Mille Lacs Band of Ojibwe Indians

Gaming Regulatory Authority

Detailed Gaming Regulations

DGR- 5 Class II Technical Standards

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1. General Class II Technical Standards

1.1 The Gaming Operation/Gaming Enterprise shall develop a system of internal controls to safeguard the integrity of all gaming systems and technological aids used in the play of class II gaming and other gaming activities. Controls shall include, but not be limited to the following:

1.1.1. Installations of gaming systems and technological aids

1.1.2. Operations of gaming systems and technological aids

1.1.3. Modifications to gaming systems and technological aids

1.1.4. Removal of gaming systems and technological aids

1.1.5. Retirement of gaming systems and technological aids

1.2 Supervision must be provided for Class II Gaming System operations as needed by associates with authority equal to or greater than those being supervised.

1.2. No Class II gaming system shall cheat or mislead users. All prizes advertised shall be available to win during the game.

1.3. All gaming equipment and software used with Class II gaming systems shall perform according to the manufacturer's design and operating specifications. Any Class II Gaming system shall meet the standards in 25CFR 547 and applicable Tribal standards.

1.4. The GRA shall require an Independent Test Laboratory (ITL) to perform the following:

1.4.1. Calculates and/or verifies the mathematical expectations of game play, in accordance with the manufacturer's stated submission

1.4.2. Forward results, including the ITL's report, to the GRA

1.5. The GRA may request the manufacturer's PAR sheets for the game.

1.6. All gaming equipment and software used with Class II gaming systems shall be identical in all respects to a prototype reviewed and tested by an ITL and approved for use by the GRA.

1.7. Records required to be maintained shall be made available to the GRA upon request.

2. Class II Gaming System Submission, Testing, and Approval

2.1. The Class II Gaming system shall meet the following requirements:

2.1.1. The gaming manufacturer shall submit the Class II gaming system to a GRA approved ITL for testing and certification.

2.1.2. The ITL shall perform the following:

a. Test the submission to the standards established by 25CFR parts 543 and 547, and the GRA.

b. Provide a formal written report setting forth and certifying its findings and conclusions and noting compliance with any established standards.

2.1.3. The ITL's written report shall confirm that the operation of a player interface prototype has been certified that it will not be compromised or affected by

electrostatic discharge, liquid spills, electromagnetic interference, or any other tests required by the GRA.

2.1.4. The GRA shall make a finding that the Class II gaming system conforms to the standards established by the GRA.

3. GRA Compliance of Class II Gaming Systems

3.1. While the Class II gaming system is in use, the Gaming Operation/Gaming Enterprise shall:

3.1.1. Retain copies of the following:

a. The ITL's approval report

b. The GRA's approval of the use of the Class II gaming system

3.1.2. Maintain records identifying the Class II gaming system and its current components

3.2 At least semi-annually, the GRA will verify Class II gaming system software (servers, etc.) against the ITL approval letters, to ensure the software is still viable and approved.

3.3 The manufacturer shall provide specialized equipment or the services of an independent technical expert to assist with the testing, examination, and analysis, if required.

3.4 The GRA shall identify the following:

3.4.1 The Class II gaming systems reviewed

3.4.2 The Class II gaming systems subsequently approved

3.4.3 If a Class II gaming system cannot be approved, the components preventing the approval

3.5 The Gaming Operation/Gaming Enterprise may use a Class II gaming system manufactured before November 10, 2008, if the following requirements are met:

3.5.1 The ITL tested the submission to the standards.

3.5.2 The ITL provided the GRA with a formal written report setting forth and certifying the findings and conclusions of the test.

3.5.3 The GRA made a finding, in the form of a certificate provided to the supplier or manufacturer of the Class II gaming system, that the Class II gaming system is compliant.

3.5.4 The Class II gaming system shall be used as approved by the GRA and the GRA transmitted a notice of approval, identifying the Class II gaming system and its components, to the Board.

3.5.5 Remote communications with the Class II gaming system are only allowed if authorized by the GRA.

3.5.6 Player interfaces of the Class II gaming system shall exhibit information consistent with information required by the GRA.

4. Class II Gaming System Component Repair, Replacement, or Modification

4.1. As permitted by the GRA, individual hardware or software components of a Class II gaming system may be repaired or replaced to ensure proper functioning, security, or integrity of the Class II gaming system.

