will largely determine the reasonableness of the proposed solution.*

- ii) **GT** No game play may occur where the links used to supply information on customer protection or responsible gambling are not displayed or are not operational. Describe how the licensee maintains the integrity of its problem gambling links. *The licensee should regularly test all links to problem gambling services provided by third parties. Where the service is no longer available or not available for a significant period of time, the licensee is to provide an alternative support service.*
- iv) **T** A link to the terms and conditions the customer agreed to upon registration.
- viii) **T** Confirm that when a customer logs into a system the last time they logged in is displayed. *The purpose of this requirement is to enable the customer to identify if someone else has been using their password and log-in ID to access their account for play (e.g. a family member).*
- ix) **T** All account related functions on a site (including the deposit function) should provide a readily accessible link to the customer protection page.

3.6 Accepting Wagers

3.6.1 Real Play

T A licensee shall not permit a person to participate as a customer in an authorised game or accept a wager from a customer in an authorised game unless:

- i) The customer is identified and verified as a properly registered customer, with an account established in the name of the customer, and
- ii) There are adequate funds in the account to cover the amount of the wager.

Whether the customer is playing in or from a proper location is a matter left to the licensee's business risk assessment. (R331, 332)

3.6.2 Fun Play

GT If the licensee offers fun play opportunities to the public, describe the manner in which fun play is offered, and the controls in place to ensure customers for fun play are not able to engage in play for consideration (gambling) without full compliance with the regulatory controls identified in the Ordinance, Regulation, and the ICS. *While the Commission does*

not intend to fully regulate fun play activity, it considers fun play to constitute marketing and advertising activity and it is therefore governed by the Regulations on advertising standards. (R21(b), 169(b)). For example, the Commission expects that fun play games will offer the fun player an identical theoretical percentage return to player and gaming experience as the licensee offers at the same moment to registered customers for gambling.

3.8 Registers

The licensee should maintain registers of essential gambling information. The Commission may request sight of the registers, and on occasion hard copies may have to be provided. *In conjunction with monthly operational reporting requirements, the Commission expects the licensee will update all registers at least monthly, if they are not maintained in real time. The licensee may satisfy this requirement by having the ability to generate an automated register on demand. The information required should include the following data:*

- i) **T** *A list of all registrations, complete or incomplete.*
- ii) **T** *A list of all registered customers and customer account details. Include inactive accounts.*
- iii) **T** *A list of excluded customers.*
- iv) **T** *A list of customers' bet limits.*
- v) **T** *A list of customer accounts closed during the current fiscal year, broken down by reason (customer request, abandoned, fraud/security, other).*

SECTION 4: eGAMBLING

4.1 Hosting Premises

I Identify the approved premises within the Bailiwick of Guernsey from which the licensee will effect lawful eGambling transactions.

Section 3(a) of the Ordinance provides an eGambling licensee will only conduct lawful gambling if it exercises its eGambling licence from approved premises in Alderney or Guernsey, controlled by the holder of a hosting certificate.

The Commission has approved a number of hosting venues which meet the Commission's minimum standards. These sites are listed on the Commission's website.

If the licensee is relying entirely upon premises which the Commission has previously certified or approved, the licensee need only identify the provider and the provider's premises.

If the licensee proposes to use premises which the Commission has not previously approved, or upon previously approved but subsequently modified premises, the ICS should clearly indicate the premises where the licensee's systems are being hosted and the certification of the premises. Any changes to the hosting arrangement with hosting certificate holders should be reflected in the ICS of the licensee, setting out the full configuration of the system, indicating where the different components of the system are being hosted.

4.2 Alderney Branding

I If the IGS shows an Alderney Gambling Control Commission logo, icon, brand, or trademark (whether provided by the Commission or otherwise) anywhere within its operation, it should be hyperlinked to the Commission's home page.

4.3 Random Number Generator (RNG) Requirements

4.3.2 RNG Suitability

I The fundamental requirement is that the use of an RNG results in the selection of game symbols or production of game outcomes which are able to be proven to:

- a) Be statistically independent
- b) Be uniformly distributed over their range
- c) Pass various recognised statistical tests
- d) Be unpredictable without the knowledge of the algorithm, its implementation, and the current value of the seed (all of which should be secure).

I Outcomes derived from the RNG are to be distributed within statistically expected bounds, including normal distribution.

4.3.3 Failure

Describe the licensee's RNG failure monitoring programme, to guard against, and detect, RNG failures.

- i) **IT** If a hardware RNG is used, the licensee shall implement a fail-safe mechanism to disable game play in the event that the device fails.
- ii) **IT** If a software RNG is used, the licensee shall employ dynamic monitoring of the output.

4.3.4 RNG seeding

GI Describe the method of seed set generation and the policy for reseeding the RNG. *The method of seed generation should ensure that the "next" game outcome is NOT predictable. The Commission must approve this methodology before it is implemented. Seeding and reseeding should be kept to an absolute minimum. Reseeding should not be a routine or regular practice.*

4.3.5 Mapping and Scaling Algorithms

- i) **IT** The range of values produced by the RNG should be adequate to provide sufficient precision and flexibility when setting event outcome probabilities, so as to accurately achieve the desired and expected return to player.
- ii) **IT** If a game requires a random number within a range shorter than that provided by the RNG, the method of rescaling (i.e. converting the number to the lower range) is to be designed such that all numbers within the lower range are equally probable.
- iii) **IT** The scaled sequence of numbers should pass the same statistical tests as applied to the sequence of numbers produced by the RNG; scaling algorithms should not introduce bias, or result in the production of patterns.
- iv) **IT** The licensee should be able to verify that the results offered by the RNG are the same as held in the IGS after the event.
- v) **IT** Any mapping or scaling to convert random numbers into events of chance should be linear and the distribution of the events of chance should be identical to the distribution of the unmapped random number from which they were derived. Exceptions to this criterion are metamorphic random prizes awarded under approved rules but not subject to the outcome of any game in particular.
- vi) **IT** Events of chance should demonstrate that they are statistically random when subject to the same statistical tests for randomness that is specified for the base random number generator.
- vii) **IT** As events of chance occur (e.g. due to calls to the RNG by the game), they should be immediately used as directed by the rules of the game; they are not to be discarded due to adaptive behaviour by the game.

- viii) **I** Where the rules of the game require a sequence or mapping of entities or events to be set up in advance (e.g. the position of hidden objects within a maze), the entities or events should not be re-sequenced or remapped except as provided for in the rules of the game.
- ix) **I** Except as provided by the rules of the game and for metamorphic games, events of chance within games should be independent of (i.e. not correlated with) any other events within the game or any events within previous games.
- x) **I** Determination of events of chance should not be influenced, affected or controlled by anything other than numerical values derived in an approved manner from the verified RNG in conjunction with the rules of the game. *This does not prohibit metamorphic games or jackpots determined by means other than individual game outcome from being considered on a case-by-case basis.*

4.3.6 Information on Percentage Return to Player

- i) **I** Display on the website or client, preferably in the rules for each game, information on the theoretical percentage return to the customer (RTP%).

For example:

- a. *A strategy based game might have a range, with a qualification that the return depends on strategy used.*
- b. *A slot type game may have a deviation and expected return after a specified number of games. It may be explained that due to the random nature, some games will win, others will lose, the outcomes are random and the return to a customer is a statistical average.*
- c. *For gambling in which the licensee takes a rake, vigorish, or other percentage of a wager or pool of wagers, the licensee should clearly display this to the customer.*

This does not prohibit the licensee from displaying RTP data that is derived from output testing, in addition to the theoretical RTP.

- ii) **I** Where a progressive prize is offered, it should be implemented such that the base return + seed + increment rate of the progressive ensures that the theoretical minimum return is correctly represented to the customer.

4.4 Customer Game Session

4.4.1 Game Session

G I Describe how a customer session is controlled. *For example, licensees should give a customer an electronic identifier such as a digital certificate or an account description and a password to establish a session.*

4.4.3 Transaction Logging

GT Describe the arrangements for

- i) Adequate off-site transaction logging (IN CONJUNCTION WITH daily backups of customer accounts) to ensure all customer monies can be recovered in the event of a disaster rendering the site inoperable.
- ii) Adequate off-site transaction logging (IN ADDITION TO daily backups of customer accounts) to ensure all customer monies can be recovered in the event of a disaster rendering the site inoperable.

