

# NEBRASKA RACING AND GAMING COMMISSION

## ADDENDUMS TO MINIMUM INTERNAL CONTROL STANDARDS

### Table of Contents

ADDENDUM 1 TABLE GAME RULES APPROVAL.....	A-2
ADD 1.A Table Game Rules.....	A-2
ADD 1.B Submission Requirements for a New Table Games or a Change to a Table Game.....	A-4
ADDENDUM 2 CARD AND DICE SPECIFICATIONS.....	A-7
ADD 2.A Card Specifications.....	A-7
ADD 2.B Dice Specifications.....	A-7
ADDENDUM 3 CHIP SPECIFICATIONS.....	A-9
ADD 3.A Submission Requirements for Casino Chips.....	A-9
ADD 3.B Chip Design Requirements.....	A-9
ADDENDUM 4 TECHNICAL STANDARDS.....	A-11
ADD 4.A General.....	A-11
ADD 4.B Electronic Gaming Devices (EGDs).....	A-11
ADD 4.C Cashless Wagering Systems.....	A-13
ADD 4.D Client Server Systems.....	A-15
ADD 4.E Change Management System.....	A-15
ADDENDUM 5 CRITICAL GAMING SYSTEMS.....	A-17
ADD 5.A General.....	A-17
ADD 5.B Location and Security of Sports Wagering Systems.....	A-20

# ADDENDUM 1 TABLE GAME RULES APPROVAL

## ADD 1.A Table Game Rules

**ADD 1.A1** The ICS for game rules must include, at a minimum, procedures and controls that:

**ADD 1.A1(i)** Describe the general game rules, including:

**ADD 1.A1(i)(1)** The maximum number of concurrent players for each game;

**ADD 1.A1(i)(2)** The objective of each game and rules of play including what constitutes win, loss, or tie bets; and

**ADD 1.A1(i)(3)** The physical characteristics of the game, including applicable gaming equipment.

**ADD 1.A1(ii)** Ensure that wager and payout odds for each type of available wager are made available to players, including:

**ADD 1.A1(ii)(1)** The posting of the permissible wagers and payout odds; and

**ADD 1.A1(ii)(2)** The posting of minimum and maximum wagers on a sign at each table.

**ADD 1.A1(iii)** Ensure that the minimum and maximum wagers are posted at each table, including procedures that ensure:

**ADD 1.A1(iii)(1)** That the limits are changed between games by posting new table limits;

**ADD 1.A1(iii)(2)** If the minimum or maximum wager is changed, the sign is changed to reflect the new amount; and

**ADD 1.A1(iii)(3)** May allow the following bets during a table limit change if:

**ADD 1.A1(iii)(3)(a)** That players who were playing when minimum table limits are raised may be allowed continue to place bets under the previous table minimum limit; and

**ADD 1.A1(iii)(3)(b)** Those players who were playing when a maximum table limit is lowered may be allowed to continue placing bets under the previous table maximum bet.

**ADD 1.A1(iv)** Ensure that the minimum and maximum wagers are posted at each table, including procedures that:

**ADD 1.A1(iv)(1)** Ensure that the limits are changed between games by posting new table limits;

**ADD 1.A1(iv)(2)** Ensure that if the minimum or maximum wager is changed, the sign is changed to reflect the new amount; and

**ADD 1.A1(iv)(3)** May allow the following bets during a table limit change if:

**ADD 1.A1(iv)(3)(a)** Players who were playing when minimum table limits are raised may be allowed continue to place bets under the previous table minimum limit; and

**ADD 1.A1(iv)(3)(b)** Players who were playing when a maximum table limit is lowered may be allowed to continue placing bets under the previous table maximum bet.

**ADD 1.A1(v)** Describe inspection procedures for:

**ADD 1.A1(v)(1)** Cards;

**ADD 1.A1(v)(2)** Dice;

**ADD 1.A1(v)(3)** Wheels and balls;

**ADD 1.A1(v)(4)** Manual and electronic devices used to operate, display the outcome, or monitor live games; and

**ADD 1.A1(v)(5)** Cards or punchboards.

**ADD 1.A1(vi)** For each game that uses cards, describe procedures for:

**ADD 1.A1(vi)(1)** Shuffling procedures;

**ADD 1.A1(vi)(2)** Card cutting procedures;

**ADD 1.A1(vi)(3)** Procedures for dealing and taking cards; and

**ADD 1.A1(vi)(4)** Burning cards.

**ADD 1.A1(vii)** That for the game of roulette, dealing procedures require:

**ADD 1.A1(vii)(1)** The dealer not to speed up or slow down the roulette wheel when the ball is spinning; and

**ADD 1.A1(vii)(2)** The dealer to look away from the roulette wheel before spinning the ball.

**ADD 1.A1(viii)** Describe the collection of bets and payouts;

**ADD 1.A1(ix)** Describe the dispute arbitration process, including:

**ADD 1.A1(ix)(1)** The documenting of disputes; and

**ADD 1.A1(ix)(2)** The reporting of arbitration incidents to the NRGC Supervisor or designee by the end of each gaming day;

**ADD 1.A1(x)** Describe the handling suspected cheating or irregularities and notification of the NRGC Supervisor/Agent; and

**ADD 1.A1(xi)** Ensure the immediate notification of the NREGC Supervisor/Agent when equipment is suspected to be defective or malfunctioning.