4.2. Modifications to any Class II gaming system shall be:

4.2.1. Submitted to a GRA approved ITL by the gaming manufacturer

4.2.2. Tested to the submission standards required and approved by the GRA

4.3. The ITL shall:

4.3.1. Provide a formal written report to the Gaming Operation/Gaming Enterprise documenting:

a. Findings

b. Conclusions

c. Compliance with any GRA Standard

4.4. The GRA shall make a finding that the modification shall:

4.4.1. Maintain or advance the Class II gaming system's compliance

4.4.2. Not detract from, compromise, or prejudice the proper functioning, security, or integrity of the Class II gaming system

4.5. A record of the modification and a copy of the ITL report shall be maintained while the modified Class II gaming system is available for play.

4.6. Modification of progressive parameters shall be conducted in a secure manner approved by the GRA. Such parameters may include:

4.6.1. Increment value

4.6.2. Secondary pool increment(s)

4.6.3. Reset amount(s)

4.6.4. Maximum value(s)

4.6.5. Identity of participating player interfaces

4.6.6. The GRA must be notified of any change in parameters prior to the change taking place.

5. Enrolling and Enabling Class II Gaming System Components

5.1. Class II gaming systems shall:

5.1.1. Provide a method to enroll and un-enroll Class II gaming system components

5.1.2. Provide a method to enable and disable specific Class II gaming system components

5.1.3. Ensure that only enrolled and enabled Class II gaming system components participate in gaming

5.1.4. Ensure that the default condition for components must be unenrolled and disabled

6. Class II Technical Hardware Standards

6.1. Printed circuit boards that have the potential to affect the outcome or integrity of the game shall display a unique identifier which shall be updated to reflect new revisions or modifications of the board.

6.2. DIP switches, switches or jumpers on all circuit boards that have the potential to affect the outcome or integrity of any game, progressive award, financial instrument, cashless transaction, cashless ticket transaction, or accounting records shall be capable of being sealed.

6.3. Class II gaming system components accessible to the public shall be constructed so that they exhibit immunity to human body electrostatic discharges on areas exposed to contact. Static discharges of ±15 kV for air discharges and ±7.5 kV for contact discharges shall not cause damage or inhibit operation or integrity of the Class II gaming system.

6.4. Physical enclosures shall be of a robust construction designed to resist determined illegal entry. All protuberances and attachments such as buttons, identification plates, and labels shall be sufficiently robust to prevent unauthorized removal.

6.5. The player interface shall exhibit a serial number, date of manufacture, and include a method or means to:

6.5.1. Display information to a patron

6.5.2. Allow the patron to interact with the Class II gaming system.

6.6. Financial instrument storage components managed by a Class II gaming system and Class II gaming system components that read account access media shall be located within a secure and locked area, cabinet, or housing that is of a robust construction designed to resist determined illegal entry and to protect internal components.

6.6.1. The account access component shall:

a. Be constructed so that physical tampering leaves evidence of such tampering; and

b. Provide a method to enable the Class II gaming system to interpret and act upon valid or invalid input or error condition

6.7. Class II gaming system components that accept/dispense financial instruments, and that are not operated under the direct control of an associate shall:

6.7.1. Be located within a secure and locked area, cabinet, or housing that is of a robust construction designed to resist determined illegal entry and to protect internal components

6.7.2. Be able to detect the entry of valid or invalid financial instruments and to provide a method to enable the Class II gaming system to interpret and act upon valid or invalid input or error condition

6.7.3. Be constructed to permit communication with the Class II gaming system of the accounting information required and applicable provisions of any Commission and GRA regulations governing minimum internal control standards

6.8. No monetary amount related to a valid financial instrument transaction shall be available for play prior to completion of the transaction by the Class II gaming system.

6.9. The monetary amount related to all valid financial instrument transactions by the Class II gaming system shall be recorded as follows:

6.9.1. Time and date

6.9.2. Amount

6.9.3. Interface number

6.9.4. Account number

6.10. Class II gaming system logic components that affect the game outcome shall be located within a secure, locked and tamper-evident area or in a locked cabinet or housing that is of a robust construction designed to resist determined illegal entry and to protect internal components.

6.11. Sequentially numbered, tamper evident tape shall be placed over access sensitive areas.

6.12. The access door(s) to the logic areas shall have a sensor to detect an open door. A door open sensor, and its components or cables, shall be secure against attempts to disable them or interfere with their normal mode of operation.