4.5 Malfunction and Non-Responsive Games

4.5.1 Malfunction

- i) **T** The message “Malfunction Voids All Pays and Play” or its equivalent should be clearly displayed on the rules for each game.

4.5.2 Non-Responsive Games

GT Detail the procedures which describe what will be done in the event of non-responsive or problem games.

4.6 Foreign Business Associates (connecting to external gaming systems)

GT A licensee may make use of Foreign Business Associates only as defined and provided in the licensee’s approved ICS. Describe the integration of the Foreign Business Associate’s system to the Commission approved system, and controls around the integration. *This could be attached as an appendix to the ICS.*

Whilst the systems of the Foreign Business Associate may not be Alderney regulated, the Alderney licensee is ultimately responsible for customer verification, protection, etc. as per the operational guidelines to ensure the integrity of transactions, balances, deposits/refunds, etc. for those customers of the Foreign Business Associate, as well its own customers.

It is understood that Customer verification may not be explicitly done by the licensee for customers from Foreign Business Associates, as customer details are well guarded by the Foreign Business Associate owning the customer, but nonetheless the licensee is responsible for ensuring compliant procedures are in place with Foreign Business Associates to identify, age-verify and protect customers, as well as prevent fraud, collusion and money laundering. The various game networks are reliant on Foreign Business Associates’ customer ID checks and stringent customer monitoring to prevent fraud, collusion and charge-backs, in spite of external play by username and alias only.

T If the licensee connects with Foreign Business Associates, the licensee must ensure that Alderney branding is only present on those segments of the gambling operation which are directly regulated by the Commission. *For example, if the licensee registers customers and offers sportsbook opportunities to its customers under the Alderney license, it should brand the sportsbook opportunities with the Alderney branding and symbols. However, if the*

Alderney licensee refers its customers to play poker with a Foreign Business Associate not licensed in Alderney, the poker functionality shall not display any Alderney branding. See the Guideline for Terms and Conditions requirements in this circumstance.

It is common for the game managers of each Foreign Business Associate and the Licensee to share negative information on suspected fraudulent customers, including those customers found in networked gambling services.

4.7 eGambling requirements

4.7.1 Game Fairness

- i) **T** Games should not give the customer a false expectation of better odds by falsely representing any occurrence or event.
- ii) **T** Near-miss games that give the customer the perception that they almost won the top prize or which induce the customer to continue gambling (or similar function) are not permitted.
- iii) **T** Games that give the customer the perception that they have control over the game when they clearly do not (i.e. the game outcome is fully random) are not permitted.
- iv) **T** Each game should have associated rules and instructions of play.
- v) **T** The rules of the game should not be unfair or misleading.
- vi) **T** The rules of the game should be available online to the customer on the customer's media or end user device.
- vii) **G T** Game rules cannot be changed between a customer making a bet and the decision and payment of winnings for the bet. Game rules should not be changed during a customer's gaming session unless the licensee provides effective notification to the customer. Describe how the licensee addresses the risk of changing game rules while a customer is logged in.
- viii) **T** Games should operate and interact with the customer strictly in accordance with the published rules

4.7.2 Game Play Duration

T The default and minimum value for a game cycle is at least 3 seconds. *Multi-play/auto-play functions should include an element of customer control; e.g. wager limit, etc.*

4.7.3 No Adaptive Behaviour by Games

T A customer who plays a game represented as being based on a random event should have an equally likely chance of obtaining any possible combination every time a game is played.

It is improper for the return to player to be manipulated by the system or manual intervention to maintain a constant return to player.

4.7.4 No Forced Game Play

- i) **I** The customer should not be forced to play a game just by selecting that game. *The customer should have free access to review the game features, tables, rules, and help topics without being committed to laying a wager on the game.*
- ii) **I** The IGS must detect and reject repeated “play” messages that arise from impatient customers pressing “play” more than once while awaiting a response from the IGS.

4.8 Game Design

4.8.1 General

- i) **I** Game outcome should not be affected by the effective bandwidth, link utilisation, bit error rate or other characteristic of the communications channel between the IGS and the end customer device.
- ii) **I** Customer return for a game should be demonstrable as well as theoretical and should be of a similar return to those games typically found in land-based gambling venues/sites. *Notwithstanding, the Commission reserves the right to withhold game or game package approval if, in its judgment and having regard to all circumstances, the return to player is not considered to be fair and reasonable.*
- iii) **I** For games with a component of skill, the calculated and published customer return should represent a reasonably achievable strategy from an average customer.

4.8.2 I Instructions and Information

- i) Written messages shall be in English, or such language approved by the Commission, and be both grammatically and syntactically sound.
- ii) The following principles should be followed where games are provided in different language versions:
 - a) The base version language shall be English. *The Commission will evaluate each language version of the game based upon the English language rules and instructions for the base game.*
 - b) All game information should be provided to the customer in the language specified for that version; the game instructions should be the same across all language versions so that no one is advantaged or disadvantaged. *While each version should be consistent with the instructions for that language version, it will not be evaluated against the rules and instructions for the language of that version.*

- c) Each version should provide the same rates of return to the customer.
- iii) Game play and device usage instructions should be stated unambiguously and should not be misleading to the customer.
- iv) Game instructions and rules should be accessible and visible without the need for money to bet on the game.
- v) If random prizes are offered, the maximum value obtainable from the random prize should be indicated where the customer puts credits at risk.
- vi) If the value of the random prize depends on the amount of money wagered, this should be stated.
- vii) All statements on the artwork should be true.
- viii) The game instructions shall be clearly visible, or the means of displaying such instructions should be readily available at all times.
- ix) The name of the game being played should be clearly visible to the customer.
- x) Logos or copyright messages may be displayed.
- xi) Artwork graphics shall not be in any manner or form indecent, illegal or offensive (e.g. pornographic or offensive to religion or race).
- xii) For non-event based games, a pay scale on the artwork should correspond to the pay scale used in the mathematical treatise.
- xiii) The functions of all buttons represented on a screen should be clearly indicated. *These instructions are most logically located on the button.*
- xiv) All game instructions on the artwork should be easily interpreted, not ambiguous, and sufficient to explain all game rules. *Common sense applies.*

4.8.3 Game Disable

- i) **I** The IGS should provide a mechanism for the licensee to disable a game.
 - I** The IGS should be able to:
 - a) Disable or enable all gaming on command.
 - b) Disable or enable all gaming associated with a particular jurisdiction (e.g. country or territory within that country) on command.
 - c) Disable or enable individual games on command.
 - d) Disable or enable individual customer sessions on command.
 - I** An entry should be made to the audit log (including the reason for any disable) whenever the function is used.

- ii) **T** When a game is disabled, the customer should be permitted to conclude the game in play.
- iii) **T** When a game is disabled, the game is not to be accessible to a customer once the customer's game has concluded.
- iv) **T** If a valid multi-state game is terminated, the customer should be advised that this has occurred the next time they log on the system.
- v) **G T** The use of game disable or termination functions presents the risk of manipulation of the outcome of a game, and implicates principles of game fairness. Describe the audit programme, whether automated or manual, on the use of any game disable function. *Terminating a game that is in play is a serious matter; it is only to be used where there is known and demonstrable system problem. The licensee should include the reasons for the game disable event as part of the audit trail.*

If an immediate termination feature is used if a customer has a winning streak that is later proven to be attributable to chance and not malfunction or foul-play, the licensee may be fully liable for any payout or consequential damage. The termination of a valid game that is in play is permitted in a multi-state game (e.g. Draw Poker) where the customer has ended their session in the middle of a hand or a period of inactivity greater than 30 minutes has elapsed (during which time the licensee must make all reasonable efforts to advise the customer that their game should be finished).

- vi) **T** The IGS shall terminate any multistage game (e.g. video draw poker) upon the disable of the game. The customer cannot resume or conclude the game once it has been disabled.

4.8.4 Incomplete Games

- ii) **T** The IGS should provide a mechanism for a customer to complete an incomplete game before a customer is permitted to participate in any other game. Upon reconnection by the customer, the IGS is to present the customer the incomplete game for completion.
- iii) **T** Bets associated with a partially complete game that can be continued should be held in a separate account until the game completes. Customer accounts should reflect any funds held in the incomplete game account.
- iv) **T** Game rules should specify that unresolved bets placed but remaining undecided in incomplete games will become void after 90 days and will be forfeited to charity.
- v) **T** In the event that a game cannot be continued due to an IGS action, all bets should be returned to the customers of that game.

