the Chickasaw Nation

Bill Anoatubby, Governor
Jefferson Keel, Lt. Governor

Office of the Gaming Commissioner

January 12, 2010

Subject: Technical Standards of the Chickasaw Nation Office of the Gaming Commissioner

Dear Sir or Madam:

Enclosed is a copy of the Technical Standards of the Chickasaw Nation Gaming Commissioner which will become effective on January 15, 2010. Please consider this as your notice that the standards currently found in Chapter V, Section 6 of the Gaming Commissioner's Regulations are repealed and replaced by the new Technical Standards as of the effective date.

These Technical Standards are adopted with the purpose of ensuring the ability to test criterion which has an impact on the credibility and integrity of gaming within Chickasaw Nation gaming facilities, as well as, ensuring fairness, security, correct operation and the ability to audit gaming systems, equipment and other critical gaming components in use within Chickasaw Nation gaming facilities. The Technical Standards consist of six documents in a chapter and section format which set forth the requirements of the Gaming Commissioner in the areas of electronic games, online monitoring systems, cashless wagering systems, bonusing devices and systems, promotional devices and systems and progressive systems.

In addition to compliance with these Technical Standards, please be aware that you are still required to comply with any applicable technical standards in the Chickasaw Nation-State of Oklahoma Compact, as Approved by the Secretary of Interior and published in the Federal Register on the 8th day of February 2005, Volume 70, Number 25, Page 5725; Technical Standards for Oklahoma Tribes Version 2.0 and/or NIGC Minimum Internal Control Standards (MICS) not included within these Technical Standards.

Should you have any questions regarding the Technical Standards, please contact me at (580) 310-0570. Thank you for your prompt attention to this matter.

Best regards,

Matthew L. Morgan
Gaming Commissioner

1500 North Country Club Road · PMB 228, 902 Arlington Center · Ada, OK 74820 · 580-310-0570 · Fax 580-310-0571

UNITED WE THRIVE

Table of Contents

OVERVIEW OF STANDARDS

OVERVIEW
Purpose of Standards 2
Integration and Approval Process 2
Test Scripts and Standards Reviewed 3

OVERVIEW OF STANDARDS

OVERVIEW

PURPOSE OF STANDARDS

Adoption of Standards

The Chickasaw Nation Gaming Commissioner (Commissioner) adopts the standards herein for the following purposes

a. To test the criteria which impacts the credibility and integrity of gaming from the revenue collection and game play point of view:
b. To ensure that systems, electronic games, program storage media, equipment, software or other critical electronic gaming components which impact the credibility and integrity of gaming within Chickasaw Nation operated gaming facilities are fair, secure and able to be audited and operated correctly.

This overview of standards covers the following Commissioner standards:

Chapter 1 - Electronic Game Standards
Chapter 2- Online Monitoring System (OMS) Standards
Chapter 3- Cashless Wagering System Standards
Chapter 4- Bonusing Device and System Standards
Chapter 5- Promotional Device and System Standards
Chapter 6- Progressive System Standards

In addition to compliance with these specific Technical Standards note, please be aware that any applicable technical standards in the Chickasaw Nation-State of Oklahoma Compact , as Approved by the Secretary of Interior and published in the Federal Register on the 8th day of February 2005, Volume 70, Number 25, Page 5725; Technical Standards for Oklahoma Tribes Version 2.0 and/or NIGC Minimum Internal Control Standards (MICS) not included within these Technical Standards are still required to be met.

INTEGRATION AND APPROVAL PROCESS

Integration and Approval Phases

Unless otherwise specifically directed by the Commissioner, effective immediately the approval and integration of all items referenced within these standards that are to be utilized within Chickasaw Nation operated gaming facilities shall be approved in three different phases:

a. An Commissioner approved and ISO accredited independent testing laboratory (ITL) will review, test and certify the integrity of the systems, electronic games, program storage media, equipment, software or other critical electronic gaming components which impact the credibility and integrity of gaming, which includes but is not limited to, new, upgrades, patches or other system/game/hardware/software modifications, to the standards set forth by the Commissioner, Oklahoma Tribal State Compact Standards, National Indian Gaming Commission (NIGC) Standards and any other Standard adopted by the Commissioner;
b. Items shall be processed through the Chickasaw Nation operated test lab for communication and setup testing and interoperability prior to implementation within Chickasaw Nation operated gaming facilities; and
c. On-Site implementation of an item(s) for a Chickasaw Nation operated gaming facility shall require a percentage of the game floor to be tested as directed by the Commissioner for communication and set up prior to full implementation of any systems, electronic games, program storage media, equipment, software or other critical electronic gaming components which impact the credibility and integrity of gaming.

TEST SCRIPTS AND STANDARDS REVIEWED

References

GLI-11 Standards for Gaming Devices in Casinos (V2.0)

GLI-13 Standards for On-Line Monitoring and Control Systems (MCS) and Validation Systems in Casinos (V2.0)

BMM System Test Script Version 1.1 <C9-359>

GLI-18 Standards for Promotional System in Casinos

GLI-16 Standards for Cashless Systems in Casinos

GLI-17 Standards for Bonusing System in Casinos

Nevada Gaming Control Board Regulations and Technical Standards

New Jersey Casino Control Commission Regulations

Pennsylvania Gaming Control Board Regulations

Table of Contents

CHAPTER 1 ELECTRONIC GAME STANDARDS

SECTION 1-1 ELECTRONIC GAME

1-1.1 Electronic Game Requirements 3
1-1.2 Electronic Game Hardware Requirements 4
1-1.3 Cabinet Wiring 4
1-1.4 Electronic Game Identification 4
1-1.5 Tower Lighting Requirements 5
1-1.6 Power Supply Manipulation 5
1-1.7 External Doors and Compartment Requirements 5
1-1.8 Logic Area Requirements 6
1-1.9 Financial Instrument Compartment Requirements 7
1-1.10 Memory Requirements 7
1-1.11 Contents of Critical Memory Requirements 8
1-1.12 Critical Memory Maintenance 9
1-1.13 Unrecoverable Critical Memory 9
1-1.14 Program Storage Media Requirements 9
1-1.15 Mechanical Display of Game Outcomes 11
1-1.16 Video/Touch Screen 12
1-1.17 Financial Instrument Acceptance Methods 12
1-1.18 Electronic Game Metering of Financial Instrument Validator Events 14
1-1.19 Acceptable Financial Instrument Validator Locations 14
1-1.20 Financial Instrument Validator Stacker Requirements 15
1-1.21 Redemption of Credit 15
1-1.22 Financial Output Device Requirements 15
1-1.23 Ticket/Voucher Validation 16
1-1.24 Ticket/Voucher Information 17
1-1.25 Issuance and Redemption of Ticket/Voucher 18
1-1.26 Electronic Game Display Requirements 18
1-1.27 Game Cycle of An Electronic Game 20

SECTION 1-2 RANDOM NUMBER GENERATOR

1-2.1 Random Number Generator Requirements 20

SECTION 1-3 PAYOUT PERCENTAGES, ODDS AND NON-CASH AWARDS

1-3.1 Payout Percentage, Odds and Merchandise Prize Requirements 22

SECTION 1-4 BONUS GAMES
1-4.1 Bonus Game Requirements 23

SECTION 1-5 MYSTERY AWARDS
1-5.1 Mystery Award Requirements 24

SECTION 1-6 ELECTRONIC GAMES WITH MULTIPLE GAMES
1-6.1 Electronic Games Which Offer Multiple Games 25

SECTION 1-7 ELECTRONIC METERING
1-7.1 Electronic Metering Within the Electronic Game 26

SECTION 1-8 MISCELLANEOUS ELECTRONIC GAME REQUIREMENTS
1-8.1 Communication Protocol 31
1-8.2 Error Conditions 31
1-8.3 Program Interruption and Resumption 32
1-8.4 Door Open/Close 34
1-8.5 Taxation Reporting Limits 34
1-8.6 Test/Diagnostic Mode (Demo Mode) 34
1-8.7 Game History Recall 35
1-8.8 Software/Program Storage Media Verification 36

CHAPTER 1
ELECTRONIC GAME STANDARDS

SECTION 1-1 ELECTRONIC GAME

Introduction

The Chickasaw Nation Office of the Gaming Commissioner (Commissioner) sets forth these Electronic Game Standards to govern the operation of both Class II and Class III gaming systems. At a minimum, the Class II Gaming Systems will be required to meet the requirements set forth in the Class II Technical requirements and applicable sections of the Tribal Internal Control Standards (TICS). Class II Gaming Systems will be required to meet the requirements set forth herein where the requirements are not in conflict of the Class II Technical Standards. In the event that there is a conflict, the Class II Technical Standards and applicable sections of the Tribal Internal Control Standards (MICS) shall supersede.

1-1.1 ELECTRONIC GAME REQUIREMENTS

1-1.1.1 Electronic Games and Safety of Patron

Mechanical or electrical parts and design principals of the electronic game should not subject a patron to any physical hazards. The electronic game shall be robust enough to resist forced illegal entry. It is the responsibility of the manufacturer/vendor to have required testing conducted for safety and Electromagnetic Compatibility (EMC) prior to submission of the electronic game to an ITL for review and certification.

1-1.1.2 Environmental Effect on Electronic Game Integrity

An ITL will conduct certain testing to determine if outside influences affect electronic game fairness to the player or create cheating opportunities. The Commissioner reserves the right to request in writing from an ITL, any tests performed but not included within the lab certification. The electronic game shall withstand the following tests and resume electronic game play without any operator intervention:

a. Random Number Generator (RNG): The RNG and random selection process shall be resistant to influences from outside the device, including but not limited to,

electro-magnetic interference, electro-static interference and radio frequency interference; and

b. Electron-Static Interference: Electronic game protection against static discharges requires that the conductive cabinets are housed in such a way that static discharge energy shall not damage or hinder the normal operation of the electronic or other components within the electronic game.

1-1.2 ELECTRONIC GAME HARDWARE REQUIREMENTS

1-1.2.1 Hardware Requirements

An electronic game shall meet the following hardware requirements:

a. Microprocessor controlled: Each electronic game shall be controlled by one or more microprocessors or equivalent in such a manner that the game outcome is completely controlled by the microprocessor or a mechanical device (e.g., RNG). The RNG can be stored either locally on the electronic game or remotely on a server based product (Class II).

b. On/Off Switch: Each electronic game shall have an on/off switch that controls the electrical current and shall be located in a readily accessible place within the interior of the electronic game so that power cannot be disconnected from outside of the electronic game. The on/off switch shall be clearly labeled.

c. Climate: Electronic games are expected to operate in a variety of extreme environments. If an electronic game exceeds operational parameters and cannot operate properly, the electronic game shall perform a shutdown without any loss of game status, accounting or security event information.

1-1.3 CABINET WIRING

1-1.3.1 Cabling

An electronic game shall be designed so that power and data cabling that enters and exits the electronic game are routed so that they are not accessible to the public. Security-related wires and cables that are routed into a logic area shall not be easily removable.

1-1.4 ELECTRONIC GAME IDENTIFICATION

1-1.4.1 Electronic Game Identification

The manufacturer/vendor is responsible for affixing a permanent identification label on the exterior of each electronic game. The label shall include the following information:

a. Manufacturer;
b. Unique serial number;
c. Electronic game model number; and
d. Manufacture date.

1-1.5 TOWER LIGHTING REQUIREMENTS

1-1.5.1 Tower Light

Each electronic game shall have a conspicuously located light on the top that will automatically illuminate when a patron has won an amount, is redeeming credits that the electronic game cannot pay due to the occurrence of an error condition or has initiated a "Call Attendant" condition. This requirement may be substituted for an audible alarm at the discretion of the manufacturer/vendor.

1-1.6 POWER SUPPLY MANIPULATION

1-1.6.1 Power Surge

Other than resets, an electronic game shall not be negatively affected by surges or dips of ± 20% of the supply voltage. It is acceptable for the equipment to reset, provided there is no damage to the equipment or loss or corruption of data.

1-1.7 EXTERNAL DOORS AND COMPARTMENT REQUIREMENTS

1-1.7.1 Requirements

The following items are general requirements for electronic game external doors and compartments:

a. An electronic game door shall be locked and monitored by door access sensors. When the game door is opened, the game shall cease, disable all acceptance and

enter an error condition as approved by the Commissioner. If an on-line monitoring system is utilized, an error message shall also be sent to the system;

b. An electronic game shall be designed to resist entry of objects when the seal between the cabinet and the door is locked;

c. When the electronic game door is shut, the electronic game shall not be illegally accessed via an inserted device that will disable a door open sensor without leaving evidence of tampering;

d. Each electronic game door shall be manufactured of materials that are suitable for allowing only legitimate access to the inside of the electronic game; and

e. When an electronic game door is moved from its fully closed and locked position, the sensor system shall register such movement as a door being opened.

1-1.8 LOGIC AREA REQUIREMENTS

1-1.8.1 Logic Area

An area within an electronic game which houses electronic components that influence game operation shall be located within a separate area of the electronic game known as the "Logic Area." More than one "Logic Area" may be located within an electronic game, but any "Logic Area" is required to be separately locked.