6.13. The main door, financial instrument acceptor, account access component, and financial instrument storage shall all be keyed separately.

7. Class II Technical Software Standards

7.1. The player interface shall display the following:

7.1.1. The purchase or wager amount

7.1.2. Game results

7.1.3. Any player credit balance

7.2. For the duration of play, or until the patron selects a new game option such as purchase, wager amount, or card selection, whichever is earlier, the player interface shall display:

7.2.1. Total purchase or wager amount and all prizes and total credits won for the last game played

7.2.2. Results for the last game played

7.2.3. Default purchase or wager amount for the next play

7.3. Rules shall be posted for guests and any changes to the rules shall be posted and disclosed to guests.

7.4. The Class II gaming system shall not alter or allow to be altered the card permutations used for play of a Class II game unless specifically chosen by the patron prior to commitment to participate in the game. No duplicate cards shall be sold for any common draw.

7.5. No game play may commence, and no financial instrument or credit may be accepted on the affected player interface, in the presence of any fault condition that affects the outcome of the game, or while in test, audit, or lock-up mode.

7.6. The Class II gaming system shall disable financial instrument acceptance on the affected player interface while in audit mode, except during financial instrument acceptance testing.

7.7. Each player shall initiate his or her participation in the play of a game.

7.8. If an audit mode is provided, for components actively involved in the audit, the Class II gaming system shall:

7.8.1. Provide all accounting functions required

7.8.2. Display player interface identification

7.8.3. Display software version or game identification

7.9. Audit mode shall be accessible by a secure method such as an agent PIN, key, or other auditable access control.

7.10. The last game recall function shall:

7.10.1. Be retrievable at all times, other than when the recall component is involved in during the play of a game, upon the operation of an external key-switch, or entry of an audit card, or a similar method."

7.10.2. Display the results of recalled games as originally displayed or in text representation to clearly identify the sequences and results of the games

7.10.3. Allow the Class II gaming system component providing game recall, upon return to normal game play mode, to restore any affected display to the positions, forms and values displayed before access to the game recall information

7.10.4. Provide the following information for the current and previous four (4) games played and shall display:

a. Play start time, end time, and date

b. The total number of credits at the start of play

c. The purchase or wager amount

d. The total number of credits at the end of play

e. The total number of credits won as a result of the game recalled, and the value in dollars and cents for progressive prizes, if different

7.10.5. For bingo games and games similar to bingo, also display:

a. The card(s) used by the player

b. The identifier of the bingo game played

c. The numbers or other designations drawn, in the order that they were drawn

d. The numbers or other designations and prize patterns covered on each card

e. All prizes won by the player, including winning patterns

f. The unique identifier of the winning card(s)

7.10.6. For pull-tab games only, also display:

a. The result(s) of each pull-tab, displayed in the same pattern as on the tangible pull-tab.

b. All prizes won by the player

c. The unique identifier of each pull tab

d. Any other information necessary to fully reconstruct the current and four (4) previous plays

7.11. If cashless tickets are accepted and/or printed, the Class II gaming system shall have the capacity to:

7.11.1. Display the information specified for the last five (5) cashless tickets or coupons printed and the last five (5) cashless tickets or coupons accepted

7.11.2. Display a complete transaction history for the last five (5) cashless transactions made and the last five (5) cashless transactions accepted

7.12. The manufacturer or developer of the Class II gaming system shall provide to the ITL and to the GRA an industry-standard methodology, acceptable to the GRA, for verifying the Class II gaming system game software.

7.13. Components provided that are actively involved in the test, diagnostic, or demonstration mode shall:

7.13.1. Clearly indicate when that component is in the test, diagnostic, or demonstration mode

7.13.2. Not alter financial data on that component other than temporary data

7.13.3. Only be available after entering a specific mode

7.13.4. Disable credit acceptance and payment unless credit acceptance or payment is being tested

7.13.5. Terminate all mode-specific functions upon exiting a mode

7.14. If multiple games are offered for player selection at the player interface, the player interface shall:

7.14.1. Provide a display of available games

7.14.2. Provide the means of selecting among the available games

7.14.3. Display the full amount of the player's credit balance

7.14.4. Identify the game selected or being played

7.14.5. Not force the play of a game after its selection

7.15. Class II gaming system software shall be designed so that upon resumption following any interruption, the system:

7.15.1. Returns to a known state

7.15.2. Checks for any fault condition

7.15.3. Verifies the integrity of data stored in critical memory

7.15.4. Returns the purchase or wager amount to the player in accordance with the rules of the game

7.15.5. Detects any change or corruption in the Class II gaming system software

7.16. The Class II gaming system component or other progressive controller shall provide a means of creating a progressive balancing report for each progressive link it controls. The report shall provide a balancing of the changes of the progressive amount, including progressive prizes won, for all participating player interfaces versus current progressive amount(s), plus progressive prizes. The report shall account for, and not be made inaccurate by, unusual events such as:

7.16.1. Class II gaming system critical memory clears

7.16.2. Modification, alteration, or deletion of progressive prizes

7.16.3. Offline equipment

7.16.4. Multiple site progressive prizes

7.17. Critical memory is any memory that maintains any of the following data:

7.17.1. Accounting data

7.17.2. Current credits

7.17.3. Configuration data

7.17.4. Last game played recall information

7.17.5. Game play recall information for the current game play, if incomplete

7.17.6. Software state (the last normal state software was in before interruption)

7.17.7. RNG seed(s), if necessary for maintaining integrity

7.17.8. Encryption keys, if necessary for maintaining integrity

7.17.9. Progressive prize parameters and current values

7.17.10. The five (5) most recent financial instruments accepted by type, excluding coins and tokens

7.17.11. The five (5) most recent financial instruments dispensed by type, excluding coins and tokens

7.17.12. The five (5) most recent cashless transactions paid, and the five most recent cashless transactions accepted

7.18. Critical memory shall be maintained using a methodology that enables errors to be identified and acted upon. All accounting and recall functions shall be verified as necessary to ensure their ongoing integrity.

7.19. The validity of affected data stored in critical memory shall be checked after each of the following events:

7.19.1. Every restart

7.19.2. Each attendant paid win

7.19.3. Each attendant paid progressive win

7.19.4. Each sensored door closure

7.19.5. Every reconfiguration, download, or change of prize schedule or denomination requiring operator intervention or action

7.20. Class II gaming systems that use a logon or other means of secured access shall include a user account lockout after a predetermined number of consecutive failed attempts to access the Class II gaming system.

8. Class II System Critical Events

8.1. The following are fault events that shall be recorded by the Class II gaming system, definition, and action to be taken:

8.1.1. Component Fault – Reported when a fault on a component is detected. When possible, this event should indicate what the nature of the fault is.

8.1.2. Financial Storage Component full – Reported when a financial instrument acceptor or dispenser includes storage, and it becomes full. This event message must indicate what financial storage component is full.

8.1.3. Financial Output Component Empty – Reported when a financial instrument dispenser is empty. The event message must indicate which financial output component is affected, and whether it is empty.

8.1.4. Financial Component Fault – Reported when an occurrence on a financial component results in a known fault state.

8.1.5. Critical Memory Error – Some critical memory error has occurred. When a non-correctable critical memory or error has occurred, the data on the Class II gaming system component can no longer be considered reliable. Accordingly, any game play on the affected component must cease immediately, and an appropriate message must be displayed, if possible.

8.1.6. Progressive Communication Fault – If applicable, when communications with a progressive controller component is in a known fault state.

8.1.7. Program Storage Medium Fault – The software has failed its own internal security check or the medium itself has some fault. Any game play on the affected component must cease immediately, and an appropriate message must be displayed, if possible.

8.2. Upon clearing any event the Class II gaming system shall:

8.2.1. Record that the fault condition has been cleared

8.2.2. Ensure the integrity of all related accounting data

8.2.3. Return a player's purchase or wager according to the rules of the game, if applicable

8.3. The Class II gaming system shall perform the following for any component affected by any sensored door open event:

8.3.1. Indicate that the state of a sensored door changes from closed to open or opened to closed

8.3.2. Disable all financial instrument acceptance, unless a test mode is entered

8.3.3. Disable game play on the affected player interface

8.3.4. Disable player inputs on the affected player interface, unless test mode is entered

8.3.5. Disable all financial instrument disbursement, unless a test mode is entered

8.4. The Class II gaming system shall return the component to a ready-to-play state when all sensored doors are closed.

8.5. Non-fault events shall be acted upon as described below, if applicable:

8.5.1. Player Interface Off During Play – indicates power has been lost during game play. This condition must be reported by the affected component(s).

8.5.2. Player Interface Power On – Indicates the player interface has been turned on. This condition must be reported by the affected component(s).