4.9 Requirements for Games against the House (not P2P)

- i) **I** All critical functions including the generation of the result of any game (and the return to the customer) should be generated by the IGS and independent of the end customer device. *This does not restrict the end customer device and the end customer participating in decision processes contributing to the result of the game and the return-to-customer (e.g. draw/hold decisions in draw poker or blackjack).*
- iii) **I** Customer return for a game should be demonstrable as well as theoretical and should be of a similar return to those games typically found in land-based gambling venues/sites. (Notwithstanding, the Commission reserves the right to withhold game or game package approval if, in its judgment and having regard to all circumstances, the return to player is not considered to be fair and reasonable).
- iv) **I** Where a game is represented or implied to be a simulation of a physical device, the behaviour of the simulation should be identical to the expected behaviour of the physical device.
 - a) *The visual representation of the device should correspond to the features of the physical device.*
 - b) *The probability of any event occurring should be as for the actual physical device E.g. the probability of obtaining a “six” on a simulated dice throw should be 1/6.*
 - c) *Where the game simulates multiple physical devices that would be expected to be independent of one another, each simulated device should be independent of the other simulated devices.*
 - d) *Where the game simulates physical devices that have no memory of previous events, the behaviour of the simulations should be independent of and not correlated with their previous behaviour so as to be non-adaptive and unpredictable in practice.*
- v) **I** Games that are not completely independent of customer’s history (e.g. metamorphic) should:
 - a) Display clearly to the customer which game rules apply to the current game state.
 - b) Display to the customer sufficient information to indicate the current status towards the triggering of the next metamorphosis of the game *E.g. if the game collects tokens, the number of tokens missing or the total number required to trigger the metamorphosis should be indicated along with the number of tokens collected at that point.*
 - c) Not adjust the likelihood of a metamorphosis occurring based on the history of prizes obtained in previous games; games should not adapt their theoretical return to player based on past payouts. *Exceptions to this control will be considered where precise payouts consistent with the documented RTP% would yield fractions of pence in the payout. In such games integer pence prizes may need to be rounded down and up from time-to-time. Such*

exceptions need to be justified and will be considered on a case-by-case basis.

- d) Not be misleading.
- vi) **T** Where hotlinks are used to supply game information, game play should not occur if the hot linked information is not available. The licensee should check the availability of this information with reasonable frequency.
- vii) **T** In the event that a game cannot be continued due to an IGS action, all bets should be returned to the customers of that game.
- viii) **T** The end customer device should not operate if sufficient resources are not available to it.
- ix) **T** If the IGS extends an invitation to play a particular game, it should accept all legitimate wagers (as defined by rules) for that game.
- x) **T** The customer should at all times be made aware of which game has been selected for play or is being played.
- xi) **T** It should generally not be possible to start a new game before the current play is completed and all relevant meters have been updated on the IGS and session balance, or if applicable, customer's total funds balance, has been updated. *Some exceptions may be granted in instances where, for example, the licensee elects to conduct off-line, manual consideration of large payouts, or if a customer chooses to continue gaming while a large payout is pending. Describe your exceptions in the ICS.*
- xii) **T** A "replay last game" facility should be provided either as a re-enactment or by description. The replay should clearly indicate that it is a replay of the previous game and provide the following information (as a minimum):
 - a) The date and time the game was played.
 - b) The display associated with the final position of the game, either graphically or via a clear text message.
 - c) Customer total funds applicable at start of play.
 - d) Total number of credits at the end of play.
 - e) Amount bet, including any multipliers. *E.g. number of lines played and credits per line.*
 - f) The total number of credits won associated with the prize resulting from the last play or the value in the customer's selected denomination for all prizes.
 - g) Details of any amount transferred to or from the session balance, but before the next play.
 - h) Any customer choices involved in play outcome.
 - i) Results of intermediate game phases such as gambles or feature games.

4.9.1 Multi-Customer Games

- ii) **I** Warn customers how bots can affect their play. *Multi-customer games with outcomes that can be affected through the use of automated end customer devices or ancillary computer systems (e.g. chess) should have prominent warnings so that customers can make an informed decision whether to participate.*
- iii) **I** The IGS should constantly monitor the effective response time to all end customer devices participating in a particular instance of multi-customer game and adjust response times to individual end customer devices to ensure game fairness if individual customers can benefit from different response times.
- iv) **I** Describe how the IGS manages communications failures with customers. *The IGS should ensure customer fairness in the event of a communication loss to one or more end customer devices during a multi-customer game. The IGS should implement some reasonable form of monitoring customer connection time-outs where a customer's entitlements may be affected by being excluded.*
- v) **I** The IGS should not provide for host initiated exclusions for games of this type. *If a particular customer is the "host" of a multi-customer table or game, then that customer may not have the ability to remove a customer from the table or game. This does not limit the "host's" ability to only allow other customers by invitation only.*
- vi) **I** Game rules should instruct the customer how the IGS processes situations where the IGS loses connectivity with the customer.

4.9.2 Multi-Operator Games

I Multi-operator games will be considered on a case-by-case basis.

4.10 Game Artwork (Information Displayed)

I Artwork is defined as anything that appears on the information display or computer screen. The combination of all relevant messages appearing anywhere on the artwork should comply with these standards. In addition, insofar as they are relevant and applicable, the Commission regulation for advertising standards will also apply.

4.10.1 Game Display Requirements

I The following information should be displayed to the customer on the location from which the customer places the wager, or readily accessible via a hotlink:

- a) Game name.
- b) Restrictions on play.
- c) Instructions on how to play, including a pay table for all prizes and special features.
- d) Current account balance displayed in currency (as opposed to "credits").
- e) Unit and total bet.
- f) For multi-customer games, whether the outcome can be affected if another participating end customer device is automated.

4.10.2 **I** Bet Display

- i) The bet denomination (and where applicable, the tokenisation) of the game should be clearly visible or easily deduced.
- ii) If a game uses tokens or tokenisation, the number of credits registered for each monetary unit for the current game should be displayed. *E.g. £1 buys 10 credits.*
- iii) The artwork should either state the maximum bet, the number of credits that can be bet per selected line and the number of possible lines available, or it should be possible to deduce this information from the game rules.
- iv) The minimum bet (if not easily deduced) should be readily available to the customer.

4.10.3 **I** Result Display

- i) The display of the result of a game outcome should not be misleading or deceptive to the customer. *E.g. the game should not improperly indicate a near-miss.*
- ii) The outcome of each game should be displayed for a reasonable length of time.
- iii) The nature of all prizes should be clearly indicated. *If a prize is displayed in currency format whilst another is displayed in credits, this should be stated to avoid confusing the customer.*
- iv) If the artwork contains game instructions specifying a maximum win, then it should be possible to win this amount from a single game (including features or other game options). *E.g. if the artwork states that £10,000 is the maximum prize for a game it should be possible to win £10,000 on that game.*
- v) To the extent that is practicable for the range of games offered, only one method of displaying win amounts may be used on any single game so as to avoid confusion.

4.11 Spinning Wheel (Reel) Requirements

4.11.1 **I** Symbol-Prize Relationship

The prizes for the winning patterns of each symbol should be placed in an area that visually belongs to the symbol. *This can be achieved with appropriate boxing or framing. The symbol or group of symbols should not invade the area that visually belongs to some other group of symbols if this could cause ambiguities as to which symbols are displayed on the paying line.*

4.11.2 **I** Number of Symbols required for a Prize

The number of symbols required to appear in the reels display window, in order to trigger each prize, should be indicated. *These numbers should line up with the prizes in order to avoid any ambiguity as to which prize corresponds to which number.*

4.11.3 **I** Shared Pay Scales

If some symbols share the same pay scale then they should be placed in an area that visually belongs to the pay scale. *This can be achieved with appropriate framing or boxing. The words “OF A KIND” or the equivalent should be placed near the number of symbols required to complete a winning pattern.*

4.11.4 **I** Mixed or Grouped Symbols

If prizes can be awarded for mixed or grouped symbols, the artwork should clearly specify the grouping of the symbols. *This can be accomplished either by placing the symbols in an area that clearly belongs to the pay scale and labelled with the term “Mixed” (or the equivalent) or by using a descriptive term that clearly defines the grouping. Care should be taken with such phrases as “Mixed Bars” or “Mixed Fruit” to ensure that there can be no misinterpretation.*

4.11.5 **I** Tabulated Prizes for Multiple Credits Staked

- i) If the prizes for multiple credits staked are tabulated, then the number of credits bet required for each prize should be placed in a location that clearly indicates which prizes apply to which multipliers. *Such numbers should have associated with them the word “credits” or equivalent (i.e. “credits per line” or “total credits bet”). Common tabulations display the number of credits bet as column headings and the number of symbols required as row headings.*
- ii) If partial tabulation exists, the artwork should clearly indicate that the prize for one credit (or other appropriate bet) staked is multiplied by the number of credits bet (per line). *Alternate game instructions should ensure that it is not possible to incorrectly assume that the tabulated prizes are further multiplied by credits bet.*
- iii) Where both multiplier instructions and tabulated prizes are displayed on artwork, there should be no confusion possible as to whether the multiplier applies to the tabulated prizes or not.