1-1.8.2 Electronic Game Critical Components

Electronic components housed within the electronic game logic area are known as "Electronic Game Critical Components." Electronic game critical components in non-server based implementations are required to be housed within the electronic game logic area include, but are not limited to, the following:

a. Communication controller electronics and those components housing the communication program storage device;

b. Back-up device; and

c. Central Processing Units (CPU)s and any other program storage device containing software which may affect the integrity of:

   i. Operation and calculation of electronic game play;

   ii. Electronic game accounting and revenue;

   iii. System communication; and

   iv. Peripheral firmware which significantly influence:

1. Operation and calculation of electronic game play;
2. Electronic Game display;
3. Electronic game result determination;
4. Electronic game accounting and revenue; or
5. Security.

1-1.9 FINANCIAL INSTRUMENT COMPARTMENT REQUIREMENTS

1-1.9.1 Financial Instrument Compartments

Financial instrument compartments shall be locked separately from the main cabinet area.

1-1.9.2 Access to Financial Instruments

Access to the financial instrument storage area is to be secured via separate key locks and shall be fitted with sensors which indicate door open/close or stacker removed. Access to the financial instrument storage area must be protected by two levels of locks.

1-1.10 MEMORY REQUIREMENTS

1-1.10.1 Non-Volatile RAM

The following are requirements for non-volatile RAM used to store program memory for an electronic game within Chickasaw Nation operated gaming facilities:

a. An electronic game shall have the ability to retain data for the electronic game meters and shall be capable of maintaining the accuracy of all required information for thirty (30) days after power is discontinued to the electronic game;
b. If an electronic game utilizes the battery back-up as an "off chip" battery source, it shall re-charge itself to its full potential in a maximum of twenty-four (24) hours and have a shelf life of at least five (5) years;
c. An electronic game with random access memory that utilizes an off-chip back-up power source to retain its contents when the main power is switched off, shall have a detection system to provide a method for software to interpret and act upon a low battery condition; and
d. Clearing of non-volatile memory shall require access to the locked logic area.

1-1.10.2 RAM Reset

Following the initiation of a RAM reset procedure, the electronic game program shall execute a routine which initializes each and every bit in RAM to the default state. For electronic games that allow for partial RAM clears, the methodology utilized must be accurate and the electronic game must validate the un-cleared portions of RAM.

1-1.10.3 Electronic Game Reel Position and Display

For an electronic game in which RAM reset is conducted, the default reel position or electronic game display shall not be the top award on any selectable line. Additionally, the default electronic game display, upon entering electronic game play mode, shall not be the top award.

1-1.10.4 Electronic Game Configuration Settings

No changes shall be possible for configuration settings that cause an obstruction to the electronic game accounting meters without a RAM clear, with the exception of changing the denomination. Denomination changes must be performed by a secure means as approved by the Commissioner.

1-1.10.5 Program Storage Media Identification

All program storage media shall be clearly marked with sufficient information to identify the software and revision level of the information stored.

1-1.11 CONTENTS OF CRITICAL MEMORY REQUIREMENTS

1-1.11.1 Critical Memory

Critical memory used to store all data considered to be vital to the continued operation of an electronic game, includes but is not limited to the following:

a. All electronic game meters;
b. Current credits;
c. Electronic game configuration data;
d. Information pertaining to the last ten plays with the RNG outcome and the current game if incomplete; and
e. Software state, which includes, but is not limited to:
    i. Last normal state;

ii. Last status; or
iii. Tilt status before interruption.

1-1.12 CRITICAL MEMORY MAINTENANCE

1-1.12.1 Critical Memory Storage

Storage of critical memory shall be maintained by a method that enables errors to be identified and corrected. This method can involve signatures, checksum, partial checksum, multiple copies, timestamps and/or effective use of validity codes.

1-1.12.2 Critical Memory Checks

For each electronic game restart, a comprehensive check of the integrity of all critical memory shall be conducted.

1-1.12.3 Control Program

The control program shall allow for the electronic game to ensure the integrity of all control program components during execution.

1-1.12.4 Program Storage Media

All program storage media in the executable address space of a main processor shall be validated and checked for corruption during the following conditions:

a. All processor resets; and
b. Initial loading of files for use, even if only partially loaded.

1-1.13 UNRECOVERABLE CRITICAL MEMORY

1-1.13.1 Unrecoverable Corruption

A RAM error shall result for an electronic game with an unrecoverable corruption of RAM. Authorized individuals shall perform a full RAM clear for an unrecoverable RAM error.

1-1.14 PROGRAM STORAGE MEDIA REQUIREMENTS

1-1.14.1 Program Storage Media

All program storage media shall comply with the following:

a. Program storage media shall only be accessible through the locked logic compartment and shall be clearly marked with sufficient information to identify the software and revision level of the information stored.
b. Ability to perform an integrity check and authenticate all critical files or program code which operate on the electronic game during the following:
   i. All processor resets; and
   ii. Initial loading of files or program code, which includes partial loading.
c. Programs which reside in the electronic game shall be contained in a storage medium which cannot alter itself autonomously through use of the circuitry or programming of the electronic game. Alterations may only be performed via a secure means by an authorized person; and
d. Housed within a locked logic compartment.

1-1.14.2 Non-Writable Program Storage Media

For program storage media that can only be written to once, the following rules shall apply:

a. CD-ROM specific based program storage media shall:
   i. Not be a re-writable disk; and
   ii. The "session" shall be closed to prevent any further writing.
b. Program storage media that is non-EPROM specific, which includes CD-ROM, shall comply with following rules:
   i. Authentication conducted by the control program shall authenticate all critical files by employing a hash algorithm which produces a signature certified by an ITL and agreed upon by the Commissioner;
   ii. Authenticated signature shall be stored on a memory device within the electronic game; and
   iii. A signature which resides on any other medium shall be encrypted, using a public/private key algorithm; or
   iv. Equivalent encrypted algorithm with similar security certified by the ITL and approved by the Commissioner.
c. Authentication shall be conducted by the electronic game for all critical files against the stored signatures as required. In the event of a failed authentication, after an electronic game has been powered up, the electronic game should immediately enter an error condition with appropriate tower light signal and display an appropriate error message. The electronic game shall display specific error information and shall not have the ability to clear until the file

authenticates properly following operator intervention or the medium is replaced or corrected, the electronic game's memory is cleared, the electronic game is restarted and files are authenticated correctly. If the electronic game does not capture the details including date and time of the error in an electronic log, then internal controls shall be established to record this information manually.

NOTE: Internal Controls established for this part shall be subject to Commissioner approval.

1-1.14.3 Writable Program Storage Media

Programs residing on the electronic game which are capable of being erased and/or reprogrammed without being removed from the electronic game or other equipment or related device shall meet the following requirements:

a. In general, program storage media which is re-programmable shall only be written to when the media contains only data, files and programs that are not critical to the basic operation of the electronic game.
b. As an exception, such device may write to media containing critical data, files, and programs provided that the gaming equipment:
   i. Maintains a log of all the following information stored on the media:
      1. Addition;
      2. Deletion; and
      3. Modification.
   ii. Verifies the validity of all data, files, and programs which reside on the media using the methodology listed within this section for Non-EPROM specific requirements;
      1. Contain appropriate security to prevent unauthorized modification; and
      2. Not allow electronic game play while the media containing the critical data, files and programs are in a modifiable state.

1-1.15 MECHANICAL DISPLAY OF GAME OUTCOMES

1-1.15.1 Mechanical Display

For an electronic Class III games that has mechanical or electro-mechanical devices which are used for displaying a game outcome, the following rules shall apply:

a. Electro-mechanical controlled devices (e.g., reels) shall have a sufficiently closed loop of control so as to enable the software to detect a malfunction and/or any attempt to interfere with correct operation of the device. Therefore, if a reel is not in the correct position, an error condition will be generated;
b. Mechanical assemblies (e.g., reels) shall have a mechanism that ensures the correct mounting of the assembly;
c. Displays shall be constructed in such a way that the winning symbol combinations match with pay lines or other indicators; and
d. Mechanical assembly shall be designed so there is no obstruction by any other component.
e. Mechanical Reels for Class II games are utilized as 'Entertaining Displays' only and have no impact on the outcome of the game. However, the operation of the mechanical reels for Class II games shall adhere to the Class II Technical requirements.

1-1.16 VIDEO MONITOR OR TOUCH SCREEN

1-1.16.1 Video or Touch Screen

All electronic games which utilize a video monitor or touch screen shall meet the following requirements:

a. Touch screens shall be accurate and once calibrated shall maintain its accuracy for, at least, the recommended maintenance period of the manufacturer;
b. Touch screens should be able to be re-calibrated without accessing the logic area(s); and
c. Unless the game rules provide for such, there shall be no hidden or undocumented buttons/touch points that affect game play anywhere on the screen.

1-1.17 FINANCIAL INSTRUMENT ACCEPTANCE METHODS

1-1.17.1 Financial Instrument Acceptors

All paper financial instrument acceptors shall be able to detect the entry of valid bills, coupons, ticket/vouchers or other applicable approved financial instruments. The financial instrument acceptor shall provide a method to enable the electronic game software to interpret and act appropriately upon a valid or invalid input. The financial Instrument acceptor shall be

electronically-based and configured to ensure it only accepts valid bills and legal tender. A financial Instrument validator can accept coupons, ticket/vouchers or other approved notes. It must reject all invalid financial instruments in a highly accurate manner. The financial instrument input system shall be constructed in a manner that protects against vandalism, abuse or fraudulent activity. Additionally financial instrument acceptors shall meet the following rules for all acceptable types of medium:

a. Each valid bill, coupon, ticket/voucher or other approved note shall register on the patron's credit meter, the actual monetary value or the appropriate number of credits received for the denomination being utilized;
b. Upon financial instrument insertion, the credit meter shall update and credits shall only register when:
    i. The financial instrument has passed the point where it is accepted and stacked; and
    ii. The acceptor has sent the "irrevocably stacked" message to the electronic game.
c. Each financial instrument acceptor shall have security features designed to prevent the use of cheating methods. Implementation of a method for detecting counterfeit bills is required;
d. Acceptance of any financial instruments for crediting to the credit meter shall only be possible when the electronic game is enabled for play. Error conditions shall cause the disabling of the financial instrument validator system;
e. Each electronic game and/or financial instrument validator shall have the capability of detecting and displaying the following financial instrument validator error conditions:
    i. Stacker full;
    ii. Financial instrument jams;
    iii. Financial instrument validator door open;
    iv. Stacker door open;
    v. Stacker removed; and
    vi. Financial instrument malfunction not specified above.

NOTE: Financial Instrument validators with flashing or disabling of light(s) to notify of an error condition are acceptable.

1-1.17.2 <u>Communication</u>

All financial instrument validators shall communicate to the electronic game using a bi-directional protocol.

1-1.17.3 Factory Set Financial Instrument Validators

For financial instrument validators which are designed to be factory set only, it shall not be possible to access or conduct maintenance or adjustments to those financial instrument validators in the field, other than the following:

a. Selection of desired acceptance of financial instruments and their limits;
b. Changing of Commissioner approved, ITL tested software;
c. Adjustment of the tolerance level shall only be allowed with adequate levels of security in place. Approved security methods are accomplished through lock and key, physical switch settings or other methods approved by the Commissioner;
d. Factory approved maintenance, adjustment and repair procedures, which are subject to Commissioner approval;
e. Options that set the direction or orientation of acceptance.

1-1.18 ELECTRONIC GAME METERING OF FINANCIAL INSTRUMENT VALIDATOR EVENTS

1-1.18.1 Metering Requirements

An electronic game containing a financial instrument validator shall maintain sufficient electronic metering to report the following:

a. Total monetary value of all items accepted;
b. Total number of all items accepted; and
c. A breakdown of bills accepted, including each denomination;
d. For all other financial instruments, the electronic game shall have separate meters report the number of items accepted, not including bills.

1-1.18.2 Financial Instrument Recall

An electronic game that utilizes a financial instrument validator shall retain in its memory and display the last five items accepted by the financial instrument validator. The financial

instrument validator recall log may be combined or maintained separately by item type. If combined, the type of item accepted shall be recorded with the respective timestamp.

1-1.19 ACCEPTABLE FINANCIAL INSTRUMENT VALIDATOR LOCATIONS

1-1.19.1 Financial Instrument Validator Locations

The financial instrument validator shall be located in a locked area of the electronic game, not within the logic area. Only the entrance for inserting the financial instrument shall be accessible by the patron.

1-1.20 FINANCIAL INSTRUMENT VALIDATOR STACKER REQUIREMENTS

1-1.20.1 Financial Instrument Validator Stacker Requirements

Each financial instrument validator shall have a secure stacker and all accepted financial instruments shall be deposited into the stacker. The stacker is to be attached to the electronic game in such a manner so that it cannot be easily removed by physical force and shall meet the following rules:

a. Financial instrument validator shall have a "stacker full" sensor;
b. A separate keyed lock to stacker area. This keyed lock area shall be separate from the main door. In addition, a separate keyed lock shall be required to remove the financial instruments from stacker;
c. A tower light or alarm shall be activated whenever the financial instrument door is accessed or the stacker has been removed.