**ADD 1.B Submission Requirements for a New Table Games or a Change to a Table Game**

**ADD 1.B1** Submissions from a Licensee to the NREGC for a new table game or a change to a table game must include, at a minimum:

**ADD 1.B1(i)** Evidence to demonstrate conformance with industry standard rules;

**ADD 1.B1(ii)** A description of the object of the game and method of play, including what constitutes win, loss, or tie bets;

**ADD 1.B1(iii)** The physical characteristics of the game, gaming equipment, and gaming table;

**ADD 1.B1(iv)** A description of the wagers and payout odds for each type of available wager;

**ADD 1.B1(v)** The applicable inspection procedures for any of the following required by the game:

**ADD 1.B1(v)(1)** Cards;

**ADD 1.B1(v)(2)** Dice;

**ADD 1.B1(v)(3)** Wheels and balls; or

**ADD 1.B1(v)(4)** Manual and electronic devices that are used to operate, display the outcome, or monitor live games.

**ADD 1.B1(vi)** For each game that uses cards, a description of the following:

**ADD 1.B1(vi)(1)** Shuffling procedures;

**ADD 1.B1(vi)(2)** Card cutting procedures;

**ADD 1.B1(vi)(3)** Procedures for dealing and taking cards; and

**ADD 1.B1(vi)(4)** Burning cards.

**ADD 1.B1(vii)** Procedures for the collection of bets and payouts including requirements for internal revenue service purposes;

**ADD 1.B1(viii)** Procedures for handling suspected cheating or irregularities and immediate notification of Commission gaming agent on duty;

**ADD 1.B1(ix)** Procedures for immediate notification to the NREGC when equipment is defective or malfunctioning;

**ADD 1.B1(x)** Any other consideration that the NREGC deems necessary, including fairness to patrons.

**ADD 1.B2** The NRGC may require the use of a certified independent testing laboratory to evaluate the proposed table game, its rules, and associated equipment (e.g., shuffler, etc.). The cost of such testing shall be paid for by the Licensee or Gaming-Related Vendor submitting the game for approval;

**ADD 1.B3** The NRGC may require a trial period to assess the functionality of the table game, rules of the game, and associated equipment in a live gaming environment. The conduct of the trial period shall be subject to compliance by the NRGC and Gaming-Related Vendor with any conditions that may be required by the Commission, including duration of the trial;

**ADD 1.B4** No Licensee or Gaming-Related Vendor shall install a table game or associated equipment unless the table game, rules of the game, and associated equipment have been approved by the NRGC.

**ADD 1.B5** A Licensee may only offer NRGC-approved table games for play and must operate the games according to the approved rules;

**ADD 1.B6** Licensees shall notify the NRGC in writing and receive written approval in accordance with its NRGC-approved Internal Control Standards before installing, moving, or disposing of a table game or associated equipment that has been approved;

**ADD 1.B7** Any modification to a table game or the associated equipment may be authorized by the NRGC on an emergency basis to prevent cheating or malfunction. The emergency request shall be documented by the Licensee in accordance with the ICS;

**ADD 1.B8** Each Licensee shall notify the NRGC of any known or suspected defect or malfunction in any table game or associated equipment installed in the Gaming Facility at the time of detection. The Licensee shall comply with any instructions from the Commission staff for the use of the table game or associated equipment;

**ADD 1.B9** A Licensee may only purchase or lease table games, table game mechanisms, table game layouts, chips, dice, and table game cards from licensed Gaming-Related Vendors;

**ADD 1.B10** Transportation of all approved table game mechanisms, gaming chips, cards, dice, and related table game equipment must comply with the Licensee's ICS;

**ADD 1.B11** A Licensee shall not:

**ADD 1.B11(i)** Permit the use of any table game or associated table game equipment that could have been marked, tampered with, or otherwise placed in a condition or operated in a manner that might affect the normal game play and its payouts;

**ADD 1.B11(ii)** Permit known cheating;

**ADD 1.B11(iii)** Permit any cheating device to remain in or upon any Gaming Facility;

**ADD 1.B11(iv)** Conduct, carry on, operate, or deal any cheating or thieving game or device on the Gaming Facility premises;

**ADD 1.B11(v)** Permit any gambling device that alters the normal random selection of criteria that determines the results of the game or deceives the public in any way to remain in or upon any Gaming Facility; or

**ADD 1.B11(vi)** Permit a patron to possess any calculator, computer, or other electronic, electrical, or mechanical device at any table game that meets any of the following conditions:

**ADD 1.B11(vi)(1)** Assists in projecting the outcome of a game;

**ADD 1.B11(vi)(2)** Keeps track of cards that have been dealt;

**ADD 1.B11(vi)(3)** Keeps track of changing probabilities; or

**ADD 1.B11(vi)(4)** Keeps track of playing strategies being utilized, except as permitted by the Commission.

**ADD 1.B12** No payoff schedule shall be worded in a manner that misleads the public; and

**ADD 1.B13** Each Licensee shall prominently post a summary of the rules and payoff schedules on its website for each table game offered. A sign must be posted in the pit that indicates a copy of the rules and payoff schedules for any table game offered are available upon request by a patron.