4.11.6 **I** Winning Line Pays (Paylines)

In games that permit multiple credits to be wagered on selected indicated lines, the artwork should either clearly state that the win(s) for each selected indicated line will be multiplied by the number of credits wagered on that line or show a tabulation of all possible wagers and their payouts.

4.11.7 **I** Scattered Pays

The artwork should clearly indicate that scattered pays are multiplied by the total number of credits staked. *This may be either via a message or a tabulation of all possible wagers and their payouts. If partial tabulation is used the artwork should clearly indicate that the prize for one credit (or other appropriate bet) staked is multiplied by the total number of credits bet. Alternate game instructions should ensure that it is not possible to incorrectly assume*

that the tabulated prizes are further multiplied by credits bet.

4.11.8 **Scatters**

The scatter symbol should be clearly labelled with the word “scatters” in the game instructions. *Further occurrences of the scatter symbol in the game instructions do not require further labelling.*

4.12 Positioning, Size, Colour and Shape

4.12.1 **One Symbol/Prize Instructions**

Game instructions that belong to only one symbol/prize or a group of symbols/prizes should be clearly associated with the symbol/prize or group of symbols/prizes. *This may be achieved with appropriate framing or boxing. Additional wording such as “these symbols” could also be used.*

4.12.2 **Global Instructions**

Game instructions that refer to all symbols/prizes should read “ALL” or equivalent. *If some symbols/prizes are excluded from these instructions, this should be indicated with wording such as “EXCEPT” or equivalent.*

4.12.3 **Colour of Messages**

Game instructions should be printed in a colour that contrasts with the background colour to ensure that all instructions are clearly readable. *For example black print on dark purple background is not acceptable as it can create confusion.*

4.12.4 **Shape of Symbols**

Symbols that are not characters or numbers should have the same shape throughout all artwork, except while animation is in progress. *Any symbol that changes shape or colour during an animation process should not appear in a way that might misrepresent another symbol in the pay table.*

4.12.5 **Reference to Symbols**

If game instructions refer to a particular symbol and the written name for the symbol may be mistaken for another symbol or may imply other characteristics (e.g. “Pair of Sunglasses” might imply two sunglass symbols) the visual display of the instructions should clearly indicate to which symbol the instruction is referred. *This may be achieved by displaying the actual symbol, or employing a more clearly written description, or both.*

4.13 Substitutes

4.13.1 **Substitute Symbols**

The artwork should clearly state which symbols may act as a substitute, in which winning patterns, for which symbols and any conditions that may apply. *This may be permitted in the following manner:*

- a) *An indication that the substitute(s) match “ALL” symbols.*
- b) *Provide a list of symbols that the substitute does match.*
- c) *Provide a list, using the term “EXCEPT”, which the substitute does not match.*
- d) *Provide a statement clearly describing groups of symbols that are substituted.*

4.13.2 **Substitutes and Coinciding Wins**

Where a game’s rules provide for both coinciding wins being paid on a selected lit line and the use of one or more substitute symbols, the game rules should specifically resolve the following circumstances:

- a) If the substitute symbols on their own are awarded a prize and concurrently may substitute for some other symbol (e.g. Sub Sub Sub Queen Queen pays both 3 Subs and 5 Queens). It is not required to state the reverse case where the highest prize only is paid.
- b) If multiple patterns that use substitutes exist on the selected lit line (for example Queen Queen Sub Jack Jack for a game playing Left to Right and Right to Left), and the game only pays one of these combinations. It is not required to state the reverse case where both prizes are paid.
- c) If substitution occurs for patterns where none of the substituted symbols are displayed (e.g. Sub Sub Sub Sub Sub pays for 5 Kings and 5 Queens, etc.).

4.13.3 **Substitutes Participating in Scattered Wins**

The artwork should contain all rules relative to substitute symbols participating in scattered wins. The following should be addressed:

- a) If applicable, the artwork should specifically state when the term “substitutes for all symbols” is used but the substitute symbol does not participate in scattered wins (e.g. “<sub> substitutes for all symbols except scattered <scatter symbol>”).
- b) The artwork should state payout rules for coinciding wins when there are multiple scattered win symbols and substitute symbols participate, including the situation where one or more scattered symbols may not appear.

4.13.4 **Unusual Substitutes**

The artwork should specify if there is a feature where a symbol may substitute in a winning pattern when the symbol is not on a pay line.

4.13.5 **Change of Substitutes**

The artwork should clearly state if the game provides for a change of substitutes, (e.g. during free games) and any special conditions that may apply.

4.13.6 **I** Substitutes and Extra Pays

- i) The artwork should provide a clear explanation if the game provides for extra pays, or multipliers apply when substitutes participate in winning patterns.
- ii) The artwork should display the multiplication factor or a tabulation of all prizes with possible multipliers if the game provides for multipliers to apply when substitutes participate in winning patterns.
- iii) The artwork should explain the handling of winning patterns where multiple substitutes participate, if extra pays or multipliers apply.

4.14 Winning Patterns

4.14.1 **I** Patterns

- i) All winning patterns relevant to the particular point in time of a game should be clearly displayed or accessible on some form of artwork. *All undefined patterns are assumed to be non-winning.*
- ii) Complicated winning patterns should be clearly explained. *Pictorial representations might best accomplish this objective.*

4.14.2 **I** Scatters Patterns

The artwork should display all winning scatter patterns.

4.14.3 **I** Pictorial Winning Patterns

The artwork should clearly communicate generic winning patterns. *Graphical representation of the order/position in which the winning symbols are to appear, without the aid of a written explanation, can be supplemented with numbers to indicate how many correct symbols each pattern corresponds to. Unusual winning patterns, e.g. X_X_x_X_X, should be positioned in proximity to the prize.*

4.14.4 **I** Difficult Patterns

The artwork should clearly explain winning patterns that are not “left to right” or “right to left” or “any.” *Pictorial representations might best accomplish this objective.*

4.14.5 **I** Selected Line Wins

The artwork should appropriately state that all wins occur on selected lines (and if applicable “except scatters”), or equivalent.

4.14.6 **I** Extra Lines

If it is possible to bet on multiple possible lines and it is not clearly obvious which reel

positions are part of each of the possible lines, then artwork should clearly display the additional lines and label them appropriately. *The additional lines should either be shown on static artwork, or be available for display on a help or pay table screen, or permanently displayed on all game play screens, in a location separate from the actual reels. This requirement applies to all standard five-reel games where lines greater than five should be schematised on the artwork and appropriately labelled.*

4.14.7 **Displaying Pay Lines**

Upon a win, the game shall clearly indicate all pay lines. *If it is possible to bet more than 5 lines, then upon a win for video machines, the pay lines should be indicated in a manner such that all pay lines can be clearly identified by the customer.*

4.14.8 **Coinciding Winner Rules**

The artwork should clearly state the rules for payments of prizes where multiple wins are possible.

The following should be addressed:

- i) A description of what patterns will be paid when a pay line may be interpreted to have more than one individual winning pattern. *Refer also to Substitutes and Coinciding wins, above.*
- ii) Where the game supports multiple pay lines, the artwork should display a message indicating wins on different pay lines are added, or the equivalent.
- iii) Where the game supports scatters, the artwork should display a message indicating that scattered wins are added to pay line wins, or equivalent, if this is the rule of the game.
- iv) The artwork should clearly communicate the treatment of coinciding scattered wins with respect to other possible scattered wins. *For example, the artwork should state whether combinations of scattered symbols pay all possible prizes or only the highest prize.*
- v) Where mixed symbol prizes are paid, the artwork should describe the treatment of prizes that may be interpreted to be both mixed and straight winners.