1-1.21 REDEMPTION OF CREDIT

1-1.21.1 Credit Redemption Requirements

Available credit may be collected from the electronic game by the patron by pressing the "COLLECT" button at any time other than during:

a. Game being played;
b. Audit mode;
c. Any door open;
d. Test mode;
e. A credit meter or win meter incrementation unless the entire amount is placed on the meters when the collect button is pressed; or

f. Error condition.

1-1.22 FINANCIAL OUTPUT DEVICE (FOD) REQUIREMENTS

1-1.22.1 Payment by Ticket/Voucher (FOD)Financial Output Device

If an electronic game has a Financial Output Device (FOD) that is utilized to make payments, the electronic game may pay the patron by issuing a printed ticket/voucher. If the taxation limit is reached on any single play when utilizing a ticket/voucher Financial Output Device, the ticket/voucher must only be redeemable through human interaction. The FOD shall print on a ticket/voucher and provide the data to the OMS that records the following information:

a. Value of credits in local monetary units in numerical form;
b. Time of day the ticket/voucher was printed in twenty-four hour format showing hours and minutes-printing of this information is not required, provided that storage of this information is in the database. If the information is stored within the database, the storage procedure shall be subject to the approval of the Commissioner;
c. Date in any recognized format, indicating the day, month and year;
d. Electronic game number;
e. Unique validation number (including a copy of the validation number on the leading edge of the ticket/voucher); and
f. Barcode (not required for ticket/voucher that are non-redeemable at an electronic game).

1-1.22.2 Location of Financial Output Device

If an electronic game is equipped with a FOD, it shall be located in a locked area of the electronic game, not within the logic area or the drop box.

1-1.22.3 Error Conditions for Financial Output Device

A FOD shall have mechanisms to allow software to interpret and act upon the following conditions:

a. Out of paper/paper low: It is permissible for the electronic game not to lock up for these conditions. However, a means that is approved by the Commissioner shall be available to alert floor personnel of these conditions;

b. FOD jam failure; and

c. FOD disconnected: It is permissible for the electronic game to detect this error condition when the game tries to print.

1-1.23 Ticket/Voucher Validation

1-1.23.1 Payment by Ticket /Voucher Financial Output Device

Payment by ticket/voucher Financial Output Device as a method of credit redemption is only permissible when:

a. An electronic game is linked to a computerized ticket/voucher validation system, which allows for validation of the printed ticket/voucher. Validation approval or information shall come from the ticket/voucher validation system in order to validate ticket/vouchers. Ticket/Vouchers may be validated at any location within a licensed gaming facility, so long as it meets the standards within this section or any other standards which are set forth or recognized by the Commissioner. If communication is lost and validation information cannot be sent to the central system, the manufacturer is required to provide means to allow for an alternate method of payment. The validation system shall be able to identify duplicate ticket/voucher to prevent fraud by reprinting and redeeming of a ticket/voucher that was previously issued by an electronic game; or

b. The use of an alternative method of payment must include the ability to identify duplicate ticket/vouchers to prevent fraud by reprinting and redeeming a ticket/voucher previously issued by an electronic game.

NOTE: If an alternative method is utilized as described in part b, the method shall be subject to Commissioner approval prior to implementation within Chickasaw Nation operated Gaming Facilities.

1-1.24 Ticket/Voucher Information

1-1.24.1 Required Ticket/Voucher Information

At minimum, a ticket/voucher shall contain the following printed information:

a. Gaming facility name/site identifier;
b. Electronic game number;
c. Cage/cashier location number, if ticket/voucher creation outside of the electronic game is supported;
d. Date and time;
e. Alpha and numeric dollar amount of the ticket/voucher;
f. Ticket/voucher sequence number;
g. Validation number;
h. Leading edge validation number that is the first information on the ticket as it is printed.
i. Bar code or any machine readable code representing the validation number;
j. Type of transaction or other method or differentiating ticket/voucher types; and
k. Indication of an expiration period from date of issue, or date and time the ticket/voucher will expire (24 hour format which is the understood local date and time format).

1-1.25 Issuance and Redemption of Ticket/Voucher

1-1.25.1 Ticket/Voucher Issuance Requirements

A ticket/voucher can be generated at an electronic game through a Financial Output Device at a patron's request by redeeming all credits. A ticket/voucher that reflects partial credits may be issued automatically from an electronic game. Additionally, cage/cashier issuance is allowed if supported by the validation system.

1-1.25.2 Online Ticket/Voucher Redemption Requirements

Ticket/vouchers may be inserted in any electronic game participating in the validation system, providing that no credits are issued to the electronic game prior to confirmation of ticket/voucher validity. The patron may also redeem a ticket/voucher at a cage/cashier area or other validation terminal which has been certified by an ITL and approved by the Commissioner.

1-1.25.3 Offline Ticket/Voucher Redemption Requirements

The offline ticket/voucher redemption may be validated as an internal control process at the specific electronic game that issued the ticket/voucher.

1-1.26 Electronic Game Display Requirements

1-1.26.1 Rules of Play Display

The following is required for display:

a. Payglass or video display shall be clearly identified and shall accurately state the rules of the game and the award that will be paid to the patron when the patron obtains a specified win. The payglass or video displays shall clearly indicate whether awards are designated in credits currency, or some other unit subject to Commissioner approval. The method of display can accomplished with a digital display in a conspicuous location of the electronic game and the game must clearly indicate as such. All paytable information shall be able to be accessed by the patron prior to commencement of play. Payglass or video should not be certified by an ITL if the information is inaccurate or may cause confusion.

b. Upcoming wins: The electronic game shall not advertise any upcoming wins;

c. Extended feature information: Each electronic game which offers an extended feature (e.g., free games, re-spins, etc.) must display the number of feature games that remain during each game;

d. Multiple decks of playing cards: Each electronic game which utilizes multiple decks of playing cards will make the patron aware of the number of decks in play; and

e. Patron choice: When a non-skill electronic game offers the patron choice, the ratio between the pay resulting from the optimal selection and the pay resulting from the worst selection should be less than or equal to 100.5%. If the ratio is greater than 100.5%, the game must display additional information so that the patron can make an informed decision regarding optimal play.

1-1.26.2 Information To Be Displayed to Patron

An electronic game that is available to the public for play shall have the following information displayed either on the electronic game and/or displayed on the glass of the electronic game.

a. Denomination being played;

b. Patron options selected;
c. Current bet amount;
d. Amount won for the last completed game;
e. All possible winning outcomes or outcomes must be available as a menu item or on the help menu;
f. Patron current credits available; and
g. Disclaimer of "all malfunctions void all pays" clearly displayed to the patron.

In addition to the requirements set forth above, a Class II electronic game that is available to the public for play shall require the following additional information be clearly displayed to the patron on the electronic game and/or displayed on the glass of the electronic game:

a. Written notice that "Reels are for entertaining purposes only", and
b. Written notice that "Game determination is based on the bingo pattern only".

1-1.26.3 Multi-Line Electronic Games

The following is required for a multi-line electronic game:

a. The electronic game shall indicate each line being wagered on;
b. The credits bet per line; and
c. The winning playline(s) shall be discernable to the patron (e.g., on a video electronic game, it may be accomplished by drawing a line over the symbols on the playline(s) and/or the flashing of spinning symbols and line selection box). Where there are wins on multiple lines, each winning playline may be indicated in turn.

1-1.27 Game Cycle of an Electronic Game

1-1.27.1 Game Cycle

A game is considered completed when the final transfer to the patron's credit meter takes place or when all credits wagered are lost. The following are all considered to be part of a single game:

a. Games that trigger a free game feature and any subsequent free games;
b. "Second screen" bonus feature(s);
c. Games with patron choice (e.g., draw Poker or blackjack);

d. Games where the rules permit wagering of additional credits (e.g., blackjack insurance); and
e. Double-up/(gamble features)

SECTION 1-2 RANDOM NUMBER GENERATOR

1-2.1 Random Number Generator Requirements

1-2.1.1 Selection Process

The following items are required for the game selection process:

a. All combinations and outcomes shall be available: Each possible permutation or combination of game elements that produces winning or losing game outcomes shall be available for random selection at the initiation of each play, unless otherwise denoted by the game;
b. No near miss: After selection of the game outcome, the electronic game shall not make a variable secondary decision which affects the result shown to the patron; and
c. No corruption from associated equipment: An electronic game shall use appropriate communication protocols to protect the random number generator and random selection process from influence by associated equipment which may be in communication with the electronic game.

1-2.1.2 Random Number Generator Requirements

The use of a Random Number Generator (RNG) will result in the selection of game symbols or production of game outcomes. The selection shall:

a. Be statistically independent;
b. Conform to the desired random distribution;
c. Pass various recognized statistical tests; and
d. Be unpredictable.

1-2.1.3 Applicable Testing

The Commissioner shall require the ITL to employ the use of various recognized tests to determine whether or not the random values produced by the random number generator pass

the desired confidence level of four (4) sigma. These tests may include but are not limited to the following:

a. Chi-square test;
b. Equi-distribution (frequency) test;
c. Gap test;
d. Overlaps test;
e. Poker test;
f. Coupon collector's test;
g. Permutation test;
h. Kolmogorov-Smirnov test;
i. Adjacency criterion tests;
j. Order statistic test;
k. Interplay correlation test;
l. Tests on subsequences;
m. Tests which ensure that patterns of occurrences are not recurrent; and
n. Tests which ensure that outcomes are independent of the previous game outcome.

1-2.1.4 RNG Activity Requirements

The RNG shall be cycled continuously in the background between games and during game play at a speed that cannot be timed by the patron.

1-2.1.5 RNG Seeding

The first seed shall be randomly determined by an uncontrolled event. After every game there shall be a random change in the RNG process. This will ensure the RNG does not start at the same value every time. The manufacturer must ensure that games will not synchronize.

1-2.1.6 Live Game Correlation

Unless otherwise denoted on the payglass, where the electronic game plays a game that is recognizable to be a simulation of a live facility game such as poker, blackjack, etc., the same probabilities associated with the live game shall be evident in the simulated game.

1-2.1.7 Scaling Algorithms

If a random number with a range shorter than that provided by the RNG is required for the electronic game, the method of re-scaling is to be designed in such a way that all numbers within the lower range are equally probable. If a random number is selected which is outside the range of equal distribution of re-scaling values, it is permissible to discard that random number and select the next in sequence for the purpose of re-scaling.

SECTION 1-3 PAYOUT PERCENTAGES, ODDS AND NON-CASH AWARDS

1-3.1 Percentage Payout Requirements

1-3.1.1 Payout Percentage

Each game within Chickasaw Nation operated gaming facilities will be tested by an ITL for the expected lifetime of the base game. The ITL shall provide within the lab certification the minimum and maximum theoretical payout percentages for the base games, unless otherwise specified by the Commissioner. Any additional awards added to a game will be subject to Commissioner approval and shall require re-evaluation by an ITL of, at minimum, the theoretical payout percentage.

1-3.1.2 Merchandise prizes in Lieu of Cash Awards

The following are requirements to award merchandise prizes in lieu of cash awards:

a. Limitations: On the prize amount of merchandise, it shall be clearly explained to the patron on the game that is offering such a prize.

b. Electronic games which are linked to offer the same merchandise prize shall all have the same probability of hitting the prize winning combination.

SECTION 1-4 BONUS GAMES

1-4.1 Bonus Game Requirements

1-4.1.1 Electronic Games With Bonus Features

Electronic games which offer games that have an award calculated from game play within the base game's cycle made upon the completions of a series of random occurrences, (e.g. bonus features, including free games) shall meet the following requirements:

a. The game shall clearly display to the patron which game rules apply to the current game state;
b. The game shall clearly display to the patron all possible win amounts, multiplier ranges, etc. that can be obtained from bonus play
c. The game, other than those that occur randomly, shall display to the patron sufficient information to indicate the current status for triggering of the next bonus game;
d. If the game requires obtaining several events/symbols for a feature, the number of events/symbols needed to trigger the bonus shall be indicated along with the number of events/symbols collected at any point
e. The game shall not adjust the likelihood of a bonus occurring based on the history of prizes obtained in previous games;
f. If a game's bonus is triggered after accruing a certain number of events/symbols or combination of events/symbols of a different kind, the probability of obtaining like events/symbols shall not deteriorate as the game progresses;
g. The game shall make it clear to the patron that they are in bonus mode to avoid the possibility of the patron walking away from the electronic game not knowing the game is in a bonus mode;
h. Bonus awards are part of the game cycle with predetermined award values. Bonus play award contributions to the program payout percentage are calculated consistent with awards of the regular game cycle. Specifically, if the cycle for bonus play awards is different from the base game cycle, the bonus play awards occurring within the base game's cycle will be calculated as part of the game's payout; and
i. Pursuant to the game rules, the game shall display the rules of play for the bonus game awards, the rewards associated with each bonus play award and the character combinations that will result in the specific payouts. For bonus play awards achieved by obtaining specific game results, the progress of the award shall be displayed.