# ADDENDUM 2 CARD AND DICE SPECIFICATIONS

## ADD 2.A Card Specifications

**ADD 2.A1** Unless otherwise approved by the NRGCC, all playing cards utilized by A Licensee shall comply with all of the following specifications:

**ADD 2.A1(i)** All decks of cards shall be one complete standard deck of fifty-two (52) cards in four suits. The four suits shall be hearts, diamonds, clubs, and spades. Each suit shall consist of all the following numerical cards:

**ADD 2.A1(i)(1)** Two to Ten.

**ADD 2.A1(i)(2)** A jack.

**ADD 2.A1(i)(3)** A queen.

**ADD 2.A1(i)(4)** A king.

**ADD 2.A1(i)(5)** An ace.

**ADD 2.A1(ii)** The backs of each card in a deck shall be identical and no card shall contain any marking, symbol, or design that will enable an individual to know the identity of any element printed on the face of the card or that will differentiate the back of that card from any other card in the deck;

**ADD 2.A1(iii)** All edges shall be perfectly square with each side at a precise 90-degree angle to each adjacent side of the card;

**ADD 2.A1(iv)** The radius of all four corners shall be exactly the same;

**ADD 2.A1(v)** All new card decks shall arrive wrapped in cellophane, shrink wrap packaging, or with a tamper-resistant security seal; and

**ADD 2.A1(vi)** The card supplier's identification name shall be placed on each box.

## ADD 2.B Dice Specifications

**ADD 2.B1** Unless otherwise approved by the NRGCC, all dice utilized by A Licensee shall comply with all of the following specifications:

**ADD 2.B1(i)** Each die shall be formed in the shape of a perfect cube and of a size no smaller than 0.750 inches on each side nor larger than 0.775 inches on each side;

**ADD 2.B1(ii)** Each die shall be transparent and made exclusively of cellulose, except for the following:

**ADD 2.B1(ii)(1)** Spots;

**ADD 2.B1(ii)(2)** Name, trade name, or logo of the Licensee; and

**ADD 2.B1(ii)(3)** Serial number or letters, or both.

**ADD 2.B2** The surface of each side of the die shall be perfectly flat and the spots contained in each side of the die shall be perfectly flush with the area surrounding the spots.

**ADD 2.B3** The edges and corners of each die shall be perfectly square and form 90-degree angles with each adjacent side.

**ADD 2.B4** The texture and finish of each side shall be identical to the texture and finish of all other sides.

**ADD 2.B5** The weight of each die shall be equally distributed throughout the cube, and no side of the cube may be heavier or lighter than any other side of the cube.

**ADD 2.B6** Each die shall have six sides bearing white circular spots from one to six, respectively, with the diameter of each spot equal to the diameter of every other spot on the die.

**ADD 2.B7** Each die shall have spots arranged so that all the following provisions are satisfied:

**ADD 2.B7(i)** The side containing one spot is directly opposite the side containing six spots;

**ADD 2.B7(ii)** The side containing two spots is directly opposite the side containing five spots;

**ADD 2.B7(iii)** The side containing three spots is directly opposite the side containing four spots;  
and

**ADD 2.B7(iv)** Each spot shall be placed on the die by drilling, or the equivalent, into the surface of the cube and filling the drilled-out portion with a compound that is equal in weight to the weight of the cellulose drilled out and that forms a permanent bond with the cellulose cube.



# ADDENDUM 3 CHIP SPECIFICATIONS

## ADD 3.A Submission Requirements for Casino Chips

**ADD 3.A1** No Licensee shall utilize these chips for gaming purposes until approved in writing by the NRGC.

**ADD 3.A2** Submissions from a Licensee to the NRGC for Casino Chip approvals must include, at a minimum:

**ADD 3.A2(i)** A detailed schematic of its proposed chips and a sample chip. The detailed schematic shall show the front, back, and edge of each denomination of value chip and each non-value chip and the design and wording to be contained on the chip and

**ADD 3.A2(ii)** A sample of each denomination of value chips and non-value chips to the NRGC for approval.

## ADD 3.B Chip Design Requirements

**ADD 3.B1** Licensees may use both value and non-value chips.

**ADD 3.B2** Each value and non-value chip shall be designed, manufactured, and constructed to prevent counterfeiting.

**ADD 3.B3** Each value and non-value chip shall have its center portion impressed, engraved, imprinted, or inlaid with the name of the Licensee that is issuing the chip.