4.14.9 **Miscellaneous Symbols**

If a symbol that can form part of a winning combination is not on all reels, the artwork should identify which reels the symbol appears on.

4.15 Features

4.15.1 **Feature Trigger Patterns**

The artwork should specify the trigger pattern(s) and all other conditions that should occur, in order to trigger the feature.

4.15.2 **I** Feature Re-Trigger

The artwork is to describe the action of the game (e.g. further triggers, bonus payout and/or no further trigger) when feature trigger patterns occur during the feature (e.g. free games).

4.15.3 **I** Tokens Accumulation

For games with rules which allow for the accumulation of tokens to qualify for a feature or multiple features to be triggered or game metamorphosis, the artwork should clearly show:

- i) The definition of the event that leads to the accumulation of tokens.
- ii) A description of how many tokens are accumulated with each occurrence of the event.
- iii) A description of how many tokens are required to trigger the feature.
- iv) An indication of how many tokens are currently accumulated.
- v) If sub-tokens accumulate to tokens, a description of the number of sub-tokens needed to accumulate a token, and the number of sub-tokens and tokens currently accumulated.
- vi) If the accumulation of tokens may lead to free games, the number of possible lines and credits per line that are to be wagered during the free games
- vii) Game rules when further tokens are not accumulated during the feature sequence for events which normally would qualify to earn tokens.

4.15.4 **I** Free Games

The artwork should explain all rules and functionality relative to free games. Topics include:

- i) Special rules not addressed elsewhere.
- ii) Additional payouts for non-winners during the free game sequences, including whether this payout is to be multiplied by credits staked per line or total credits staked.
- iii) Any multipliers for prizes, special prizes, substitutes.
- iv) The display of an accumulated win amount during each stage of the free games if the gaming machine does not directly add wins to the credit meter.
- v) If more than one free game is offered, the number of free games that have transpired or the number remaining (or the total number).
- vi) Appropriate game instructions defining the number of possible lines and credits per line that are wagered during the free games.

4.15.5 **I** Re-Spins/Held Reels

The artwork for games where one or more reels are automatically “held” for one or more “re-spins” should address:

- i) Which reels are to be held (e.g. first two reels).
- ii) Whether held reels occur on winning or non-winning patterns.
- iii) The specific line where the trigger combination should occur, if any. *E.g. “ON THE CENTRE LINE”, or “Scattered,” depending upon the actual requirement of the game.*

- iv) If a partial number of reels (e.g. 2, 3 or 4 reels) are held for some criteria, what happens when the criteria forms part of a larger pattern. *E.g. what happens when all 5 reels meet said requirement.*
- v) If the trigger is a winning pattern and the pattern does not pay during re-spins.
- vi) The rules for extensions or termination of the re-spin sequences including additional held reels. *E.g. when there are improvements to the original held combination(s).*
- vii) If more than one re-spin is offered, the display of the number of re-spins that has occurred or the number remaining (or the total number).

4.15.6 Bonus Prizes

This section refers to games where one or more bonus prizes may be paid to the customer during the feature sequence. Generally, bonus prizes are awarded as a result of some second (or subsequent) screen animation.

The artwork should address the following topics:

- i) Criteria for both the initial entry and entry to further bonus features.
- ii) All instructions and customer choices for the bonus feature.
- iii) A display of total amounts won should be available at the end of each stage of the game, including on second screen animations. *This is to include display of bonus prizes won in multiple sequence bonus features.*
- iv) If bonus prizes are multiplied, whether they are multiplied by credits staked per line or total, where appropriate.

4.15.7 Metamorphic Sequences

This section refers to metamorphic games where the customer still “pays” for the sequence game(s).

The artwork should address the following topics:

- i) All instructions for the game, including the differences between the main game and the metamorphic game. *E.g. <character> appearing anywhere in window pays the original prize which started the feature.*
- ii) Whether the number of lines and/or number of credits wagered during the metamorphic sequence may not exceed the wager of the game or games which triggered the feature, according to the rule of the feature.
- iii) Any special prizes, substitutes, multipliers or similar rules during the metamorphic sequence.
- iv) If the metamorphic sequence consists of more than one feature game, the number of games in the metamorphic sequence that has occurred or the number remaining (or the total number).

4.15.8 Held Reel Games

This section refers to spinning reel variations with Draw Poker characteristics where the Customer may hold one or more reels for a second chance to improve the hand.

The artwork should address the following:

- i) Whether the customer is able to hold or release reels.
- ii) Whether the customer is required to wager additional credits to participate in the hold reels phase of the game.
- iii) Identifying or highlighting held and non-held reels, including recommended reels, at all times.
- iv) The method for changing holds.

4.16 Keno and Bingo Artwork Requirements

I This section refers to games such as Keno and Bingo, where balls are drawn from a simulated cage (or the equivalent), and a customer tries to pick in advance which of these balls are selected.

The artwork should address the following topics:

- i) A tabulated display of the scorecard, which shows all winning payouts, when no game is in progress.
- ii) Any special rules, which are outside the standard game of Keno or Bingo.
- iii) The identification of all of the customer's selections.
- iv) The identification of all balls drawn.
- v) Highlighting the balls drawn which match the customer's selections (i.e. "hits").
- vi) The description of special hits, and if any, they are to be highlighted.
- vii) How many spots were selected and how many hits.
- viii) Rules for purchase of additional features of the game, if any.
- ix) How the customer makes or changes to selections, including how:
 - a) Individual numbers are picked.
 - b) Individual numbers are cleared.
 - c) All selections are cleared.

4.17 Card Game Artwork Requirements

I This section refers to games which involve the simulated dealing of cards from one or more decks.

- i) Card faces are to clearly display the card value. *E.g. it should be obvious which is a Jack and which is Queen.*
- ii) Card faces are to clearly indicate the suit. Hearts and Diamonds should be red; Clubs and Spades should be black.
- iii) Jokers are to be distinguishable from all other cards.
- iv) Whether more than one deck of cards is used in the game.
- v) How often the deck is to be shuffled, if the rules of the game do not shuffle the deck after every game. *In this instance, the artwork should indicate when shuffles actually do occur.*

- vi) A pay-table, which shows all winning hands and their payouts, when no game is in progress.

4.18 **I** Gamble Option Artwork Standards

The following specifications apply to artwork for all games which offer a gamble option. *The most common use is for “Double-up,” where a multiplier of two (2) is sought, but also may apply to other multipliers (e.g. Triple-up) or a selection of multipliers.* The artwork should address the following topics:

4.18.1 **I** Limits

The gamble prize limit (if applicable) for a particular game and the maximum number of gambles available. *If wording indicating the maximum prize that can be won exists, then it should be possible to win this prize. The customer should not be offered an option to gamble when the prize may exceed the prize limit.*

4.18.2 **I** Automatic Exit

The rules governing when the gamble exit option is executed automatically before reaching the maximum number of gambles available.

4.18.3 **I** References

All references to gamble should use words such as “gamble” or “double up” which cannot be misinterpreted to indicate some other feature.

4.18.4 **I** Conditions

Conditions in which the gamble option cannot be accessed.

4.18.5 **I** Choices of Multipliers

- i) The range of choices/payouts if a gamble game offers a choice of multipliers.
- ii) The display of the multiplier once the customer has selected a multiplier.

4.19 **I** Roulette

If standard Roulette is simulated, the following artwork standards apply. Variations will be considered on a case by case basis:

- i) Each “Zero” used should be uniquely labelled (e.g. “0”, “00”, “000”).
- ii) The simulated Roulette wheel should be in the identical format as a standard casino wheel (including colours of landing locations and position of numbers) with the exception of the position of “Zeroes,” if more than one exists, in which case the “Zeroes” may be placed arbitrarily.
- iii) A pay table or description of all available wagers and their payouts should be

- accessible while not in game play.
- iv) The method of selecting individual wagers.
- v) The display of all wagers selected by the Customer.
- vi) The simulated ball spin should result in a location that unambiguously determines the winning number.

4.20 **I** Dice Games

This section refers to standard Dice games; the following artwork standards apply. Variations will be considered on a case-by-case basis.