1-4.1.2 <u>Extra Credits Wagered Requirements</u>

If a bonus or feature game requires extra credits to be wagered and the game accumulates all winnings (from the trigger and the feature) to a temporary "win" meter (rather than directly to the credit meter), the game shall:

a. Provide a means to allow winnings on the temporary meter to be wagered (via the credit meter) in instances where the patron has an insufficient credit meter balance to complete the feature;
b. Transfer all credits on the temporary meter to the credit meter upon completion of the feature;
c. Not exceed the maximum wager limit; and
d. Provide the patron an opportunity NOT to participate.

SECTION 1-5 MYSTERY AWARDS

1-5.1 Mystery Award Requirements

1-5.1.1 Mystery Award Minimum and Maximum Amounts

Upon Commissioner approval, electronic games may offer a Mystery Award (an award that is not specifically called out on the payglass or game screen). However, an electronic game that offers a Mystery Award must indicate the maximum amount the patron could potentially win. If the minimum amount of the potential award is not displayed, it will be assumed to be "0." For those electronic games which offer a mystery award where the method to receive the award involves strategy or skill, both the minimum and maximum amount of the potential award shall be displayed. This would include methods where the value of the paytable is used in order to make a decision that could increase return to the player (i.e., video poker).

SECTION 1-6 ELECTRONIC GAMES WITH MULTIPLE GAMES

1-6.1 Electronic Games Which Offer Multiple Games

1-6.1.1 Requirements for Electronic Games with Multiple Games

The following shall be required for those electronic games which offer multiple games:

a. The method by which a patron selects and discards a particular game for play on an electronic game that offers multiple games shall be clearly explained to the patron on the electronic game screen.;

b. The electronic game must clearly inform the patron of all games, rules and/or winning game combinations before the patron must commit to playing them.

c. The patron shall at all times be made aware of the game which has been selected for play and is being played;

d. When multiple games are offered for play, the patron shall not be forced to play a game solely by the selection of a game title, unless the game screen clearly indicates the game selection is unchangeable. If such information is not disclosed, the patron shall be able to return to the main menu;

e. It shall not be possible to select or start a new game before the current play is completed and all relevant meters have been updated;

f. The set of games offered to the patron for selection, or the paytable, can be changed only by a secure method that follows all applicable internal control standards and procedures, including turning on and off games available for play through a video screen interface; and

g. No changes to the set of games offered to the patron for selection or to the paytable are permitted while there are credits on the patron's credit meter or while a game is in progress.

SECTION 1-7 ELECTRONIC METERING

1-7.1 Electronic Metering within the Electronic Game

1-7.1.1 Credit Meter Units and Display Requirements

The credit meter shall be maintained in credits or cash value and shall at all times indicate all credits or cash available for the patron to wager or cash-out, except when the patron is viewing an informational screen such as a menu or help screen item. This shall be displayed to the patron unless a tilt condition or malfunction exists.

1-7.1.2 Credit Meter Incrementing Requirements

The value of every prize (at the end of a game) shall be added to the patron's credit meter, except for handpays or merchandise. The credit meter shall also increment with the value of all valid bills, ticket/vouchers or any other approved financial instruments.

1-7.1.3 Progressive Award Requirements

Progressive awards may be added to the credit meter if:

a. The credit meter is maintained in the local currency amount format; or
b. The progressive meter is incremented to whole credit amounts; or
c. The progressive prize in local currency amount format is converted properly to credits upon transfer to the patron's credit meter in a manner that does not mislead the patron.

1-7.1.4 Collect Meter Requirements

There shall be a facility for a collect meter which shall display the number of credits or cash collected by the patron upon a cash-out. These amounts shall be displayed to the patron unless a tilt condition or malfunction exists. This meter may or may not include handpays.

1-7.1.5 Software Meter Information Access Requirements

Software meter information shall only be accessible by an authorized person as set forth in applicable internal control standards and procedures and must have the ability to be displayed on demand using a secure means.

1-7.1.6 Electronic Accounting Requirements

Electronic accounting meters shall be at least ten digits in length. These meters shall be maintained in credit units equal to the denomination or in dollars and cents. If the meter is being used in a dollars and cents format, eight digits must be used for the dollar amount and two digits used for the cents amount. Electronic games configured for multi-denomination play shall display the units in dollars and cents. The meter must roll over to zero upon the next occurrence any time the meter exceeds ten digits and after 9,999,999,999 has been reached or any other value that is logical.

1-7.1.7 Occurrence Meter Requirements

Occurrence meters shall be at least eight digits in length, however, are not required to automatically roll over. Meters shall be labeled so they can be clearly understood in

accordance with their function. All electronic games shall be equipped with a device, mechanism or method for retaining the value of all meter information specified herein which shall be preserved for a minimum of 72 hours.

1-7.1.8 Required Electronic Meters

In the event of power loss to the electronic game, electronic meter requirements are as follows:

a. Coin In Meter: The electronic game shall have a meter that accumulates the total value of all wagers, whether the wagered amount results from the insertion of all approved financial instruments, deduction from a credit meter or any other means. This meter shall:
   i. Not include subsequent wagers of intermediate winnings accumulated during game play sequence such as those acquired from "double up" games;
   ii. Multi-game and multi-denominational electronic games shall be required to provide the information necessary, on a per paytable basis, to calculate a weighted average theoretical payback percentage; and
   iii. Electronic games which contain paytables with a difference in theoretical payback percentage which exceeds 4 percent between wager categories, shall be required to maintain and display coin in meters and the associated theoretical payback percentage, for each wager category with a different theoretical payback percentage and calculate a weighted average theoretical payback percentage for that paytable.
b. Coin Out Meter: The electronic game must have a meter that accumulates the total value of all amounts directly paid by the electronic game as a result of winning wagers, whether the payout is made from the hopper, to a credit meter or by any other means. This meter shall not record amounts awarded as the result of an external bonusing system or a progressive payout;
c. Attendant Paid Jackpots Meter: The electronic game shall have a meter that accumulates the total value of credit paid by an attendant resulting from a single winning alignment, combination or pattern for the amount of which is not capable of being paid by the electronic game itself. This does not include progressive amounts or amounts awarded as a result of an external bonusing system. This meter is only to include awards resulting from a specifically identified amount listed in the manufacturer's par sheet;

d. Cancelled Credits Meter: The electronic game shall have a meter that accumulates the total value paid by an attendant resulting from a patron initiated cash-out that exceeds the physical or configured capability of the electronic game to make the proper payout amount;

e. Bill In Meter: The electronic game shall have a meter that accumulates the total value of currency accepted. Additionally, the electronic game shall have a specific meter for each denomination of currency accepted that records the number of bills accepted of each denomination;

f. Ticket/Voucher In Meter: The electronic game shall have a meter that accumulates the total value of all electronic game wagering vouchers accepted by the electronic game

g. Ticket/Voucher Out Meter: The electronic game shall have a meter that accumulates the total value of all electronic game wagering vouchers and payout receipts issued by the electronic game.

h. Electronic Funds Transfer In Meter (EFT In): The electronic game shall have a meter that accumulates the total value of cashable credits electronically transferred from an OMS to the electronic game when using EFT commands in the function of bonusing, promotions or cashless wagering.

i. Cashless Account Transfer In Meter (AFT In): The electronic game shall have a meter that accumulates the total value of cashable credits electronically transferred to the electronic game from a wagering account by means of an external connection between the electronic game and a cashless wagering system;

j. Cashless Account Transfer Out Meter: The electronic game shall have a meter that accumulates the total value of cashable credit electronically transferred from the electronic game to a wagering account by means of an external connection between the electronic game and a cashless wagering system;

k. Non-Cashable Electronic Promotion In Meter: The electronic game shall have meter that accumulates the total value of non-cashable credits electronically transferred to the electronic game from a promotional account by means of an external connection between the electronic game and a cashless wagering system;

l. Cashable Electronic Promotion In Meter: The electronic game shall have a meter that accumulates the total value of cashable credits electronically transferred to the electronic game from a promotional account by means of an external connection between the electronic game and a cashless wagering system;

m. Non-Cashable Electronic Promotion Out Meter: The electronic game shall have meter that accumulates the total value of non-cashable credits electronically transferred from the electronic game to a promotional account by means of an external connection between the electronic game and a cashless wagering system;

n. Cashable Electronic Promotion Out Meter: The electronic game shall have a meter that accumulates the total value of cashable credits electronically transferred from the electronic game to a promotional account by means of an external connection between the electronic game and a cashless wagering system;

o. Coupon Promotion In Meter: The electronic game shall have a meter that accumulates the total value of all electronic game coupons accepted by the electronic game;

p. Coupon Promotion Out Meter: The electronic game shall have a meter that accumulates the total value of all electronic game coupons issued by the electronic game;

q. Electronic Game Paid External Bonus Payout: The electronic game shall have a meter that accumulates the total value of additional amounts awarded as a result of an external bonusing system and paid by the electronic game;

r. Attendant Paid External Bonus Payout Meter: The electronic game shall have a meter that accumulates the total value of amounts awarded as a result of an external bonusing system paid by an attendant;

s. Attendant Paid Progressive Payout Meter: The electronic game shall have a meter that accumulates the total value of credits paid by an attendant as a result of progressive awards that are not capable of being paid by the electronic game itself;

t. Electronic Game Paid Progressive Payout Meter: The electronic game shall have a meter that accumulates the total value of credits paid as a result of progressive awards paid directly by the electronic game. This meter does not include awards paid as a result of an external bonusing system; and

v. Games played meter: The electronic game shall have meters that accumulate the number of games played for each of the following:

   i. Since power reset;

   ii. Since door close; and

   iii. Since game initialization (RAM clear)

w. External Doors Meter: The electronic game shall have a meter that accumulates the number of times the external cabinet door is opened which allows access to the logic area or financial instrument compartment which has been opened since the last RAM clear.

x. Other Required Meter: The electronic game shall have a meter that accumulates the number of times the financial instrument validator door has been opened since the last RAM clear.

y. Other Required Meter: The electronic game shall have a meter that accumulates the number of times each progressive meter is activated.

NOTE: Currently, Chickasaw Nation gaming facilities do not participate in "EFT" transactions. For Chickasaw Nation gaming facilities to participate in "Legacy" and "Electronic Fund Transfers" transactions, prior Commissioner approval is required

1-7.1.9 Multi-Game Electronic Game Specific Meter Requirements

In addition to the meters noted in the previous section, for those electronic games which offer multi-game play, each individual game available for play shall have the period meters "Credits Bet" and "Credits Won" in either credits or dollars.

1-7.1.10 Double Up or Gamble Meter Requirements

For each type of double-up or gamble feature offered, there shall be sufficient meters to determine the feature's actual return percentage which shall increment accurately every time a double up or gamble play concludes.

SECTION 1-8 MISCELLANEOUS ELECTRONIC GAME REQUIREMENTS

1-8.1 Communication Protocol

1-8.1.1 Communication Protocol Requirements

For each electronic game that is required to communicate with an OMS, the electronic game shall accurately function as indicated by the Commissioner approved communication protocol that is implemented.

1-8.2 Error Conditions

1-8.2.1 Error Condition Detection and Display Requirements

Error conditions should cause the electronic game to lock up and require attendant intervention. Unless otherwise noted below, error conditions shall be cleared by an attendant or shall automatically clear upon initiation of a new play sequence, unless otherwise noted below. Electronic games that are connected to an OMS shall be required to communicate the error condition to the OMS. Each electronic game shall be capable of detecting and displaying the error conditions below. Additionally, each electronic game shall have the capability to illuminate the tower light or sound an audible alarm, or other method approved by the Commissioner, for each of the following error conditions.

a. Financial instrument validator errors: It is acceptable to disable the validator or flash light(s) for the following financial instrument validator error conditions:
   i. Stacker full;
   ii. Financial instrument jams;
   iii. Financial instrument validator door open;
   iv. Stacker door open;
   v. Stacker removed;
   vi. Other financial instrument validator malfunction not specified above.

b. Financial Output Device Errors: Error conditions are required for the following Financial Output Device errors:
   i. Out of paper/paper low condition(s) for an electronic game shall have a means for the attendant to be alerted;
   ii. Financial Output Device jam/failure; and
   iii. Financial Output Device disconnection.

c. Door open error condition: Error conditions are required for the following door openings:
   i. For all external doors (e.g., main, belly, top box);
   ii. Drop box door;
   iii. Financial instrument validator door (e.g., stacker door); and
   iv. Any other area where a financial instrument is stored which has a door.

d. Other Error Conditions: Error conditions are required for the following:
   i. RAM error (In the case of this error condition, the patron's credits shall be displayed to avoid patron disputes);
   ii. Low RAM battery for batteries external to the RAM itself or low power source;
   iii. Program error or authentication mismatch;

iv. Reel spin errors: The specific reel number shall be identified in the error code. This shall be detected under the following conditions:

v. A mis-index condition for rotating reels that affects the outcome of the game;

vi. In the final positioning of the reel, if the position error exceeds one-half of the width of the smallest symbol excluding blanks on the reels strip;

vii. Microprocessor controlled reels shall be monitored to detect malfunctions such as a reel which is jammed or is not spinning feely or any attempt to manipulate their final resting position; and

viii. Power reset.

e. Error condition code requirements: For those electronic games that utilize error codes, a description of electronic game error codes and their meanings shall be affixed to the inside of the electronic game.