**ADD 3.B4** Each value chip issued by a Licensee shall have the following characteristics:

**ADD 3.B4(i)** Be round;

**ADD 3.B4(ii)** Have its center portion impressed, engraved, imprinted, or inlaid with the value of the chip;

**ADD 3.B4(iii)** Have, at least on one side of the chip, the name of the city or other locality and the state in which the Gaming Facility is located and either the manufacturer's name or a distinctive logo or other mark identifying the manufacturer; and

**ADD 3.B4(iv)** Be designed so that the specific denomination of a chip can be determined on surveillance camera monitors when placed in a stack of chips of other denominations.

**ADD 3.B5** Unless otherwise authorized by the NRGC, value chips may be issued by a Licensee in denominations of one dollar, two dollars and fifty cents, five dollars, twenty dollars, twenty-five dollars, one hundred dollars, five hundred dollars, one thousand dollars, five thousand dollars, ten thousand dollars, and twenty-five thousand dollars.

**ADD 3.B6** Unless otherwise approved by the NRGCC, value chips shall have the colors specified in this paragraph when the chips are viewed both in daylight and under artificial light. In conjunction with these primary colors, each shall utilize contrasting secondary colors for the edge spots on each denomination of value chip.

**ADD 3.B7** The primary color to be utilized by each Gaming Facility for each denomination of value chip shall be as follows:

**ADD 3.B7(i)** For one dollar, white;

**ADD 3.B7(ii)** For two dollars and fifty cents, pink;

**ADD 3.B7(iii)** For twenty dollars, yellow;

**ADD 3.B7(iv)** For twenty-five dollars, green;

**ADD 3.B7(v)** For one hundred dollars, black;

**ADD 3.B7(vi)** For five hundred dollars, purple;

**ADD 3.B7(vii)** For one thousand dollars, fire orange;

**ADD 3.B7(viii)** For five thousand dollars, grey;

**ADD 3.B7(ix)** For ten thousand dollars, burgundy; and

**ADD 3.B7(x)** For twenty-five thousand dollars, blue.

**ADD 3.B8** Each non-value chip utilized by a Licensee for roulette shall meet the following conditions:

**ADD 3.B8(i)** Contain a design, insert, or symbol differentiating it from the non-value chips being used at every other roulette table in the Gaming Facility; and

**ADD 3.B8(ii)** Have "Roulette" impressed on it.

**ADD 3.B9** Non-value chips issued at a roulette table shall be used only for gaming at that table and shall not be redeemed or exchanged at any other location in the Gaming Facility. When so presented, the dealer at the issuing table shall exchange these chips for an equivalent amount of value chips.

**ADD 3.B10** Licensees may request approval from the NRGCC for the use of special occasion, limited edition, promotional, and tournament chips. Approval must be granted in writing and may contain terms and conditions for use, including an expiration date for the use of the chips.

# ADDENDUM 4 TECHNICAL STANDARDS

## ADD 4.A General

**ADD 4.A1** Electronic Gaming Equipment and Systems must meet the latest applicable version of the following technical standards, or their equivalent as approved by the NRGC, as determined by the NRGC:

**ADD 4.A1(i)** GLI-11 – Gaming Devices;

**ADD 4.A1(ii)** GLI-12 – Progressive Gaming Devices;

**ADD 4.A1(iii)** GLI-13 – Monitoring and Control Systems and Validation Systems;

**ADD 4.A1(iv)** GLI-16 – Cashless Systems and Technologies;

**ADD 4.A1(v)** GLI-17 – Bonusing Systems;

**ADD 4.A1(vi)** GLI-18 – Promotional Systems;

**ADD 4.A1(vii)** GLI-20 – Kiosks;

**ADD 4.A1(viii)** GLI-21 – Client Server Systems;

**ADD 4.A1(ix)** GLI-24 – Electronic Table Game Systems;

**ADD 4.A1(x)** GLI-25 – Dealer Controlled Electronic Table Game Systems;

**ADD 4.A1(xi)** GLI-26 – Wireless Systems;

**ADD 4.A1(xii)** GLI-28 – Patron User Interface Systems;

**ADD 4.A1(xiii)** GLI-29 – Card Shufflers and Dealer Shoes; and

**ADD 4.A1(xiv)** GLI-33- Event Wagering Systems

**ADD 4.A2** Technical standards therein are subject to review and revision by the NRGC and must not be construed to either allow or disallow other technologies because they do not conform to these standards.

**ADD 4.A3** Unless otherwise authorized by the NRGC, any sports wagering product's controlled software source code and any special tool, computer equipment, compiling program, or other technical assistance necessary to compile the submitted software, must be submitted to the independent testing laboratory. The result of the compiled source code must be identical to that in the software submitted for evaluation.

## ADD 4.B Electronic Gaming Devices (EGDs)

**ADD 4.B1** EGDs submitted for approval shall employ a verification mechanism which allows remote validation of all Critical Program Storage Devices (CPSDs).

**ADD 4.B2** The verification mechanism shall be readily accessible via a communication port and utilize the Game Authentication Terminal (GAT) protocol v3.50 or higher, or an equivalent protocol approved by the NRGC.