- i) Each face should show the number of spots.
- ii) Simulated die should be of the same layout as standard physical die. *The 1 and 6, 2 and 5, 3 and 4 respectively should be on opposite faces.*
- iii) It should be obvious which is the up face on each die after the dice are thrown.
- iv) Display of the result of each die.
- v) Each wagering option available, and its meaning. *For example, the artwork should explain craps wagers "Field" and "Hardway."*
- vi) The display of all possible wagering options available and obtainable at any point in time.
- vii) A pay table or description of all available wagers and their payouts should be accessible while not in game play.

4.21 **I** Simulated Wagering

This section refers to simulated racing games; the following artwork standards apply:

- i) All participants in the race should have characteristics that make it unique in appearance (e.g. number, jockey colours).
- ii) The result of the race should be obvious and not open to misinterpretation.
- iii) If prizes are to be paid for combinations involving runners other than just the first place finisher, the display of the order of the place getters that can be involved with these prizes. *E.g. Result 8-4-7.*
- iv) Each meaningful result position should be available for display in all last game replays.
- v) The rules for alternative wagering options (e.g. quinella), and the expected payouts.
- vi) A pay table or description of all available wagers and their payouts should be accessible while not in game play.

4.22 **I** Scratch Ticket

This section refers to games which simulate a lottery scratch tickets or similar games. The following artwork standards apply:

- i) A precise definition of which customer options should be taken to complete the game.
- ii) Details of how payouts are won and their amounts. *E.g. three matching scratched symbols win that prize.*
- iii) All rules for symbols that may substitute in winning patterns.

- iv) A pay table or description of all available wagers and their payouts should be accessible while not in game play.

4.23 **I** Video Poker

The artwork should address the following topics:

- i) Provide clear indication if Stud Poker rules apply. *Common Draw Poker is assumed, if nothing is stated.*
- ii) The definition of winning combinations outside the scope of standard Poker. *E.g. Royal Flush without Wild Cards, Four of a kind “Jacks or better”, 4 Deuces (when Deuces are wild), etc.*
- iii) All special rules and customer options outside the scope of common Poker.
- iv) Wild card rules *E.g. Jokers Wild or Deuces Wild.*
- v) The display of Held and non-held cards, including recommended holds (if implemented), in Draw Poker or the equivalents, and the method for changing Holds.
- vi) Winning hands win category (e.g. “Full House”).

4.24 **I** Blackjack

The artwork should address the following topics:

- i) Whether the game is not the standard variation, and if so, which rules apply. *Standard variation blackjack is assumed, if nothing is stated.*
- ii) Insurance rules, if Insurance is available.
- iii) Pair Split rules, including:
 - a) Split aces have only one card dealt to each ace, if this is the game rule.
 - b) Further splits, if available.
 - c) Double-down after splits, if available.
- iv) Double-down rules, including limitations of which totals may allow a double down to be played.
- v) The display of the current total of all hands, including the Dealer’s total, during and for a reasonable time at the end of the game. *The term “Bust” or the equivalent may be used to indicate a hand whose total has exceeded 21.*
- vi) Dealer play rules, including special treatment of a soft 17 count, if any.
- vii) Any limits on the number of cards that may be drawn by Customer and/or Dealer, including winners declared (if any) when the limit is reached. *E.g. Five Under wins.*

- viii) Surrender Rules, if any.
- ix) Whether the customer loses on “Dealer Push.”
- x) Winning hands win category. *E.g. “Natural,” “Blackjack,” “Six Under,” or “Push.”*
- xi) If Pair Splits have occurred, the display for each hand (total points, resultant win or loss category, amount won, amount wagered).
- xii) Special rules, if any.
- xiii) The display of all customer options that are available at any point in time.

4.28 Peer to Peer (P2P) Games

v) **Customer Management**

T The licensee shall not allow a customer to play against himself under circumstances where the customer can affect the outcome of the game.

G T Describe how the IGS addresses customer disconnections during gaming sessions. *It is possible, for many reasons, for the customer to become disconnected from the networked server during a game (e.g. internet connection outage, PC crash, etc.). This scenario should not disadvantage the customer unnecessarily. For example, with poker, if the client software has lost contact, it is common practice for operator systems to have the customer go ‘all-in’ if required to ‘call.’*

vii) **Rake and Fees**

Describe your rake, vigorish, or percentage, and other gambling service fees (“rake”), and how this description is provided to the customer.

T The licensee shall clearly display and explain to the customer the amount of the rake taken by the licensee. *Any variation in the rake amount based on the table, limit amount, number of customers, or pot-amount should be clearly displayed, as well as any additional fees (tournament fees, special entry fees, etc.).*

4.29 Jackpots and Promotional Jackpots

4.29.1 Jackpot Fairness

- ii) **T** If a cap is established on any jackpot, all additional contributions once that cap is reached are to be credited to a Diversion Pool (discussed further below).
- iii) **T** The minimum return represented to the customer should be met regardless of the number of betting units calculated.

- iv) **I** If a minimum bet amount exists in order for a customer to win a linked jackpot, then the base game (excluding the jackpot) should meet the minimum customer return.
- v) **I** All customers contributing to the prize should be eligible to win the jackpot whilst they are playing that game.
- vi) **I** The probability of winning the jackpot should be linearly proportional to the contribution.

4.29.3 Notification of the Jackpot Amount

- i) **I** The current jackpot amount should be displayed on all end customer devices participating in the Jackpot. This display should be updated on all participating end customer devices at least every 30 seconds.
It is accepted that, depending upon the medium, communication delays are variable and beyond the knowledge or control of the licensee. Server-to-client delays will vary from customer to customer and from message to message. Consequently the period necessary to broadcast to all registered customers, the current state of any given jackpot should be a consideration. For example, the greater the window, the greater the potential for “simultaneous” wins before a jackpot is reset (multi-state games introduce another level of complexity).
- ii) **I** A winning customer should be notified of a jackpot win by the end of game play.
- iii) **I** Whenever a jackpot is won, the notification of the jackpot being won should be delivered to all active end user devices and the jackpot amount should be displayed on all end customer devices participating in the jackpot at the time of the jackpot win.

4.29.4 Jackpot Game Rules

I The rules of the jackpot game should:

- i) inform all jackpot game customers how they can be eligible to win the jackpot.
- ii) describe how the jackpot is funded and determined, and clearly specify how the contributions to the jackpot pool are made (based on turnover, net balance of each licensee contributing to a multi-operator pool, etc.).
- iii) inform the customers of the imperfections of the communications medium for the game, and how this affects them.
- iv) inform the customers of how the licensee will address and resolve apparent simultaneous and multiple wins.

- v) inform the customer how the licensee can discontinue or terminate a game. *Include planned terminations, such as jackpots offered for a specific period of time, and promotional jackpots.*

4.29.5 Jackpot Parameter Changes

Once put into play, jackpots should not be altered. Describe the controls which safeguard jackpot pools from alteration. *The licensee should request and receive written prior approval from the Commission, if a jackpot pool is to be discontinued, converted, or combined into another jackpot pool. The licensee will have to ultimately resolve how to distribute unawarded jackpot pool funds. The primary consideration will be that customers should have an equal or better chance of winning the jackpot funds in the new scheme for distribution.*

I Once a Jackpot has commenced, parameter changes should not take effect immediately, rather they should be saved to apply after that Jackpot is next won. *These are ‘pending’ parameters.*

4.29.7 Partial Jackpot Redirection

I Diversion Pool schemes, where a portion of the jackpot contributions are redirected to another pool so that when the jackpot is won, the Diversion Pool is added to the seed of the next jackpot, are acceptable. The following requirements apply to such schemes:

- i) A jackpot redirection scheme should not have a mathematical expectation of the diversion pool of infinity. *This means that the percentage that goes to any diversion pool is dealt with correctly in the mathematics of the jackpot.*
- ii) Where a Diversion Pool is used to fund a “minimum or start-up level” the minimum jackpot amount is deemed to be zero for the purposes of calculations of expected customer return; i.e. in calculating customer return the start-up prize can only be counted once.
- iii) Diversion pools should not be capped.

4.29.8 Jackpot Financial Liability Documentation

I The IGS should store and maintain the following software meters as a minimum:

- i) Total amount played for jackpots.
- ii) Total amount of jackpots won.
- iii) Total jackpot contributions made (includes any diverted amounts).
- iv) Total jackpot contributions won.
- v) Current amount for each jackpot. and
- vi) Current value of jackpot contributions diverted.