1-8.3 Program Interruption and Resumption

1-8.3.1 Program and Interruption Requirements

After a program interruption (i.e., processor reset), the software shall be able to recover to the state it was in immediately prior to the occurrence of the interruption. If a power failure occurs during acceptance of a financial instrument, the financial instrument validator shall give proper credits or return the financial instrument, notwithstanding a small window of time where power may fail and credit may not be given. In this case, the window shall be less than one (1) second.

1-8.3.2 Power Restoration

If an electronic game is powered down while in an error condition, upon restoring power, the specific error message shall continue to be displayed and the electronic game shall remain locked-up unless:

a. Power down is used as part of the error reset procedure; or

b. During power up or door closure, the electronic game checks for the error condition and detects that it is no longer in existence.

1-8.3.3 Simultaneous Inputs

The program shall not be adversely affected by the simultaneous or sequential activation of various inputs and outputs, such as "play buttons," which might, whether intentionally or not, cause malfunctions or invalid results.

1-8.3.4 Program Resumption Requirements

Upon program resumption, the following procedures shall be performed as a minimum requirement:

a. Any communications to an external device shall not begin until the program resumption routine, including self-tests, is completed successfully;
b. Electronic game control programs shall test themselves for possible corruption due to failure of the program storage media. The authentication test method used shall consist of the following:
   i. Cyclic Redundancy Check (CRC)
   ii. Other certified test methodologies which are at least 16 bit; and
   iii. Checksum
c. The integrity of all critical memory shall be checked; and
d. The financial instrument validator device shall perform a self-test at each power up. In the event of a self-test failure, the financial instrument validator shall automatically disable itself (enter a financial instrument reject state) until the state of error has been cleared.

1-8.3.5 Microprocessor Controlled Reels (stepper motor reels)

Microprocessor controlled reels shall re-spin automatically to the last valid play-mode result when the play mode is re-entered and the reel positions have been altered.

1-8.4 Door Open/Close

1-8.4.1 Door Metering Requirements

The software shall possess and have the ability to detect specific occurrence meters for the following doors or secure areas:

a. All external doors (main, belly, top box);
b. Drop box door;
c. Financial Instrument validator door (stacker door)
d. Any other area in which financial instruments are stored that has doors.

1-8.4.2 Door Open Procedure Requirements

When the main door of the electronic game is opened, the game shall cease play, enter an error condition, display an appropriate error message, disable financial instrument acceptance and either sound an alarm or illuminate the tower light or both.

1-8.4.3 Door Close Procedure Requirements

When the main door of the electronic game is closed, the game shall return to its original state and display an appropriate error message until the next game has ended.

1-8.5 Taxation Reporting Limits

1-8.5.1 Taxation Reporting Limit Requirements

The electronic game shall be capable of entering a lock up condition if a single event is in excess of the limit of this taxing jurisdiction.

1-8.6 Test/Diagnostic Mode (Demo Mode)

1-8.6.1 Test/Diagnostic Mode Requirements

If an electronic game is in a test, diagnostic or demo mode, any test that incorporates credits entering or leaving the electronic game shall be completed on resumption of normal operation. Additionally, there shall not be any mode other than normal operation in which electronic meters are incremented. Any credits on the electronic meter that were accrued during the test, diagnostic or demo mode shall be automatically cleared before the mode is exited. Specific meters are permissible for these types of modes provided the meters indicate as such.

1-8.6.2 Entry of Test/Diagnostic Mode Requirements

Opening of the main cabinet door of the electronic game may automatically place the electronic game in a service or test/diagnostic mode. These modes shall not be accessible to the patron.

1-8.6.3 Exiting of Test/Diagnostic Mode Requirements

When exiting from test/diagnostic mode, the game shall return to the state it was in when the test mode was entered.

1-8.6.4 Test Game Requirements

If the electronic game is in a game test mode, the electronic game shall indicate it is in a test mode and not normal play.

1-8.7 Game History Recall

1-8.7.1 Requirement for Number of Last Plays

Information on at least the last ten games shall always be retrievable on the operation of a suitable external key-switch or other secure method not available to the patron and which shall be approved by the Commissioner.

1-8.7.2 Requirement for Last Play Information

The last play information shall provide all information required to fully reconstruct the last ten plays. All values shall be displayed, including the initial credits, credits bet, and credits won, payline symbol combinations, patterns and credits paid whether the outcome resulted in a win or loss. This information can be represented in graphical or test format. If a progressive was awarded, it is sufficient to indicate the progressive which was awarded and not display the value. The information should include the final game outcome, including all patron choices and bonus features.

1-8.7.3 Bonus Round Requirements

The ten game recall shall reflect any bonus rounds in their entirety. Each bonus round regardless of the number of events shall each require separate outcomes. Each of the events shall be displayed with its corresponding outcome, regardless of a win or loss. The recall shall also reflect position dependent events if the outcome results in an award. An electronic game offering games with a variable number of intermediate play steps per game may satisfy this requirement by providing the capability to display the last 50 play steps in addition to each base game.

1-8.8 Software/Program Storage Media Verification

1-8.8.1 Verification Requirements

The electronic game shall have the ability to allow for an independent integrity check of its software/program storage media from an outside source and shall be required to check for all control programs that may affect the integrity of the game. This shall be accomplished by being authenticated by an authorized independent test lab (ITL) device which may be embedded within the game software/program storage media. The ITL shall provide a unique signature for an integrity check within the laboratory certification to be utilized for field verification.

Table of Contents

Chapter 2 ONLINE MONITORING SYSTEM STANDARDS

SECTION 2-1 ONLINE MONITORING SYSTEM (OMS)

2-1.1 On-Line Monitoring System Requirements 2
2-1.2 Data Collector and Front End Controller Requirements 3
2-1.3 Workstation Requirements 3
2-1.4 System Requirements 5
2-1.5 Events 6
2-1.6 Meters 7
2-1.7 Report Requirements 9
2-1.8 Security Requirements 10
2-1.9 Additional System Features 11

SECTION 2-2 TICKET/VOUCHER VALIDATION SYSTEM

2-2.1 Ticket/Voucher Requirements 13
2-2.2 Ticket/Voucher Issuance 14
2-2.3 Ticket/Voucher Redemption 15
2-2.4 Reports 16
2-2.5 Security 17

SECTION 2-3 ENVIRONMENTAL AND SAFETY

2-3.1 Hardware and Player Safety Requirements 17

CHAPTER 2
ONLINE MONITORING SYSTEM STANDARDS

SECTION 2-1 ONLINE MONITORING SYSTEM

2-1.1 ONLINE MONITORING SYSTEM REQUIREMENTS

2-1.1.1 Interface Element Requirements

Each electronic game installed in Chickasaw Nation operated gaming facilities that will be utilizing the OMS must have a device or interface element that has been certified by authorized independent test lab (ITL) installed inside a secure area of the electronic game that provides for communication between the electronic game and an external data collector. The communication method used shall be approved by the Commissioner.

2-1.1.2 Metering Requirements

If not directly communicating with electronic game meters, the interface element must maintain separate electronic meters of sufficient length to preclude the loss of information from meter rollovers, or a means to identify multiple rollovers. These electronic meters available on the OMS shall be capable of review on demand at the interface element level via an authorized access method.

2-1.1.3 Battery Backup Requirements

After a power loss, data recorded by electronic meters shall be preserved to an interface element for a period of at least 72 hours with no data loss. If this data is stored in volatile RAM, a battery backup with at least 72 hours of run time must be installed with the interface element.

2-1.1.4 Information Buffering and Integrity Check Requirements

If unable to communicate the required information to the OMS, the interface element must provide a means to preserve all mandatory meter and significant event information until such time as it can be communicated to the OMS. Electronic game operation may only continue until critical data will be overwritten or become lost. A method to test for corruption of data storage locations is required.

2-1.1.5 Address Requirements

The interface element shall allow for configuration of a unique identification number to be used in conjunction with an electronic game file on the OMS. This identification number will be used by the OMS to track all mandatory information of the associated electronic game. The OMS shall not allow for duplicate electronic game file entries of an identification number already in existence.

2-1.1.6 Configuration Access Requirements

The interface element setup/configuration menu(s) shall not be accessible unless using an authorized access method.

2-1.2 DATA COLLECTION AND FRONT END CONTROLLER

2-1.2.1 Front End Processor and Data Controller

An OMS may possess a Front End Processor (FEP) that gathers and relays all data information from the connected Data or Information Collectors to the associated database(s). The data or information collector then collects all information or data from connected electronic games. Communication shall be via an approved method and at a minimum meet the communication protocol requirements. If the FEP maintains buffered/logging information, a means shall exist to prevent the loss of critical information.

2-1.2.2 Server

An OMS will possess a server(s), networked system or distributed system that directs the overall operation and associated database(s) which stores all entered and collected system information or data.

2-1.2.3 System Clock

An OMS shall maintain an internal clock which shall reflect the current time (hours, minutes and seconds) and date. If multiple clocks are supported, the OMS shall have a facility and the capability to update the clocks in OMS components with no conflicting information. All devices must use Network Time Protocol, or equivalent as approved by the Commissioner, which must verify the accuracy of time or make adjustment to correct its time at least every 24 hours. The following information shall be provided:

a. Time stamping of significant events;
b. Reference clock for reporting logged events; and
c. Time stamping of configuration changes.

2-1.2.4 Database Access

The OMS shall have no built-in feature whereby a gaming facility user/operator can bypass system auditing to modify the database directly. Secure access control shall be maintained. Backups of the database are required and a backup plan must be submitted for the Commissioner's approval.

2-1.3 WORKSTATION REQUIREMENTS

2-1.3.1 Accounting Functionality

An OMS must contain an application which allows controlled access to all accounting (financial) information and is able to create all mandatory reports as required in this document, as well as, all Internal Control required reports.

2-1.3.2 Tax Reporting Threshold

Each single win event hand pay message confirmed at this application by personnel of proper authorization that is equal to or greater than the tax reporting threshold (established by the US Internal Revenue Service and currently $1200.00), shall advise the user of the need for a W2G to be processed, either via the OMS or manually. This option shall not be capable of being overridden. The keyed reset ability to return winnings from a taxable event to an electronic game credit meter shall require user intervention to void the original jackpot/top prize slip that is generated. The electronic game must be capable of properly metering the taxable win when not manually paid.

2-1.3.3 Electronic Game Management Functionality

An OMS shall have a master "Electronic Game File" which is a database of every electronic game in operation. If the OMS retrieves any of the information directly from the electronic game, sufficient controls must be in place to ensure the accuracy of the information. The master "Electronic Game File" shall include, but is not limited to the following:

a. Electronic game identification number/unique interface element;
b. Electronic game identification number as assigned by the gaming facility;
c. Denomination of the electronic game;

d. Theoretical hold(s) of the electronic game; and
e. Control program within electronic game where system is capable of storing electronic game file that contains software version information.

2-1.3.4 Jackpot/Top Prize Functionality

An OMS must contain an application that captures and processes each hand pay message from each electronic game. Hand pay messages must be created for any win above the configured taxable threshold. Once information or data is captured, there must be adequate access controls to allow for authorization, alteration or deletion of any of the values prior to payment or completion. The controls for authorization, alteration or deletion of any of the values prior to payment or completion must be documented in internal controls and approved by the Commissioner.

2-1.3.5 Jackpot/Top Prize Slip Information

The following information is required for slips generated with fields to be completed by the OMS and authorized employee(s):

a. Type of slip;
b. Alpha-numeric slip identifier;
c. Date, time and shift;
d. Electronic game number;
e. Denomination;
f. Amount of hand pay;
g. Prize amount or accumulated credit (specify which);
h. W2G indication (if applicable);
i. Additional payout (if applicable);
j. Total before taxes and taxes withheld (if applicable);
k. Amount paid to patron;
l. Total wagers made and winning combination/pattern;
m. Soft meter readings (hand pay, wager and win meters); and
n. All required signatures.

If an OMS is unable to provide the information as described above, Commissioner approval is required for manual entry or manual slip preparation. The controls for authorization, alteration or deletion of any of the values prior to payment or completion must be documented in internal controls and approved by the Commissioner.

2-1.3.6 Surveillance/Security Requirements

An OMS shall provide an interrogation program that enables on-line comprehensive searching of the significant event log for the present and the previous 90 days through archived data or restoration from backup where maintenance of such information on a live database is deemed inappropriate. At minimum, the program shall have the ability to perform a search based on the following criteria:

a. Date and time range;
b. Electronic game identification number/unique interface element; and
c. Significant event number/identifier

2-1.3.7 Other Required System Components

Any system component not specified within this document that impacts revenue reporting in any way shall be submitted to an ITL for testing.

2-1.4 SYSTEM REQUIREMENTS

2-1.4.1 Communication Protocol

The system shall support and function in accordance with a defined communication protocol which is compliant with the following requirements:

a. All critical data communication shall be protocol based and incorporate an error detection and correction scheme to ensure an accuracy of at least four (4) sigma of messages received;
b. All data communication transmitted from the electronic game to the OMS or the OMS to the electronic game shall be encrypted in a method approved by the Commissioner with the exception of bi-directional data transmission between a electronic game interface board and the electronic game; and
c. All communication performed within the system, in its entirety, must accurately function as indicated by the communication protocol(s) that are implemented.