**ADD 4.B3** The communication port shall be located within the EGD and allow connectivity without requiring access to the locked logic area. If the port is located on the backplane of the interior cabinet, an extension cable shall be permanently mounted to allow connection of the required cable towards the front interior of the cabinet.

**ADD 4.B4** The EGD must provide on-demand authentication of CPSDs. This function shall not require the power to be cycled and the execution time shall not exceed twenty (20) minutes.

**ADD 4.B5** The EGD must generate a unique signature for each CPSD utilizing secure hashing algorithm-1 (SHA-1) with hash-based message authentication code (HMAC), as defined by the National Institute of Standards and Technology (NIST), Hashing methodologies will be continually reevaluated by the NRGC.

**ADD 4.B6** The EGD must provide support for escrowing and retrieving verification results. Verification results shall be preserved and retrievable pending a subsequent verification request or a loss of power.

**ADD 4.B7** The EGD must allow an authentication to be sent to the machine then after a disconnect of communications, retrieved later. During the disconnect of communications it is recommended that the EGD be capable of being put back into a playable state. If this is not possible, the EGD must at least be capable of being placed into a disabled state.

**ADD 4.B8** The EGD shall be designed to permit a copy of critical non-volatile (NV) memory to be extracted utilizing tools and procedures approved by the NRGC and which shall be provided by the manufacturer. The independent test laboratory, prior to EGD approval, shall verify that such tools and procedures exist, for the purpose of forensic examination.

**ADD 4.B9** The RNG used in the determination of game outcomes in an EGD shall be cryptographically strong. “Cryptographically strong” means that the RNG is resistant to attack or compromise by an intelligent attacker with modern computational resources, and who may have knowledge of the source code of the RNG.

**ADD 4.B10** No game on an EGD may function similarly to or bear any outward appearance to any game regulated by Department of Lottery, which includes lotteries, raffles, pickle cards, bingo, keno, or games which produce an outcome predominantly caused by skill and not chance. This should not preclude the use of games of chance with skill-based features or games based on traditional casino games (e.g., poker, blackjack, etc.).

## **ADD 4.C Cashless Wagering Systems**

**ADD 4.C1** A Cashless Wagering System allows patrons to participate in cashless gaming using an approved, securely protected authentication method, which accesses a Patron Account at the Cashless Wagering System of the Licensee or another account of the patron provided that it allows for the identification of the patron and the source of funds and that is linked in a secure manner to the Cashless Wagering System of the Licensee and the Patron Account on that Cashless Wagering System.

**ADD 4.C2** A Cashless Wagering System may also support the functionality to communicate promotional awards to participating Patron Accounts based upon predefined patron activity criteria established by the parameters of the system. Promotional awards are additional features that entitle patrons to special promotional awards based on patrons play activity or awards gifted by the casino to guests. In this section, unless otherwise specified the term “cashless” shall be used to refer to both promotional and non-promotional functionality.

**ADD 4.C3** A Cashless Wagering System may be entirely integrated into an existing system, such as a monitoring and control system, or exist as an entirely separate entity. If the Cashless Wagering System is comprised of multiple computer systems at various sites, the system as a whole and all communication between its components shall conform to the applicable technical requirements of this section.

**ADD 4.C4** The Cashless Wagering System shall uniquely identify each Cashless Device connected to the system. “Cashless Devices” as used in this section means EGDs, Kiosks, and any other equipment used in a cashless environment.

**ADD 4.C5** Each cashless transactions between a supporting Cashless Device and the Cashless Wagering System must be secured using a method of authentication, such as debit instrument or card insertion or “tap” (contactless) capacity on the patron identification component and secure personal identification code/PIN entry, a similar approved process that allows for the identification of the patron and the source of funds when an approved third-party secure interface that uses a defined protocol, or similar software application on a patron’s device (such as a smartphone or tablet) is used, or a secure alternative means (e.g. finger-print recognition).

**ADD 4.C6** Cashless Wagering Systems shall cause a relevant, informative message to be displayed to the patron whenever any cashless transaction is being processed.

**ADD 4.C7** The Cashless Device, or the patron’s device with a secure interface that uses a defined protocol, must be capable of providing confirmation or denial of every cashless transaction initiated.

**ADD 4.C8** If a patron initiates a cashless transaction and that transaction exceeds cashless device configured limits including the credit limit or transaction limit, the transaction may only be processed

provided that the patron is clearly notified that the patron has received or deposited less than requested to avoid patron disputes.

**ADD 4.C9** Where credits are transferred between the Patron Account and the Cashless Device:

**ADD 4.C9(i)** After the patron's identity is confirmed, the Cashless Device must present transfer options to the patron. Such options may include how many credits the patron wishes to withdraw and be placed on the Cashless Device. A system may move either a predefined amount or the patron's entire balance to the cashless device for play;

**ADD 4.C9(ii)** A transfer shall not be accepted if the transfer will cause the patron to have a negative balance;

**ADD 4.C9(iii)** The account balance is to be debited when the transfer is accepted; and

**ADD 4.C9(iv)** Once play is complete the patron may have the option to move some credits back to the account or cash out some or all credits. A system may require that the entire currency value of the credit balance be transferred back to the system.