8.5.3. Financial Instrument Storage Component Container/Stacker Removed – Indicates that a financial instrument storage container has been removed. The event message must indicate which storage container was removed.

9. Class II System Accounting Functions

9.1. The following accounting data shall be maintained by the Class II gaming system:

9.1.1. Amount In: The total value of all financial instruments and cashless transactions accepted by the Class II gaming system. Each type of financial instrument accepted by the Class II gaming system must be tracked independently per financial instrument acceptor, and as required by applicable GRA regulations.

9.1.2. Amount Out: The total value of all financial instruments and cashless transactions paid by the Class II gaming system, plus the total value of attendant pay. Each type of financial instrument paid by the Class II Gaming System shall be tracked independently per financial instrument dispenser, and as required by applicable GRA regulations.

9.1.3.

9.2. Accounting data that rolls over to zero shall not corrupt data.

9.3. Accounting function data shall be accessible by an associate at any time, except during:

9.3.1. A payout

9.3.2. A hand pay

9.3.3. Play

9.4. Any credit balance maintained at the player interface shall be displayed at all times except:

9.4.1. In audit, configuration, recall, and test modes

9.4.2. Temporarily, during entertaining displays of game results

9.5. Progressive prizes may be added to the patron's credit balance if:

9.5.1. The patron credit balance is maintained in dollars and cents

9.5.2. The progressive accounting data is incremented in number of credits

9.5.3. The prize in dollars and cents is converted to player credits or transferred to the patron's credit balance in a manner that does not mislead the player or cause accounting imbalances

9.6. If the player credit balance displays in credits, but the actual balance includes fractional credits, the Class II gaming system shall display the fractional credit when the player credit balance drops below one credit.

10. Class II Electronically Maintained Accounting Data

10.1. If the Class II gaming system accounting data is electronically maintained, the following standards apply:

10.1.1. Accounting data shall be stored with at least eight (8) decimal digits

10.1.2. Credit balances shall have sufficient digits to accommodate the design of the game

10.1.3. Accounting data displayed to the patron may be incremented or decremented using visual effects, but the internal storage of this data shall be immediately updated in full

10.1.4. Accounting data shall be updated as relevant accounting events occur

10.1.5. Modifications to accounting data shall be recorded, including the identity of the associate(s) making the modifications, and be reportable by the Class II gaming system

11. Class II Money and Credit Handling

11.1. The Class II gaming system shall:

11.1.1. Register the correct number of credits on the player's credit balance upon acceptance.

11.1.2. Reject financial instruments deemed invalid

11.2. Patrons shall be allowed to cash out and/or redeem those cashable credits at the player interface except when the player interface is:

11.2.1. Involved in the play of a game

11.2.2. In audit mode, recall mode, or any test mode

11.2.3. Detecting any sensored door open condition

11.2.4. Updating the player credit balance or total win accounting data

11.2.5. Displaying a fault condition that would prevent cash-out or credit redemption. In this case a fault indication must be displayed

11.3. For cashable credits not on a player interface, the player must be allowed to cash out and/or redeem those credits at any time. Credits must be in the player's deposit account in order to be cashed out.

11.4. A Class II gaming system shall not automatically pay an award subject to mandatory tax reporting or withholding.

11.5. Credit redemptions by cashless tickets shall conform to the following:

11.5.1. A Class II gaming system may redeem credits by issuing a cashless ticket or coupon when the system has validated the cashless ticket or coupon.

11.5.2. A Class II gaming system that redeems credits by issuing cashless tickets and coupons shall either:

a. Maintain an electronic record of all information

b. Generate two (2) identical copies of each cashless ticket or coupon issued, one to be provided to the player and the other to be retained within the electronic player interface for audit purposes.