2-1.5 EVENTS

2-1.5.1 Event Requirements

Events are generated by an electronic game and sent via the interface element to the OMS utilizing a Commissioner approved communication protocol. Each event shall be stored in a database which includes the following:

a. Date and time in which the database received transaction;
b. Date and time which the event occurred;
c. Electronic game identification number/location identification number;
d. A unique number/code that defines the event; and
e. A brief text or code that describes the event.

2-1.5.2 Types of Significant Events

The following significant events shall be collected from the electronic game and transmitted to the system for storage:

a. Power resets or power failure;
b. Hand pay conditions (amount needs to be sent to the system);
c. Electronic game jackpot/top prize (An award in excess of the single win amount limit):
    i. Cancelled credit hand pay; and
    ii. Progressive jackpot.
d. Door Openings (any door on the electronic game that accesses a critical or sensitive area). Door switches are acceptable if their operation does not result in redundant or confusing messaging:
    i. Financial instrument validator errors;
    ii. Stacker full;
    iii. Financial instrument jam;
    iv. Electronic game low RAM battery error;
    v. Reel spin errors;
    vi. Printer errors;
    vii. Printer empty/paper low; and
    viii. Printer disconnect/failure.

2-1.5.3 Types of Priority Events

A mechanism must exist to convey in real time, the following significant events to the OMS:

a. Loss of communication with interface element;
b. Loss of communication with electronic game;
c. Memory corruption of the interface element; and
d. RAM corruption of the electronic games.

2-1.6 METERS

2-1.6.1 Meter Requirements

The following metering information must be communicated from the electronic game and stored on the system equal to the denomination of the electronic game in dollars or cents. The OMS shall be designed so that reports may be created daily or on demand, and at minimum, shall consist of the following:

a. Coin in (Includes any financial instrument physical or electronic);
b. The system shall maintain paytable coin-in, theoretical and actual payback percentage information provided by the electronic game for each multi-game or multi-denomination/multi-game or each game that has multi-denominations;
c. The OMS shall maintain paytable coin-in and weighted average theoretical payback percentage information provided by each electronic game which contain paytables with a difference in theoretical which exceeds 4 percent between wager categories;
d. Coin out (non-hand pay wins);
e. Drop (total value of all bills, ticket/vouchers, or other financial instruments dropped);
f. Hand pays;
g. Attendant paid cancelled credits;
h. Ticket/voucher in (count and value);
i. Ticket /voucher out (count and value);
j. Electronic game paid external bonus payout;
k. Attendant paid external bonus payout;
l. Attendant paid progressive payout;
m. Electronic game paid progressive payout;
n. Games played (ex. handle pulls, transactions, etc.);

o. Individual bill meters (count by denomination and total value);
p. Prizes paid by the electronic game; and

2-1.6.2 Clearing Meters

Interface elements shall not contain mechanisms which allow an authorized or unauthorized user to cause the loss or modification of stored accounting meter information.

2-1.7 REPORTS

2-1.7.1 Required Reports

The OMS shall be designed so that reports may be created daily or on demand, and at minimum, shall consist of the following:

a. Meter drop vs. actual drop;
b. External bonus payouts (in total) vs. actual attendant paid prizes, cancelled credits, progressive payouts and external bonus payouts (in total);
c. OMS must produce a report (by electronic game and in total) that compares each type of attendant pay for those electronic games that have variances;
d. Meter machine paid and attendant paid external bonus payouts vs. external bonus system electronic game paid and attendant paid external bonus payouts;
e. Meter voucher out vs. system payout receipts issued;
f. System payout receipts redeemed by cashier station and by shift;
g. System payout receipts issued, including date issued, amount, sequence number and identification of electronic game where issued;
h. System payout receipt liabilities, by date issued and receipt sequence number;
i. Meters win vs. actual taxable win;
j. Monthly electronic game revenue summary;
k. Significant event log for each electronic game;
l. Taxation reports based on appropriate meter collection;
m. Net win/revenue report for each electronic game;
n. Drop comparison reports, which shall allow for configuration for either metered or actual for each item dropped (i.e., bills, tickets, etc.) with dollar and percent variances for each item and aggregate for each type;
o. Drop comparison report for ticket/voucher dropped;

p. Metered vs. actual jackpot/top prize comparison reports with the dollar and percent variance for each and aggregate;
q. Theoretical hold vs. actual hold comparison:
    i. with variances;
    ii. with ability to project dollar variance by denomination and in total;
    iii. weighted average theoretical hold for the total floor;
    iv. comparison report for actual hold percentage by denomination and floor;
    v. comparison report for percentage variance by denomination and floor; and
    vi. projected dollar variance by denomination, projected dollar variance for the floor;
r. Adjustment capability to allow drop, hand pay prize payouts, and win figures that may need adjustment to determine the true electronic game performance; and
s. Exception report available in the event data or parameters are changed. An exception report shall be produced that includes but is not limited to the following:
    i. Data or parameter altered;
    ii. Data or parameter value prior to alteration;
    iii. Data or parameter value after alteration;
    iv. Date and time of alteration; and
    v. Identification of user that performed alteration.

2-1.7.2 Required Report Information

Reports shall consist of daily, monthly, year-to-date basis, and life to date reports generated from stored database information. Each report shall include, but is not limited to the following:

a. Document title;
b. Date or time period of activity;
c. Date and time the report was generated;
d. Instrument issuances by date; and
e. Identification of electronic game where issued.

2-1.8 SECURITY REQUIREMENTS

2-1.8.1 Access Control

The OMS shall support a structure in which a user and password define program or individual menu item access or long program/device security and which is based strictly through user and password or PIN. Passwords must be alpha-numeric and at least six (6) characters. In addition, the OMS shall not permit the alteration of any log information communicated from an electronic game. There shall also be a provision for administrator notification and user lockout and audit trail entry.

2-1.8.2 Backup and Recovery General

The OMS shall have sufficient redundancy and modularity so that if any single component or part of a component fails, gaming can continue. There shall be duplicate copies of each log file or system database on the OMS with open support for backups and restoration. A design and the backup procedures must be approved by the Commissioner.

2-1.8.3 Recovery

In the event of failure when the OMS cannot be restarted through other means, it shall be possible to reload the system from the last viable backup point and fully recover the contents of that backup.

2-1.8.4 Altering of Data

The OMS shall not permit the alteration of any accounting or event log information communicated from the electronic game without logging all changes and the identification of the user that performed the alteration in an unalterable log.

2-1.9 ADDITIONAL SYSTEM FEATURES

2-1.9.1 Electronic Game Program Verification

An OMS may provide a redundant functionality to check electronic game software. The following must be reviewed for validity prior to implementation:

a. Software signature; and
b. Data communications error check algorithm(s).

2-1.9.2

Flash Downloads or Code Shooting

An OMS may utilize FLASH technology to allow interface element software updates if all of the following requirements are met:

a. FLASH download functionality shall be at a minimum password protected and should be at a supervisor level. The OMS can continue to locate and verify versions currently running but it cannot load code that is not currently running on the system without user intervention;
b. A non-alterable audit log must record the time/date of a FLASH download and provisions must be made to associate the log including the version(s) of code downloaded and the user initiating the download. A separate FLASH audit log report is required; and
c. All modifications to the download executable or flash file(s) shall be submitted to an independent testing laboratory for review, testing and certification. The independent testing laboratory shall perform a FLASH download and verify operation to the system. The independent testing laboratory shall assign signatures to executable code and flash file(s). All flash files shall be made available to the Commissioner to verify the signature(s).

2-1.9.3 Remote Access Requirements

An OMS may utilize password controlled remote access to an OMS as the following requirements are met:

a. Remote access user activity log shall be maintained depicting logon name, time/date, duration and activity while logged in;
b. No unauthorized remote user administration functionality (adding users, changing permissions, etc.);
c. No unauthorized access to database other than information retrieval using existing functions;
d. No unauthorized access to operating system;
e. For remote access to be used on a continuous basis, a network filter shall be installed to protect access;
f. Any other regulations, standards, or provisions set forth or recognized by the Commissioner.

2-1.9.4 Verification of System Software

System software components shall be verifiable by a secure means at the system level denoting program identification and version, as approved by the Commissioner. The system shall have the capability to allow for an independent integrity check of the components from an outside source which is required for all control programs that may affect the integrity of the system. This system shall be authenticated by utilizing a device certified by an ITL, which may be embedded within the system software or have an interface port for a means to utilize an ITL certified device for authentication. The integrity check shall provide a means for verification of the system components to identify and validate the programs or files. An ITL shall test and certify the integrity check method prior to system approval by the Commissioner. Signature results shall be provided to the Commissioner from the ITL within the lab report to verify field audits.

Note: If an OMS utilizes a virtual drawing program, the system shall have the capability to perform an independent integrity check from an outside source. This integrity check shall be authenticated by utilizing an ITL certified device which may be embedded within the system software or have an interface port for a means to utilize the certified device for authentication. The integrity check shall provide a means for verification of the program and/or files within. Signature results from independent integrity check shall be provided to the Commissioner from the ITL within the lab report for field verification purposes.

SECTION 2-2 TICKET/VOUCHER VALIDATION SYSTEM

2-2.1 TICKET/VOUCHER REQUIREMENTS

2-1.1.1 Printer Requirements for Ticket/Voucher

A ticket/voucher redemption system may be integrated into an OMS or exist separately. Payment by a ticket/voucher printer as a method of credit redemption on an electronic game shall only be permissible when the electronic game is linked to a validation system or OMS that allows validation of the printed ticket/voucher. The validation system or OMS utilized must be reviewed, tested and certified by an independent testing laboratory and approved by the Commissioner.

2-2.2 TICKET/VOUCHER ISSUANCE

2-2.2.1 Ticket/Voucher Information and Communication Requirements

The ticket/voucher validation must communicate the following ticket/voucher date to the electronic game to print on the ticket/voucher.

a. Gaming facility name or gaming facility site identifier;
b. Electronic game number (or cashier number if supported);
c. Alpha and numeric dollar amount of the ticket/voucher;
d. Expiration period from date of issuance or date and time the ticket/voucher will expire;
e. System date and time;
f. Ticket/voucher sequence number;
g. Ticket/voucher primary and secondary validation numbers;
h. Bar code or any machine readable code representing the validation number; and
i. Type of transaction or other method of differentiating ticket types (i.e. duplicate ticket, cashier voucher, special wins, cashout, etc.)

2-2.2.2 Algorithm Requirements for Generated Ticket/Voucher Validation Number

Depending upon the method or algorithm utilized for the generation of ticket/voucher validation number, the following shall apply:

a. System Validation: The algorithm or method used by the validation system or OMS to generate the ticket/voucher validation number must guarantee a statistically verifiable insignificant percentage of repetitive validation numbers, subject to the approval of the Commissioner.
b. Electronic game generated validation number: The validation system shall send a unique seed to the electronic game upon enrolling the electronic game as a ticket/voucher printing capable. The system may subsequently send a new seed to the electronic game after a ticket/voucher is printed. The algorithm or methods used to determine the seed must guarantee a statistically verifiable insignificant percentage of repetitive validation numbers.

2-2.2.3 System Ticket/Voucher Records

The validation system must retrieve the ticket/voucher information correctly based on the secure communication protocol implemented, and store the ticket/voucher information into a database. The ticket/voucher record on the host system shall contain at a minimum the following ticket/voucher information:

a. Validation number;

b. Date and time the gaming electronic game printed the ticket/voucher;
c. Type of transaction or other method of differentiating ticket/voucher types;
d. Numeric value of ticket/voucher in dollars and cents;
e. Status of ticket/voucher (i.e., pending, void, invalid, etc.);
f. Date and time the ticket/voucher shall expire; and
g. Electronic game unique number or cage /cashier location identifying where the ticket/voucher was issued.

2-2.2.4 Ticket/Voucher Printing During Loss of Communication

Provided tickets can be successfully redeemed using a secure process to prevent fraud, offline ticket generation is permissible. When communication is restored to the database all transactions must be synchronized.

2-2.3 TICKET/VOUCHER REDEMPTION

2-2.3.1 Online Ticket/Voucher Redemption

Ticket/vouchers can be redeemed at the electronic game, cage/cashier or other approved validation kiosks, provided they are enrolled for ticket/voucher validation with a validation system. The validation system must process ticket/voucher redemption correctly and in accordance with the secure communication protocol implemented. The validation system shall update the ticket/voucher status on the database during each phase of the redemption process accordingly. Each time the status of a ticket/voucher changes, the system must update the database and with each status change, the database must indicate the following information:

a. Date and time of status change;
b. Ticket/voucher status;
c. Ticket/voucher value; and
d. Electronic game unique number, cage/cashier location, kiosk or other location which identifies where the information originated.

2-2.3.2 Cage/Cashier Operation

All validation terminals shall be user and password controlled. Once a ticket/voucher is presented for redemption, the cashier shall:

a. Scan the bar code via an optical reader or equivalent; or
b. Input the ticket/voucher validation number manually; and
c. Print a validation receipt after the ticket/voucher is electronically validated.