**ADD 4.C10** Where credits are NOT transferred between the Patron Account and the Cashless Device:

**ADD 4.C10(i)** A wager shall not be accepted that could cause the patron to have a negative balance; and

**ADD 4.C10(ii)** The account balance is to be debited when the wager is accepted.

**ADD 4.C11** Any Cashless Device that holds information relating to cashless transactions in its memory shall not have means to compromise the information and shall not allow the removal of its information until that information has been successfully transferred and acknowledged by the Cashless Wagering System.

**ADD 4.C12** The Cashless Wagering System shall be able to produce logs for all pending and completed cashless transactions including:

**ADD 4.C12(i)** Patron Account ID or unique transaction ID, either of which can be used to authenticate the source of the funds;

**ADD 4.C12(ii)** Type of transaction including any restrictions;

**ADD 4.C12(iii)** Transaction amount;

**ADD 4.C12(iv)** Time and date of the transaction;

**ADD 4.C12(v)** Cashless Device number or other relevant location information; and

**ADD 4.C12(vi)** Status of the transaction

**ADD 4.C13** The following minimal internal controls shall be implemented to identify and flag suspect Patron Accounts to prevent unauthorized use including:

**ADD 4.C13(i)** Establishing a maximum number of three successive incorrect authentication attempts before account lockout;

**ADD 4.C13(ii)** Flagging of hot accounts where cards or authentication credentials have been stolen;

**ADD 4.C13(iii)** Monitoring Cashless Devices for funds transferred into the Cashless Device from one Patron Account then transferred out to another Patron Account; and

**ADD 4.C13(iv)** Monitoring Patron Accounts for opening and closing in short time frames and for deposits and withdrawal without associated game play transactions.

#### **ADD 4.D Client Server Systems**

**ADD 4.D1** The Client Server System shall not be capable of altering any component on any connected EGD that would interrupt, or affect the functions, game outcome, or configurable options of a game in progress on any EGD connected to the Client Server System; provided however, that a Client Server System may suspend a game theme or disable a EGD at any time if there is a valid reason to do so.

**ADD 4.D2** Software shall not be activated, deactivated, added to, modified, or removed from an EGD while an error or tilt condition, or hand pay lockup exists on the EGD, except as necessary to rectify the error condition.

**ADD 4.D3** The EGD shall be in the idle mode with no activity, no credits, no door open, and no error condition for at least two (2) minutes prior to the change in the active software unless the change is the direct result of a patron request, or a qualifying event that is not an identifier, which may include, but is not limited to, the number of games played, or the cumulative amount wagered by a patron during a game or series of games as provided for in the rules of play. Active software consists of the following:

**ADD 4.D3(i)** All the games currently available for play by the patron on the EGD that do not first require additional software or a change in game configuration such as denomination, maximum wager, return to patron, etc.; and

**ADD 4.D3(ii)** Any software in which a change will interrupt normal game play (e.g., operating system software and peripheral firmware).

#### **ADD 4.E Change Management System**

**ADD 4.E1** A Licensee or Sports Wagering Services Provider shall submit change control processes to the NRGD for approval. These processes must be:

**ADD 4.E1(i)** Developed in accordance with the most current version of the GLI-CMP Change Management Program Guide; and

**ADD 4.E1(ii)** Approved by the NRGC prior to its deployment and audited at an annual interval by the independent testing laboratory.

**ADD 4.E2** The Licensee or Sports Wagering Services Provider shall submit quarterly change reports to the independent testing laboratory for review to ensure risk is being assessed according to the change management processes and that documentation for changes is complete.

**ADD 4.E3** At least annually, each product operating under the certified change control processes must be fully certified to the standards set forth in GLI-33, these MICS, as well as to the Law and Regulations provided by the NRGC and accompanied by formal certification documentation from the independent testing laboratory. The Licensee or Sports Wagering Services Provider, where separate, may seek approval for extension beyond the annual approval if hardship can be demonstrated. Granting of a hardship waiver is the sole discretion of the NRGC.



# ADDENDUM 5 CRITICAL GAMING SYSTEMS

## ADD 5.A General

**ADD 5.A1** Critical Gaming Systems as used in this section mean all regulated components of systems hardware and software, application software (e.g., Monitoring and Control Systems, Voucher Systems, Bonusing Systems, Cashless Wagering Systems), and database software that individually or in combination are used for regulated gaming operations.

**ADD 5.A2** All hardware, software, logic or code, calculations, and interfaces of the Critical Gaming System which affects regulated operations are subject to testing by the NRGCC and/or an independent testing laboratory designated by the NRGCC.