I If a jackpot is determined by increments of individual customers’ wages, the receipt and processing of increments from all end customer devices, whether configured as a single

controller or a system of master and slave controllers, should be fair and accurate.

4.29.9 Jackpot Shutdown

I There are instances where a jackpot should be “shut down.” A jackpot shut down requires the following actions:

- i) Clear indication should be given to customers that the jackpot is not operating (e.g. by displaying “Jackpot Closed” on end customer devices).
- ii) It should not be possible for the jackpot to be won while in the shut down state.
- iii) If the jackpot operates in conjunction with another game (e.g. base game), and the customer return requirement is only met when jackpot contributions are included, the base game may only be offered when the jackpot is available.

Re-activation of the jackpot from the shutdown state should return the jackpot with the identical parameters, including jackpot value, and hidden win amount for mystery jackpots, as existed immediately before the shutdown.

4.29.10 Jackpot Recovery

I To enable recovery of the current value of the jackpot amount in the case of an IGS failure, either:

- i) The current value of the progressive amount should be stored in at least two physically separate devices, or
- ii) The licensee should be able to accurately calculate the current value of the progressive amount from other available metering information that is not stored in the same system as the progressive amount.

4.29.12 Jackpot Controller

I The jackpot controller is deemed to be part of the IGS even if it is a physically separate controller.

The jackpot controller shall:

- i) **I** Register that a jackpot has been won,
- ii) **I** Announce the win on the displays of all participating and customer devices, and
- iii) **I** Reset the progressive meters upon a win event.

I The jackpot controller should ensure that hits registered within a defined minimum time increment are considered as simultaneous wins.

I The minimum time increment (jackpot reset period) is not less than the longest time taken

to:

- i) Register that the jackpot has been won;
- ii) Announce the win on all participating end customer devices; and
- iii) Reset the progressive meter or meters.

1 Where a “master controller” employs “slave controllers” to control a jackpot (e.g. multi-operator jackpot) the following requirements apply:

- i) All slave controllers are to be time synchronised with the master controller.
- ii) The master controller is to be time synchronised with the IGS.
- iii) Game result jackpot win events should be time stamped.

SECTION 5: COMPUTER CONTROLS

5.1 System Operations

Describe the following elements of the operation:

- iv) **1** Provide a schematic of all servers used in the gaming process, including customer services, development servers, databases, credit-card and banking gateways, SANs, NAS, mirrored devices and backups etc., together with a description of their function. *This might best be accomplished as an appendix to the ICS.*
- v) **1** Provide a network diagram and IP addressing information showing all relevant interconnected locations, with details of equipment at each site. *E.g. routers, switches, firewalls, intrusion detection, load balancers, network monitoring, mobile WAP/SMS gateways, etc. This might best be accomplished as an appendix to the ICS.*

5.2 Security

5.2.12 **1** Architectural/Physical Security

- i) All computer systems should physically reside in a data centre which has a level of security commensurate with the risk. Describe the physical premises (or cross reference to other ICS sections where the premises are already described), describe the security risks presented by those particular circumstances, and describe the controls designed to mitigate those risks. *The actual gaming system will be housed in an approved hosting facility, and that facility should be simply described here. Describe also the facility or facilities where any systems that are ancillary to the gaming system are secured (servers related to customer service where sensitive data may be stored, for example).*
- ii) Logical and physical access to the primary DNS server should be restricted to authorised personnel.
- iii) The test environment should be physically isolated from the production system.

5.2.13 Application Level Firewalls

- ii) **1** A device in the same broadcast domain as the IGS hosts should not have a facility that allows an alternate network path to be established that bypasses the firewall.

Examples of prohibited facilities are:

- a) *An operator PC equipped with a modem.*
- b) *An operator PC with a connection to the IGS Virtual local area network (VLAN) and a connection to the corporate VLAN.*

- iii) **I** The firewall computer should be a separate computer system with the following characteristics:
 - a) Only firewall-related applications may reside on the firewall computer.
 - b) Only a limited number of accounts may be present on the firewall. *E.g. system administrators only.*
- iv) **I** The firewall should reject all data packets addressed to the firewall if they arrive on interfaces to networks that are outside the baseline envelope. *This is to restrict access to the firewall to authorised workstations inside the baseline envelope.*
- v) **I** The firewall should reject all connections except those that have been specifically approved.
- vi) **I** The firewall should maintain an audit log of all changes to parameters that affect what connections are permitted through the firewall.
- vii) **I** The firewall should maintain an audit log of all successful and unsuccessful connection attempts to or through itself.
- viii) **I** The firewall should disable all communications if the audit log becomes full.

5.2.14 **I** Self Monitoring

IGSs should implement self-monitoring of critical components. *E.g. central hosts, network devices, firewalls, links to third parties. Mechanisms should include network and host intrusion detection and logs, operating system logs, firewall logs, etc. The intrusion detection system shall not be accessible on the network except from its console.*

5.3 Software Development, Testing, Maintenance and Approval

5.3.1 Source Code

- ii) **I** The software versions should be stated in the source code control system.
- iii) **I** *In accordance with good industry practice, the following software identification should appear in all source code modules (or be available in the source control software) altered or created and submitted for evaluation/approval. Failure to comply may lead to increased testing costs.*
 - a) *Module name,*
 - b) *Version number,*
 - c) *Revision number,*
 - d) *Brief description of functions performed,*
 - e) *Edit history, who, why and when (of changes made after this date).*
- iv) **I** The licensee should take a snapshot / hash of the system (including database

structure) after supervised installation of all software, in order to facilitate subsequent system identification and auditing.

5.4 Equipment

5.4.1 Location

I All equipment associated with eGambling should:

- a) Be dedicated so that it stands alone from the licensees' other equipment, and
- b) Remain under the full control of the licensee at all times.

The licensee must allow the Commission unrestricted access to monitor its operations. (R371).

GI If the licensee offers gambling based on a live event, that event need not be conducted in the Bailiwick of Guernsey. However, the licensee must demonstrate that the event is properly regulated or controlled in the jurisdiction or origin, and the wagers are processed on electronic gambling equipment in approved premises under the Commission's jurisdiction.

5.4.2 Hardware Reliability

The hardware platform should be demonstrably reliable, secure and stable. **I** Describe the licensee's hardware failure diagnosis and remedy programme. *If a critical component fails self-monitoring tests, and cannot be corrected within defined parameters, it should be immediately taken out of service. The component should not be returned to service until there is reasonable evidence that the fault has been rectified.*

- i) Describe the licensee's scheduled hardware replacement programme.
- ii) Describe the licensee's production hardware rotation programme. *It is recommended that hot standby components be rotated regularly into production use to ensure they are up to date and in working order.*

5.4.3 Operating System Reliability

- ii) **I** Operating system reliability will be tested during evaluation.

5.5 Network

5.5.1 Network power supply

I Uninterruptible Power Supply (UPS) equipment should support hotline terminal, operator consoles and all intermediate equipment which connect devices to the IGS. *E.g. routers, bridges, firewalls, Terminal Servers, Terminal Adaptors, Modems, Microwave radio equipment, etc.*

I The IGS should be able to perform an orderly shutdown in the event of a power-failure and not restart automatically on power up.

5.5.2 Self Monitoring

I The system should be able to recover from unexpected restarts of its central computers or any of its other critical components.

5.5.3 Accounting of Master Resets

I The IGS should be able to identify and properly handle the situation where master resets have occurred on other computer systems that affect game outcome, win amount or metering, with no loss of transaction information, or system corruption.

5.7 Communication

5.7.1 Repeat Play

I The communications protocol should detect and reject repeated “play” messages that arise from communications errors.

5.7.2 Message Authentication

I Message authentication should be used with critical message types, such as jackpot wins and PIN transmissions, in order to verify the correct receipt of the message by the game server, client, host or related equipment.

5.7.3 High Level Protocol

- i) **I** All protocols should use communication techniques that employ widely accepted error detection and / or recovery mechanisms.
- ii) **I** The high level protocol should employ techniques (e.g. end to end acknowledgement) such that it will not lose messages, or packets, even when one end or the other restarts.
- iii) **I** The higher-level protocol should employ techniques (e.g. transmission numbers) such that repeated messages are identified and discarded, even when one end or the other restarts.
- iv) **I** These requirements do not apply to unsecured messages such as broadcast messages.