For an OMS that utilizes an automated reconciliation process, the electronic form of validation is acceptable.

2-2.3.3 Validation Receipt Information

At a minimum the validation receipt shall contain the following printed information:

a. Electronic game number or some location identifier of the event occurrence;
b. Validation number;
c. Date and time paid;
d. Cage/cashier location identifier; and
e. Amount.

2-2.3.4 Notification of Invalid Ticket/Voucher

The OMS shall have the ability to identify the following occurrences and will notify the cashier if the following conditions exist:

a. Ticket/voucher cannot be found on file;
b. Ticket/voucher has already been paid; and
c. Amount of ticket/voucher differs from amount on file.

2-2.4 REPORTS

2-2.4.1 Reporting Requirements

The following reports shall be generated at a minimum and reconciled with all validated/redeemed ticket/vouchers:

a. Ticket/voucher issuance report;
b. Ticket/voucher redemption report;
c. Ticket/voucher liability report;
d. Ticket/voucher drop variance reports;
e. Prize ticket report (if applicable);
f. Transaction detail report shall be available for the validation system show all ticket/vouchers generated by an electronic game and all ticket/vouchers redeemed by the validation terminal or other electronic game; and
g. Cage/cashier report which shall detail individual ticket/voucher and the sum of the ticket/vouchers paid by the cage/cashier or redemption terminal;

h. Ticket/voucher redemptions by date and means of redemption (i.e., electronic game, cashier station, kiosk or other authorized manner);
i. Ticket/voucher liabilities by date issued;
j. Ticket/voucher liabilities by sequence number;
k. Ticket/vouchers expired by date issued;
l. Ticket/vouchers expired by sequence number;
m. Ticket/vouchers expired by identification of electronic game where issued;
n. Ticket/vouchers voided by date issued;
o. Ticket/voucher voided by instrument sequence number; and
p. Ticket/voucher voided by identification of electronic game where issued.

2-2.5 SECURITY

2-2.5.1 Security For Database and Validation Component

Once the database has stored the validation information, the data shall not be able to be altered in any way. The information stored in the validation system database shall be encrypted and password-protected and shall possess a non-alterable user audit trail to prevent unauthorized access. The normal operation of any device that holds ticket/voucher information shall not have any method that may compromise information from a ticket/voucher. Furthermore, any device that holds ticket/voucher information in its memory shall not allow removal of the information unless it has first transferred the information to the database or other secured component of the validation system.

SECTION 2-3 ENVIRONMENTAL AND SAFETY

2-3.1 HARDWARE AND PLAYER SAFETY REQUIREMENTS

2-3.1.1 Environmental and Safety-Hardware and Player Safety

The manufacturer/distributor/vendor shall ensure that any electrical and mechanical parts and design principals of the electronic associated hardware shall not subject a player to any physical hazards. It shall be the responsibility of the manufacturer/distributor/vendor to ensure that their goods pass any safety and EMC testing requirement before their product is provided to an independent testing laboratory for review and certification.

2-3.1.2 Environmental Effects and System Integrity

There shall be no outside influences that affect game fairness to a player or create cheating opportunities. An OMS shall be able to withstand the following and resume game play without operator intervention:

a. Electro-magnetic interference: Systems shall not create electronic noise that may affect the integrity or fairness of the neighboring associate equipment; and
b. Electro-static interference: There shall be adequate protection against static discharges and the system's hardware shall be earthed in such a way that static discharge energy shall not damage or inhibit the normal operation of the other electronics or other components within the system. The system may exhibit temporary disruption when subjected to significant electrostatic discharge, but it must be greater than human body electrostatic discharge.

Table of Contents

CHAPTER 3CASHLESS WAGERING SYSTEM STANDARDS

SECTION 3-1 CASHLESS WAGERING SYSTEMS
3-1.1 Cashless Wagering System Requirements 2
3-1.2 Central System Security Requirements 4
3-1.3 Audit Trails Central System 6
3-1.4 Financial and Patron Reports 6
3-1.5 Patron Accounts 7
3-1.6 Software Verification 8

CHAPTER 3
CASHLESS WAGERING SYSTEM STANDARDS

SECTION 3-1 CASHLESS WAGERING SYSTEMS

3-1.1 CASHLESS WAGERING SYSTEMS REQUIREMENTS

3-1.1.1 Audit Trails for Cashless Transactions

Cashless Wagering System (CWS) shall have the ability to recall the following monetary transactions:

a. Last twenty-five (25) monetary transactions transmitted to the host system; and
b. Last twenty-five (25) monetary transactions transmitted from the host system.

3-1.1.2 Monetary Transaction Display

Monetary transactions shall display the following:

a. The transaction value;
b. Date and time; and
c. Patron identification.

3-1.1.3. Event Log Display

A CWS with promotional or host-bonusing features, whether enabled simultaneously or separately with cashless features, may utilize a single 100-event log. The event log shall display the following information:

a. Type of transaction (upload/download);
b. The transaction value;
c. The time and date; and
d. Patron's account number or a unique transaction number, either of which can be used to authenticate the source of the funds (i.e., source from where funds came/went).

3-1.1.4 Meter Requirements

Cashless devices and cashless host systems shall incorporate electronic accounting meters which conform to the following requirements:

a. The operation of mandatory electronic accounting meters shall not be impacted directly for cashless type transactions;
b. The operation of mandatory electronic accounting meters shall exist and will increment to indicate:
    i. Electronic credits received from the central system---downloaded to electronic game from host.
    ii. Electronic credits transmitted to the central system---uploaded from electronic game to host.
c. Meters shall be labeled according to their function and be clearly understandable;
d. Cashless meter information shall be stored in units equal to the denomination of the electronic game or in dollars and cents for the following:
    i. Cashless Account Transfer In (AFT In or WAT In-Wagering Account Transfer In). The electronic game must have a meter that accumulates the total value of cashable credits electronically transferred to the electronic game from a wagering account by means of an external connection between the electronic game and a CWS;
    ii. Cashless Account Transfer Out (AFT Out or WAT Out-Wagering Account Transfer Out). The electronic game must have a meter that accumulates the total value of cashable credits electronically transferred from the electronic game to a wagering account by means of an external connection between the electronic game and a CWS;
    iii. Electronic Funds Transfer In (EFT In). The electronic game must have a meter that accumulates the total value of cashable credits electronically transferred to the electronic game from an On-line Monitoring and Control System to the electronic game when using EFT commands in the function of bonusing, promotions or cashless wagering.

3-1.1.5 Confirmation of Transactions

The electronic game or host card reader display shall be capable of providing confirmation/denial of every cashless transaction initiated. The confirmation/denial shall include the following:

a. The type of transaction (upload/download);
b. The transaction value;
c. The time and date;

d. The patron's account number or a unique transaction number, either of which can be used to authenticate the source of the funds (i.e., source from where funds came/went); and
e. Denied transactions shall provide a message describing the reason the transaction did not complete as initiated.

3-1.1.6 Error Conditions

For error conditions for the host system and electronic game, the following is required:

a. Host System: The following conditions shall be monitored and a message must be displayed to the patron at the host card reader for the following:
   i. Invalid PIN or patron ID (may prompt for re-entry); and
   ii. Account unknown
b. Electronic Game: An attempt to transfer credits on the electronic game to the host system which results in a communication failure and where the electronic game is the only available payout medium (the patron shall not cashout via ticket/voucher printer), must result in a hand-pay lockup or tilt on the electronic game.

3-1.1.7 Transaction Transfer

For cashless transactions where a patron initiates a transaction exceeding electronic game configured limits, the transaction may only be processed provided that the patron is clearly notified that he/she has received or deposited less than requested.

3-1.1.8 Cashless Electronic Game Identification

Each cashless compatible electronic game should be identifiable to a patron by means of host messaging which indicates the cashless capability of an electronic game or a specific sticker on an electronic game indicating to the patron, participation or non-participation of cashless operation. Use of any other means of identification is subject to the approval of the Commissioner.

3-1.2 CENTRAL SYSTEM SECURITY REQUIRMENTS

3-1.2.1 Communication Process

The host system shall implement the requirements within this section for changing any of the associated parameters or accessing any patron account. Additionally, the communication process used by the electronic game and the host system shall be robust and stable enough to

ensure that each cashless transaction is secure in order for failure event(s) to be identified and logged for reconciliation and subsequent audit.

3-1.2.2 Modified Patron Information

An authorized, logged employee shall only change all play information. Security of this information (including patron PIN codes or equivalent patron identification) must be guaranteed at all times.

3-1.2.3 Balance Adjustment

Any adjustment to an account balance outside the normal methodology shall require the approval of a supervisor and require log-in as evidence. All changes shall be logged and/or recorded indicating who, what, when, the item value before and after the change and the reason for the change.

5-1.2.4 Security Levels

The number of users with the requisite permission levels/login to adjust critical parameters must be limited and documented in a matrix format.

3-1.2.5 Unauthorized Transaction Prevention

The following minimal controls shall be implemented by the host system to ensure that electronic games are prevented from responding to commands for crediting outside of properly authorized cashless transaction (e.g. hacking):

a. Network hubs shall be secured (either in a locked/monitored room or area) with no access allowed on any node without valid login and password;
b. The number of stations where critical Cashless applications or associated databases could be accessed is limited;
c. The system shall have the capability to identify suspect patron and employee accounts to prevent their unauthorized use to include:
    i. Maximum number of incorrect PIN entries before lockout of account;
    ii. Flagging of those accounts where cards have been stolen;
    iii. Invalidating accounts and transferring balances into a new account; and
    iv. Establishment of limits for maximum cashless activity in and out as a global or individual variable to preclude money laundering.

3-1.2.6 Cashless Electronic Game Diagnostic Tests

Controls shall be in place for any diagnostic functionality available at the electronic game such that all activity shall be reported to the system that would reflect the specific account(s) and the individual(s) tasked to perform these diagnostics. This will allow for the audit of all cashless diagnostic activity that affects the associated electronic meters of the electronic game.

3-1.2.7 Smart Card

Systems which allow patrons to access their accounts using "Smart Card" technology, in which the account information, including the current balance, is maintained in the database of the host system, are permissible. Systems with the ability to maintain a patron account balance utilizing "Smart Cards" shall only be permissible when the host system validates the amount on the card and it is in agreement with the amount stored within the system database.

NOTE: "Smart Card" technology is not currently available within Chickasaw Nation operated gaming facilities. Implementation of "Smart Card" technology shall require the prior approval of Commissioner.

3-1.2.8 Communication Loss

When communication is lost between the cashless accounting system and the electronic game, the electronic game or interface element shall display a message to the patron notifying that cashless transfers cannot be processed.

3-1.2.9 Encryption

Transmission of all data to and from the electronic game shall employ a method of encryption approved by the Commissioner with the exception of bi-directional data transmission between an electronic game interface board and the electronic game.

3-1.3 AUDIT TRAILS CENTRAL SYSTEM

3-1.3.1 Required Logs

The central system shall have the ability to produce logs for all pending and completed cashless transactions. The logs shall be capable of being filtered by:

a. Electronic game number;
b. Patron account; and
c. Time/date.

3-1.4 FINANCIAL AND PATRON REPORTS

3-1.4.1 Required Reports

The system shall have the ability to produce the following financial and patron reports:

a. Patron account summary and detail reports shall be available to patron upon request and must include the following information:
   i. Beginning account balance;
   ii. Ending account balance;
   iii. Transaction information depicting electronic game number;
   iv. Amount; and
   v. Date/time.
b. Liability Report which shall include the following:
   i. Previous days ending value (today's starting value) of outstanding Cashless liability;
   ii. Total Cashless-In;
   iii. Total Cashless out; and
   iv. Current day's ending cashless liability.
c. Cashless meter reconciliation summary and detail reports, which shall reconcile each participating electronic game's cashless meter(s) against the host system's cashless activity;
d. Cashier Summary and Detail Reports, which shall include the following:
   i. Patron account;
   ii. Buy-ins;
   iii. Cash-out;
   iv. Amount of transaction; and
   v. Date and time of transaction.

3-1.5 PATRON ACCOUNTS

3-1.5.1 Transaction Requirements

All monetary transactions between a supporting electronic game and the host shall be secured either by card insertion in a magnetic card reader attached to the host and PIN entry or by other protected means (e.g., finger-print recognition). After patron identity confirmation, the electronic game may present transfer options to the patron on the display of the card reader, which requires selection using a keypad/touch-screen or other Commissioner authorized input device.

3-1.5.2 Addition of Money to Patron Account

Addition of money is allowed to an account via a cashier station or any system-controlled kiosk, assuming that such kiosk has been approved by the Commissioner. Money may also be added by any supported electronic game (e.g., through credits won, the insertion of ticket/vouchers, bills or coupons).

3-1.5.3 Removing Money from Patron Account

Removal of money is allowable from an account by downloading credits to the electronic game or by cashing out at a cashier cage or kiosk.