**ADD 5.A3** The ICS for critical gaming systems must include, at a minimum, procedures and controls that:

**ADD 5.A3(i)** Ensure that the NRGCC approve any Critical Gaming System prior to utilization by a Licensee;

**ADD 5.A3(ii)** Ensure that prior to installation of a Critical Gaming System or any modification thereto, must provide documentation is provided to the NRGCC relating to:

**ADD 5.A3(ii)(1)(a)** All hardware on which the Critical Gaming System resides;

**ADD 5.A3(ii)(1)(b)** Any non-operating system or non-utility software operating thereon;

**ADD 5.A3(ii)(1)(c)** All associated hardware and software interfaced with the Critical Gaming System; and

**ADD 5.A3(ii)(1)(d)** Any known vulnerabilities outlining any previously identified system.

**ADD 5.A3(iii)** Ensure that requests to waive modifications or upgrades to an existing Critical Gaming System are approved by the NRGCC prior to implementing any proposed modification or upgrade.

**ADD 5.A3(iv)** Ensure submissions to the NRGCC for modifications or upgrades to an existing Critical Gaming System include:

**ADD 5.A3(iv)(1)** A description of the reasons for the proposed modification(s);

**ADD 5.A3(iv)(2)** A list of the computer component(s) and programs(s) or version(s) to be added, modified, or replaced; and

**ADD 5.A3(iv)(3)** Copies of all current independent testing laboratory certification letter(s);

**ADD 5.A3(iv)(4)** A description of any functionality changes to any screen(s), menu(s), report(s), or operating processes that will be affected;

**ADD 5.A3(iv)(5)** The method to be used to complete the proposed modification(s);

**ADD 5.A3(iv)(6)** The method to be used to reverse the proposed modification(s) should the proposed modification(s) fail;

**ADD 5.A3(iv)(7)** The date and time the proposed modification(s) will be installed and the estimated time for completion. If the proposed modification is subject to waiver, this information must be reviewed by the NRGC prior to issuing the waiver;

**ADD 5.A3(iv)(8)** The name, title, NRGC license number, corporate employee number (if applicable), and employer of the person(s) scheduled to perform the modification(s);

**ADD 5.A3(iv)(9)** Procedures for inactivating access of the person(s) implementing the modification(s) to the Critical Gaming System once the upgrade has been completed, not to exceed fifteen business days following the departure of support personnel;

**ADD 5.A3(iv)(10)** A diagrammatic representation of the proposed hardware design change locally and at any offsite facility;

**ADD 5.A3(iv)(11)** A description of the restrictions on update access to the production code to the person implementing the modification(s);

**ADD 5.A3(iv)(12)** Procedures to ensure the user and Licensee manuals are updated to reflect changes in policies and procedures resulting from the proposed modification(s);

**ADD 5.A3(iv)(13)** A list of all support personnel who will be accessing restricted areas associated with the modification(s). The Licensee must include detailed procedures for the “resetting” of key codes and/or deactivation of access card(s); and

**ADD 5.A3(iv)(14)** A plan for user acceptance testing and the method for documenting the results of testing.

**ADD 5.A3(v)** Ensure that all components of the Critical Gaming Systems are located in secure locations, with access permitted only to authorized personnel; and

**ADD 5.A3(vi)** Ensure that all proprietary software and hardware is supplied by an NRGC Licensed Supplier, with the exception of the printer paper used by the voucher printer;

**ADD 5.A3(vii)** Ensure that the Licensee maintains a log of system problems, which must:

**ADD 5.A3(vii)(1)** Include the date and time of the problem;

**ADD 5.A3(vii)(2)** Include a description of the problem;

**ADD 5.A3(vii)(3)** Include the name of the person making the entry; and

**ADD 5.A3(vii)(4)** Be made readily available to any NRG Agent.

**ADD 5.A3(viii)** Ensure that the Licensee immediately notifies the NRG any malfunction that threatens the integrity of any Critical Gaming Systems;

**ADD 5.A3(ix)** Ensure that remote access to a Critical Gaming System is prohibited unless the NRG has approved internal controls that specifically address Remote Access procedures. The Licensee must describe thoroughly/step by step the protocol that will be utilized regarding remote access and the approval process; and

**ADD 5.A3(x)** Ensure that, within ninety (90) days after commencing operations in Nebraska, and annually thereafter, have an integrity and security assessment of the Critical Gaming Systems conducted by an independent professional selected by the Licensee and subject to approval of the NRG.

**ADD 5.A3(xi)** The scope of the integrity and security assessment is subject to approval of the NRG and must include, at a minimum, all of the following:

**ADD 5.A3(xi)(1)** A vulnerability assessment of digital platforms, mobile applications, internal, external, and wireless networks with the intent of identifying vulnerabilities of all devices, the Critical Gaming Systems, and applications transferring, storing, and/or processing personal identifying information and/or other sensitive information connected to or present on the networks;

**ADD 5.A3(xi)(2)** A penetration test of all digital platforms, mobile applications, internal, external, and wireless networks to confirm if identified vulnerabilities of all devices, the Critical Gaming Systems, and applications are susceptible to compromise;

**ADD 5.A3(xi)(3)** A review of the firewall rules to verify the operating condition of the firewall and the effectiveness of its security configuration and rule sets performed on all the perimeter firewalls and the internal firewalls;

**ADD 5.A3(xi)(4)** A technical security control assessment against the provisions adopted in the applicable GLI Gaming Security Framework (GLI-GSF) modules and these MICS with generally accepted professional standards and as approved by the NRG;

**ADD 5.A3(xi)(5)** An evaluation of information security services, cloud services, payment services (financial institutions, payment processors, etc.), and any other services which may be offered directly by the Licensee or involve the use of third parties; and

**ADD 5.A3(xi)(6)** Any other specific criteria or standards for the integrity and security assessment as prescribed by the NRGC.