11.6. Valid cashless tickets and coupons from a cashless ticket system shall contain the following:

11.6.1. Gaming Operation/Gaming Enterprise name and location

11.6.2. The identification number of the Class II gaming system component or the player interface number, as applicable

11.6.3. Date and time of issuance

11.6.4. Dollar amount (alpha and numeric)

11.6.5. Sequence number

11.6.6. Unique validation number that prevents prediction of subsequent validation numbers

11.6.7. A bar code or other form of machine-readable representation of the validation number that ensures 99.9% of all misreads are flagged as errors

11.6.8. Transaction type or other method of differentiating cashless ticket and coupon types

11.6.9. Expiration period or date

11.7. Transfers from an account shall not exceed the balance of that account.

11.8. The Class II gaming system shall reject any transfers from cashless ticket systems or cashless systems that are not even multiples of the Class II gaming system denomination

11.9. Cashless ticket systems shall include the ability to report redemptions per redemption location or user.

12. Downloading on a Class II Gaming System

12.1. Downloads are an acceptable means of transporting approved content, including, but not limited to:

12.1.1. Software

12.1.2. Files

12.1.3. Data

12.1.4. Prize schedules

12.2. Downloads shall:

12.2.1. Use secure methodologies that deliver the download data without alteration or modification

12.2.2. Not affect the integrity of accounting data

12.3. Downloads conducted during operational periods shall be performed in a manner that will not affect game play.

12.4. The Class II gaming system shall be capable of providing the:

12.4.1. Time and date of the initiation and completion of the download

12.4.2. Class II gaming system components to which software was downloaded

12.4.3. Version(s) of download package and any software downloaded. Logging of the unique software signature will satisfy this requirement

12.4.4. Outcome of any software verification following the download (success or failure)

12.4.5. Login identifier of any associate(s) conducting or scheduling a download

12.5. Downloaded software on a Class II gaming system shall be capable of being verified, using an ITL software signature verification method, at the request of the GRA.

12.5.1 Following download of any Class II gaming system software, the Class II gaming system shall verify the downloaded software using a software signature verification method approved by the GRA.

12.5.2 The GRA shall confirm the verification using any method it deems appropriate.

13. Class II Program Storage Media

13.1. All removable program storage media shall maintain an internal checksum or signature of its contents.

13.1.1. Verification shall be performed after every restart. If the verification fails, the affected Class II gaming system component(s) shall lock up and enter a fault state.

13.2. All EPROMs and Programmable Logic Devices that have erasure windows shall be fitted with covers over their erasure windows.

13.2.1. All unused areas of EPROMs shall be written with one (1) of the following:

a. The inverse of the erased state (zero bits (00 hex) for most EPROMs)

b. Random data

c. Repeats of the program data

13.2.2. Flash memory storage components intended to have the same logical function as ROM, shall be write-protected or otherwise protected from unauthorized modification.

13.2.3. The write cycle shall be closed or finished for all CD-ROMs such that it is not possible to write any further data to the CD.

13.2.4. Write protected hard disks are permitted if:

a. The hardware means of enabling the write protect is easily viewable and can be sealed in place

b. The write protection software is verifiable by an ITL

13.3. Writable and rewritable program storage, such as hard disk drives, flash memory, writable CD-ROMs, and writable DVDs, may be used provided that the software has been verified by an ITL.

13.3.1. Program storage shall be structured so there is a verifiable separation of fixed data (such as program, fixed parameters, DLLs) and variable data.

13.4. All program storage media that is not rewritable in circuit, (EPROM, CD-ROM) shall be uniquely identified, displaying:

13.4.1. Manufacturer

13.4.2. Program identifier

13.4.3. Program version number(s)

13.4.4. Location information, if critical (socket position 3 on the printed circuit board)

14. Electronic Random Number Generation (RNG)

14.1. If the Gaming Operation/Gaming Enterprise uses a random number generator (RNG) for the bingo draw, the RNG shall be in compliance with these standards.

14.2. All RNGs shall produce output having the following properties:

14.2.1. Statistical randomness

14.2.2. Unpredictability

14.2.3. Non-repeatability

14.3. Numbers or other designations produced by a RNG shall:

14.3.1. Be statistically random individually and in the permutations and combinations used in the game

14.3.2. Pass the statistical tests for randomness to a 99% confidence level, which may include:

a. Chi-square test

b. Runs test (patterns of occurrences must not be recurrent)

c. Serial correlation test potency and degree of serial correlation (outcomes must be independent from the previous game)

d. Equi-distribution (frequency)

e. Gap test

f. Poker test

g. Coupon collector's test

h. Permutation test

i. Spectral test

j. Test on subsequences

14.4. Predicting future outputs of an RNG shall not be feasible, even if the algorithm and the past sequence of outputs are known.

14.4.1. Unpredictability must be ensured by reseeding or by continuously cycling the RNG, and by providing a sufficient number of RNG states for the applications supported.

14.4.2. Re-seeding may be used where the re-seeding input is at least as statistically random as, and independent of, the output of the RNG being re-seeded.