5.7.4 Time Stamps

- i) **I** The high level protocol should include a provision for the transmitting system (e.g. IGS or end customer device) to insert a local timestamp in every message it

sends. *This timestamp will assist in claims of equipment malfunction involving run away hardware or software.*

- ii) **T** The high level protocol should include a provision for the transmitting system (e.g. IGS or end customer device) to insert a local timestamp taken at the time the last valid high-level message was received.
- iii) **T** All time stamping should be in a single time. If not Universal Time (UT) then the difference to UT should be apparent.

5.7.5 High Level Interface with Lower Level Protocols

T System applications should be able to parse all messages in accordance with design to ensure messages are communicated in a planned, approved, reliable and secure manner.

5.7.6 User Inactivity Timeout

- i) **T** Describe the connectivity / inactivity functions of the system. *If the system is not capable of polling to confirm connection, it should implement inactivity timeouts.*
- ii) **T** If a session is terminated or is broken, the end customer device should notify the customer of session termination. *No further game play is permitted until the IGS and the end customer device establish a new session.*

5.7.7 Requirement for Authentication

T The IGS should authenticate all people (e.g. customers, computer operators, maintenance service providers, Commission officers and representatives) and computer systems (e.g. jackpot controllers, financial gateway systems, certification authority systems) that connect to the IGS. *People who connect to the IGS for purposes other than gambling do not need to be authenticated.*

- i) **T** The IGS should authenticate itself to all people and computer systems that establish a connection.
- ii) **T** All transactions involving third party organisations should be logged to an appropriate audit file.

5.8 Database and Information

5.8.1 Data Recovery

T In the event of a failure, the IGS should be able to recover all critical information from the time of the last backup to the point in time at which the system failure occurred (no time limit is specified).

T When two or more computer systems are linked, the restart/recovery of either computer

system should not adversely affect the process of all wagering activities between the two systems. *E.g. wagering transactions are not to be lost or duplicated because of recovery of one system or the other.*

T The IGS shall treat all transactions involving monies as vital information to be recovered in the event of a failure.

T The IGS shall treat records of any game that fails to complete and the reason why the game failed to complete as vital information to be recovered by the IGS in the event of a failure.

5.8.2 Recordable Events

T The IGS should keep records of events, including but not limited to:

- i) Customer registration or customer's account creation and deactivation.
- ii) Changes to customer's registration (e.g. address) or account details (e.g. balance, customer configurable parameters).
- iii) Changes made to game parameters.
- iv) Changes made to jackpot parameters.
- v) New jackpot created.
- vi) Jackpot retired.
- vii) Large wins.
- viii) Jackpot wins.
- ix) Any large transfer of funds.
- x) Loss of communication with an end customer device, as signified by no response to successive polls (intra-net gambling) or a time out.
- xi) Customer exclusion (including exclusion, requests to lift exclusion, and actual lifting of exclusion).

5.8.3 Significant Events

T The IGS should be able to receive and store all significant events from external computer systems that affect game outcome or win amounts.

- i) **T** External computer systems that affect game outcome or win amounts should maintain a log of date and time stamped significant events if they are not transferred immediately to the IGS.
- ii) **T** The IGS should be able to provide a means to view significant events including the ability to search for particular event types.
- iii) **T** The IGS should be able to prioritise events (log, alarm or disable).

5.8.4 Information to be Maintained

G T The IGS should retain information sufficient to continue a partially complete game for

a defined period. Define the period and detail the risk assessment supporting it. The IGS shall treat this information as vital information to be recovered by the IGS in the event of a failure. *The information required to complete an incomplete game is different from the circumstantial information about the incomplete game and how it was resolved.*

- i) The licensee should retain gambling information (either archived or on-line as determined by the licensee) for a period of six years.
- ii) **¶** Information to be maintained by the IGS for each customer should include:
 - i. Customer details (including verification method).
 - ii. Account details and balance.
 - iii. Maximum bet levels and exclusion status.
 - iv. Previous accounts and reason for deactivation.
 - v. Session information.
- iii) **¶** Session information to be maintained by the IGS should include:
 - i. Customer ID.
 - ii. Session start and end time.
 - iii. Customer device details.
 - iv. Total monies wagered for session.
 - v. Total monies won for session.
 - vi. Funds added to account for session (time stamped).
 - vii. Funds withdrawn from account for session (time stamped).
 - viii. Time of last successful poll for session.
 - ix. Reason for session termination.
 - x. Game information for session.
- iv) **¶** Game information to be maintained by the IGS should include:
 - i. Customer ID.
 - ii. Game identifier and version.
 - iii. Game play information for all games played.
- v) **¶** Game play information to be maintained by the IGS should include:
 - i. Customer ID.
 - ii. Game start time according to IGS, account balance at start of game.
 - iii. Wager for game (time stamped).
 - iv. Contributions to Jackpot pools.
 - v. Game status (in progress, complete, etc.).
 - vi. Game result (time stamped).
 - vii. Jackpot win (if applicable).
 - viii. Game end time according to IGS.
 - ix. Amount won.
 - x. Account balance at end of game.
 - xi. Any game that fails to complete and the reason why the game failed to complete.

- vi) **I** Significant event information to be maintained by the IGS should include:
 - i. Large wins (configurable threshold parameter).
 - ii. Large transfers of funds (single and aggregate over defined time period).
 - iii. Changes made to game parameters.
 - iv. Changes made to jackpot parameters.
 - v. New jackpot created.
 - vi. Participant added to or deleted from jackpot participation.
 - vii. Jackpot win occurs.
 - viii. Jackpot retired.
 - ix. Customer exclusion (including exclusion, requests to lift exclusion, and actual lifting of exclusion).

- vii) **I** The customer registration information, banking and payment processing should be maintained on a secure part of the system.

- viii) **I** A customer verification flag should be available to the on-line gaming application. *This flag attached to the customer's record in the database.*

- ix) **I** Details of the customer verification shall be maintained. (If on-line, demonstrate that sensitive customer data is secured.)

- x) **I** The system is to report for each account, for a period of time, upon request:
 - i) Deposits
 - ii) Wagers.
 - iii) Wins.
 - iv) Withdrawn.
 - v) Money sitting in an account for a period of over 90 days.

5.9 External Wagering Systems

5.9.2 **I** Wagering Process

- i) The external wagering system should communicate acceptance, partial acceptance (and details), or rejection of all wagers placed on the IGS.

- ii) If the external wagering system determines the cost of the wager, there should be a positive confirmation sequence in place to enable:
 - a) the customer to accept the bet cost and
 - b) the IGS to determine that there are enough funds in the customer's account to meet the wager cost.

The IGS shall perform this activity prior to making an offer to an external wagering system.

- iii) The IGS shall debit the customer's account balance of the amount equalling the offer

(and cost) to the external wagering system. The IGS shall retain the funds as a pending transaction, and shall log details of the offer to the external wagering system (in accordance with transaction logging guidelines).

- iv) On receipt of acknowledgement of the wager from the external wagering system, the IGS shall log the acknowledgement, and shall make appropriate adjustments to the “pending” account and the customer account (*e.g. if a refund is required due to partial acceptance or rejection of offer*).
- v) The external wagering system shall communicate acknowledgement of acceptance or rejection of cancellation requests from the IGS.
- vi) The IGS shall not credit a customer’s account balance until it has received final confirmation from the external wagering system, including the amount of the cancel.

5.9.3 **I** Winner Update

- i) When results are entered and confirmed on the external wagering system, the external wagering system shall transfer each winning wager placed from the IGS system back to the IGS with the amount of the win.
- ii) Upon receiving the external wagering system’s win confirmation, the IGS shall update the customer’s account with the winning amount.

5.9.4 **I** Wagering Information

- i) If the external wagering system provides jackpot facilities for the IGS, it should periodically pass the current jackpot amounts to the IGS. *Cautionary notes should accompany such projections (especially if cancellations are permitted).*
- ii) If the external wagering system provides fixed price wagering facilities for the IGS where the odds/prize table can be dynamically changed, it should pass the current odds to the IGS whenever any odds are changed.
- iii) The external wagering system should pass change of event status information to the IGS whenever any change occurs including:
 - a) Withdrawn/reinstated selections.
 - b) Altered event starting time.
 - c) Event closed/open.
 - d) Results entered/modified.
 - e) Results confirmed.
 - f) Event abandoned.