**ADD 5.A3(xii)** The full independent professional's report on the integrity and security assessment must be submitted to the Commission no later than thirty (30) days after the assessment is conducted and must include all the following:

**ADD 5.A3(xii)(1)** Scope of review;

**ADD 5.A3(xii)(2)** Name and company affiliation of the individual or individuals who conducted the assessment;

**ADD 5.A3(xii)(3)** Date of assessment;

**ADD 5.A3(xii)(4)** Findings;

**ADD 5.A3(xii)(5)** Recommended corrective action, if applicable; and

**ADD 5.A3(xii)(6)** Licensee's response to the findings and recommended corrective action.

#### **ADD 5.B Location and Security of Sports Wagering Systems**

**ADD 5.B1** The ICS for location and security of sports wagering systems must include, at a minimum, procedures and controls that ensure:

**ADD 5.B1(i)** The primary server other equipment responsible for the acceptance of patron wagers:

**ADD 5.B1(i)(1)** Is in a secure location within Nebraska;

**ADD 5.B1(i)(2)** Has adequate security;

**ADD 5.B1(i)(3)** 24-hour surveillance;

**ADD 5.B1(i)(4)** Is licensed and approved by the NRGC.

**ADD 5.B1(ii)** That within ninety (90) days after commencing operations in Nebraska, and annually thereafter, have an integrity and security assessment of the Sports Wagering Systems conducted by an independent professional selected by the licensee and subject to approval of the NRGC that includes, at a minimum,:

**ADD 5.B1(ii)(1)** A vulnerability assessment of digital platforms, mobile applications, internal, external, and wireless networks with the intent of identifying vulnerabilities of all devices, the Sports Wagering Systems, and applications transferring, storing, and/or processing personal identifying information and/or other sensitive information connected to or present on the networks;

**ADD 5.B1(ii)(2)** A penetration test of all digital platforms, mobile applications, internal, external, and wireless networks to confirm if identified vulnerabilities of all devices, the Sports Wagering Systems, and applications are susceptible to compromise;

**ADD 5.B1(ii)(3)** A review of the firewall rules to verify the operating condition of the firewall and the effectiveness of its security configuration and rule sets performed on all the perimeter firewalls and the internal firewalls;

**ADD 5.B1(ii)(4)** A technical security control assessment against the provisions adopted in these MICS with generally accepted professional standards and as approved by the NRGC;

**ADD 5.B1(ii)(5)** An evaluation of information security services, cloud services, payment services (financial institutions, payment processors, etc.), and any other services which may be offered directly by the licensee or involve the use of third parties; and

**ADD 5.B1(ii)(6)** Any other specific criteria or standards for the integrity and security assessment as prescribed by the NRGC.

**ADD 5.B1(iii)** The full independent professional's report on the integrity and security assessment must be submitted to the NRGC no later than thirty (30) days after the assessment is conducted and must include all the following:

**ADD 5.B1(iii)(1)** Scope of review;

**ADD 5.B1(iii)(2)** Name and company affiliation, contact information, qualifications of the individual or individuals who conducted the assessment;

**ADD 5.B1(iii)(3)** Date of assessment;

**ADD 5.B1(iii)(4)** Findings;

**ADD 5.B1(iii)(5)** Recommended corrective action, if applicable; and

**ADD 5.B1(iii)(6)** The Licensee's response to the findings and recommended corrective action.

**ADD 5.B1(iv)** A licensee or Sports Wagering Services Provider may establish test accounts to be used to test the various components and operation of a sports wagering system pursuant to ICS adopted by the licensee or Sports Wagering Services Provider. In establishing test accounts, the licensee or Sports Wagering Services Provider shall address:

**ADD 5.B1(iv)(1)** The procedures for issuing funds used for testing, including the identification of who may issue the funds and the maximum amount of funds that may be issued;

**ADD 5.B1(iv)(2)** The procedures for assigning each test account for use by only one individual or a specific scenario or instance of a test account that may be shared by multiple users if each user's activities are separately logged;

**ADD 5.B1(iv)(3)** The maintenance of a record for all test accounts, to include when they are active, to whom they are issued, and the employer of the individual to whom they are issued;

**ADD 5.B1(iv)(4)** The procedures for auditing testing activity by the licensee or Sports Wagering Services Provider to ensure the accountability of funds used for testing and proper adjustments to sports wagering revenue; and

**ADD 5.B1(iv)(5)** The procedures for authorizing and auditing out-of-state test activity.