14.5. The RNG shall not be initialized to reproduce the same output stream that it has produced before, nor may any two instances of an RNG produce the same stream as each other. This property shall be ensured by initial seeding that comes from:

14.5.1. A source of “true” randomness, such as a hardware random noise generator

14.5.2. A combination of timestamps, parameters unique to the Class II gaming system, previous RNG outputs, or other, similar method.

14.6. Software that calls an RNG to derive game outcome events shall immediately use the output returned in accordance with the game rules.

14.7. The use of multiple RNGs is permitted.

14.8. RNG outputs shall not be arbitrarily discarded or selected.

14.9. If a sequence of outputs is required, the sequence in the order generated shall be used in accordance with game rules.

14.10. The Class II gaming system shall not:

14.10.1. Adjust the RNG process or game outcomes based on the history of prizes obtained in previous games

14.10.2. Use any reflexive software or secondary decision that affects the results shown to the player or game outcome.

14.11. An RNG that provides output scaled to given ranges shall:

14.11.1. Be independent and uniform over the range

14.11.2. Provide numbers scaled to the ranges required by game rules, and may discard numbers that do not map uniformly onto the required range but must use the first number in sequence that does map correctly to the range

14.11.3. Be capable of producing every possible outcome of a game according to its rules

14.11.4. A scaling algorithm is considered to be unbiased if the measured bias is no greater than 1 in 50 million.

15. Class II Electronic Data Communications between System Components

15.1. Communication of sensitive data shall be secure from eavesdropping, access, tampering, intrusion, or alteration unauthorized by the GRA. Sensitive data includes, but is not limited to:

15.1.1. RNG seeds and outcomes

15.1.2. Encryption keys, where the implementation chosen requires transmission of keys

15.1.3. PINs

15.1.4. Passwords

15.1.5. Financial instrument transactions

15.1.6. Transfers of funds

15.1.7. Player tracking information

15.1.8. Download packages

15.1.9. Any information that affects game outcome

15.2. Wireless communications shall be secured using a methodology that makes eavesdropping, access, tampering, intrusion, or alteration impractical. Such methodologies include but are not limited to:

15.2.1. Encryption

15.2.2. Frequency hopping

15.2.3. Code division multiplex access (as in cell phone technology).

15.3. Wireless access points shall not be accessible to the public.

15.4. Open or unsecured wireless communications are prohibited.

15.5. Data shall be transferred by a reliable method that provides a reasonable ability to detect and act upon any corruption of data.

15.6. Class II gaming systems shall record detectable:

15.6.1. Unauthorized access attempts

15.6.2. Intrusion attempts

15.7. Remote communications shall be allowed if authorized by the GRA. Class II gaming systems shall have the ability to enable or disable remote access, and the default state shall be set to disabled.

15.8. Failure of data communications shall not affect the integrity of critical memory.

15.9. Data communications between sensitive Class II gaming system components shall be logged by the Class II gaming system during:

15.9.1. The establishment

15.9.2. The loss

15.9.3. The re-establishment

16. Class II Game Artwork, Glass, and Rules

16.1. The following shall be displayed at all times or made available to the patron upon request:

16.1.1. Game name, rules, and options (i.e. purchase or wager amount, stated clearly)

16.1.2. Denomination

16.1.3. Instructions for play on, and use of, the player interface, including the functions of all buttons

16.1.4. A prize schedule or other explanation, sufficient to allow a player to determine the correctness of all prizes awarded, including:

a. The range and values obtainable for any variable prize

b. If the value of a prize depends on the purchase or wager amount

c. The means of division of any pari-mutuel prizes

i. The prize schedule or other explanation need not state that subsets of winning patterns are not awarded as additional prizes (for example, five in a row does not also pay three in a row or four in a row). Exceptions shall be clearly stated.

16.2. The Player Interface shall continually display:

16.2.1. “Malfunctions void all prizes and plays” or an equivalent

16.2.2. “Actual Prizes Determined by Bingo (or other applicable Class II game) Play. Other Displays for Entertainment Only” or an equivalent.

16.3. If the odds of winning any advertised top prize exceeds 100 million to one (1), the Player Interface shall display: “Odds of winning the advertised top prize exceeds 100 million to one” or an equivalent.

History

Approved by the Gaming Regulatory Authority Board on November 6, 2025. Effective date January 1, 2026.