3-1.5.4 Movement of Credit Balance

A patron may be provided the option of moving system credit to the electronic game he or she is playing through "withdrawal" from the patron's account maintained by the system. When a patron ends play, the balance from the electronic game can be "deposited" into their patron account. Cashless gaming transactions are entirely electronic.

3-1.5.5 Personal Identification Number

Gaming Facility may issue a patron a unique magnetic card and personal identification number (PIN) in conjunction with an account on the system database.

3-1.5.6 Account Balance

Current account balance information shall be available on demand from any participating electronic game via the associated card reader after confirmation of patron identity and presented to the patron in terms of currency.

3-1.6 SOFTWARE VERIFICATION

3-1.6.1 System Integrity

The system shall have the capability to allow for an independent integrity check, from an outside source, of the software of each component affecting the integrity of the system and critical to its operation. This shall be accomplished by an authorized independent testing lab (ITL) certifying the device, which may be embedded within the component's software, or by having an interface port for a certified device to authenticate the media. The integrity check

must have a unique signature which shall be made available on the ITL certification report to provide a means for field testing the software to identify and validate the program. Prior to system and/or component approval, an ITL shall certify the integrity check method.

Table of Contents

CHAPTER 4BONUSING DEVICES AND SYSTEM STANDARDS

SECTION 4 1 BONUSING DEVICES AND SYSTEM REQUIREMENTS 2
4 1.1 Electronic Game with Bonusing Feature Requirements 2
4 1.2 Central System Security Requirements 3
4 1.3 Audit Trails Central System 4
4 1.4 Financial Reports 4

CHAPTER 4
BONUSING AND DEVICES SYSTEM STANDARDS

SECTION 4-1 BONUSING DEVICES AND SYSTEMS

4-1.1 BONUSING DEVICES AND SYSTEM REQUIREMENTS

4-1.1.1 Audit Trails Bonusing Transactions

Bonusing devices shall have the ability to recall the last twenty-five (25) monetary transactions transmitted from the host system. An electronic game with cashless or host promotional features, whether enabled simultaneously or separately with bonus features, may utilize a single 100-event log. The event log shall display the following information:

a. The transaction value;
b. The time and date; and
c. Patron identification, if available.

4-1.1.2 Bonusing Gaming Devices Meter Requirements

Bonusing devices shall incorporate electronic accounting meters that conform to the following electronic metering requirements:

a. The operation of the mandatory electronic accounting meter "coin-out "shall not reflect bonusing wins if the host pays those bonus wins to the electronic game;
b. The operation of the mandatory electronic accounting meter "handpays" shall reflect bonusing wins that are handpaid by the electronic game; and
c. In addition to the "coin-out" meter being incremented, the following additional specific bonusing meters shall be added:
    i. Total bonus in (received by electronic game) meter; and
    ii. Total bonus handpaid meter (bonus award received by electronic game that forced handpay condition).

NOTE: If a condition exists where a bonus award is transferred to an electronic game which results in a handpay, the bonus-in and bonus handpaid meters must increment for the value of the bonus award, provided the transferred amount is not wagered. If the protocol does not

support the meter, this requirement may be waived as long as there is a method to audit the bonus awards that are handpaid. The auditing method is subject to Commissioner approval.

4-1.1.3 Identification of a Bonusing Device

A patron should be able to identify each electronic game supported by a bonusing device (e.g. provide a host message or specific sticker that indicates the bonusing participation of the electronic game). Use of other methods of identification is subject to Commissioner approval.

4-1.1.4 Bonus Award Notification

The method utilized for a bonus win notification at an electronic game may include any combination of host messaging, sounds or visual indicators as long as it is approved by the Commissioner. Because bonuses are awarded directly to the electronic game, the electronic game itself shall reflect the amount of the bonus win. Additionally, electronic accounting meters and logs shall reflect all bonus transactions accordingly.

4-1.1.5 Feature Expiration and Disclaimers

The display of any disclaimers to the public is subject to the discretion and approval of the Commissioner due to non-uniformity across specific manufacturer implementations. Qualifying parameters and/or frequency of events and any specific information relevant to the award type (i.e., current multiplier value during the bonusing session) shall be displayed.

4-1.2 CENTRAL SYSTEM SECURITY REQUIREMENTS

4-1.2.1 Communication Process

The host system shall implement the rules within this section to allow for the secure changing of associated parameters. Additionally, the communication process shall be robust and stable enough to secure each bonus award transaction so failure event(s) can be identified and logged for subsequent audit and reconciliation.

4-1.2.2 Communication Failure

Messages shall either be displayed to the patron or be available under a diagnostic function, either at the game or system level, to indicate the reason for any bonus transaction failure due to a communication failure.

NOTE: In the above circumstance, the bonusing system must recognize the failure of a bonus win payment to be paid to the electronic game and notify appropriate gaming facility

personnel in order to implement a manual procedure to ensure proper payment. The Commissioner shall approve manual procedure(s).

4-1.2.3 Critical Parameter Modifications

Any changes to factors that may impact bonus redemption frequency or amount must be logged indicating, at minimum, the following:

a. The person authorizing the change;
b. The altered parameter;
c. The time and date of change;
d. The parameter value before and after the change; and
e. The reason for the parameter adjustment.

NOTE: Because bonus issuance may result in patron fairness issues, the CNDC shall implement Commissioner approved controls and/or procedures governing any prior changes to critical parameters.

4-1.2.4 Unauthorized Transaction Prevention

To ensure that electronic games are prevented from responding to commands for crediting outside of properly authorized bonus transactions (hacking), the following controls, at a minimum, shall be implemented by the host system:

a. Network hubs must be secured (either in a locked/monitored room or area) and no access is allowed on any node without valid login and password and system logging;
b. Limit the number of stations where critical promotional applications or associated databases may be accessed; and
c. Users with the requisite permission levels/login to adjust critical parameters are limited.

4-1.2.5 Bonusing Gaming Device Diagnostic Test

For any diagnostic functionality available at the device/system, controls shall be placed such that all activity would reflect a specific individual(s) tasked to perform the diagnostics whereby all bonusing diagnostic activity that affect the electronic game associated meters may be audited.

4-1.3 CENTRAL SYSTEM AUDIT TRAILS

4-1.3.1 Bonus Transaction Logs

The central system shall have the ability to produce logs for all complete bonus transactions to include the same information required on electronic game audit logs. In addition, these logs shall have the capability to be filtered by, at minimum, the following:

a. Electronic game number;
b. Time/date; and
c. Type of bonus transaction.

4-1.4 FINANCIAL REPORTS

4-1.4.1 System Reports

The system shall have the ability to produce the following reports:

a. Bonus summary and detail reports which shall include transaction information indicating the following:
    i. Electronic game number;
    ii. Amount;
    iii. Date/time;
    iv. Type of bonus; and
    v. Patron identification, if available.
b. Bonus meter reconciliation summary and detail reports which shall provide the reconciliations of each participating electronic game bonus meter(s) against the host system's bonus activity; and
c. Auditing report which shall provide modification details whenever critical parameters are modified.

NOTE: There must be a report or method that will allow the comparison of the theoretical payout percentage of the bonusing device to the actual payout of the bonusing device.

Table of Contents

CHAPTER 5 PROMOTIONAL DEVICES AND SYSTEM STANDARDS

SECTION 5-1 PROMOTIONAL DEVICES AND SYSTEM REQUIREMENTS

5-1.1 Electronic Game with Promotional Feature Requirements 2
5-1.2 Central System Security Requirements 4
5-1.3 Audit Trails Central System 5
5-1.4 Financial Reports 5
5-1.5 Patron Accounts 6
5-1.6 Software Verification 7

CHAPTER 5
PROMOTIONAL DEVICES AND SYSTEMS STANDARDS

SECTION 5-1 PROMOTIONAL DEVICES AND SYSTEMS

5-1.1 PROMOTIONAL DEVICES AND SYSTEM REQUIREMENTS

5-1.1.1 Audit Trails Promotional Transactions

Promotional devices shall have the ability to recall the following promotional transactions:

a. Last twenty-five (25) promotional transactions transmitted to the host system
b. Last twenty-five (25) promotional transactions received from the host system

5-1.1.2 Promotional Transaction Display

Promotional transactions shall display the following:

a. The transaction value; and
b. Date and time.

5-1.1.3 Event Log Display

Promotional devices with bonusing or host-cashless features, whether enabled simultaneously or separately, may utilize a 100-event log. The event log shall display the following information:

a. Transaction type (upload/download)
b. Any restrictions (cashable or non-cashable, etc.)
c. The transaction value; and
d. The time and date.

5-1.1.4 Meter Requirements for Promotional Electronic Games

Promotional devices shall incorporate electronic accounting meters that conform to electronic metering requirements and must not be impacted directly for promotional transactions. The following specific promotional meters shall be added:

a. Total promotional awards in (received by electronic game) meter, which includes:
    i. Total non-restricted (cashable), promotional in if applicable; and
    ii. Total restricted (non-cashable), promotional in if applicable.
b. Total promotional awards out (removed from the electronic game and transferred back to player account) meter, if applicable, which includes:
    i. Total non-restricted (cashable) promotional out; and
    ii. Total restricted (non-cashable) promotional out.

NOTE: During patron wagering, if restricted and non-restricted promotional credits are co-mingled on a single credit meter at an electronic game, when restricted promotional credits are transferred to an electronic game and the electronic game has existing cashable credits available, all restricted credits must be wagered before any non-restricted credits are committed.

5-1.1.5 Error Conditions

Messages to indicate the reason for any transaction failure must be displayed to the patron and the following conditions must be monitored:

a. Invalid PIN or patron/player ID (can prompt for re-entry up to maximum allowed); and
b. Account unknown.

5-1.1.6 Transaction Transfers

For promotional transactions where a patron initiates a transaction exceeding electronic game configured limits (i.e. credit limit, etc), the transaction may only be processed provided that the patron is clearly notified that the value received or deposited is less than requested.

5-1.1.7 Promotional Feature Identification

Each electronic game that supports the promotional feature should be clearly identified using the following methods:

a. Host message for electronic game which indicates promotional capability; or
b. Specific sticker on electronic game to indicate participation.

Any other method of identification must be approved by the Commissioner.

NOTE: Display menu items pertaining to promotional operation shall be removed from an electronic game which is not participating.

5-1.1.8 Promotional Award Notification

The method of notification for promotional awards may include any combination of host messaging, sounds, or visual indicators as deemed acceptable by the Commissioner. Because promotional awards are paid directly to the electronic game, the electronic game itself shall reflect the amount of promotional awards. Additionally, electronic accounting meters and logs must reflect all promotional transactions.

5-1.1.9 Feature Expiration and Disclaimers

The display of any disclaimers to the public, including but not limited to the expiration of a promotion, is subject to the discretion of the Commissioner.

5-1.2 CENTRAL SYSTEM SECURITY REQUIREMENTS

5-1.2.1 Communication Process

Rules within this section shall be implemented by the host system to allow for the secure changing of any associated parameters. Additionally, the communication process utilized shall be robust and stable to secure each promotional transaction so that failed event(s) can be identified and logged for subsequent audit and reconciliation.

5-1.2.2 Critical Parameter Modifications

Any changes to parameters that may impact promotion redemption frequency or amount must be logged indicating the following:

a. Person authorizing the change;
b. Altered parameter;
c. Time and date of change;
d. Parameter value before and after the change; and
e. Reason for parameter adjustment.

5-1.2.3 Unauthorized Transaction Prevention

To ensure that electronic games are prevented from responding to commands for crediting outside of properly authorized promotional transactions (hacking), the following controls, at a minimum, shall be implemented by the host system:

a. Network hubs are secured (in a locked/monitored room or area) and no access is allowed on any node without valid login and password;

b. Limit the number of stations where critical promotional applications or associated databases may be accessed;
c. Users who have the requisite permission levels/login to adjust critical parameters are limited; and
d. System procedures shall be in place to identify and flag suspect patron and employee accounts to prevent unauthorized use and include the following:
    i. Flagging of account where cards (other instruments) have been stolen;
    ii. Invalidating accounts and transferring all balances into a new account; and
    iii. User roles or procedures are established in promotional parameter configuration applications which enforce separation of controls.

5-1.2.4 Promotional Device Diagnostic Tests

For diagnostic functionality available at the device/system, controls shall be placed such that all activity would reflect specific account(s) and the individual(s) tasked to perform the diagnostics whereby all promotional diagnostic activity affecting the electronic game associated meters may be audited.

5-1.2.5 Communication Loss

When communication is lost between the promotional accounting system and the electronic game(s), promotional transfers shall not be processed until communication is re-established. The electronic game or interface elements must provide a means for informing the patron that promotional transfers are currently unable to be processed for any patron initiated transfers.

5-1.3 CENTRAL SYSTEM AUDIT TRAILS

5-1.3.1 Promotional Transaction Logs

The central system shall have the ability to produce logs for all complete promotional transactions to include the same information required on the electronic game audit logs and shall have the capability to be filtered by the following:

a. Electronic game number;
b. Patron account; or
c. Promotional identification.

5-1.3.2 Transaction Report

A patron must be provided the ability to review a complete and comprehensive transaction report of all promotional transactions concluded and indicating each separate transaction including the amount.

NOTE: Audit trail could be accessed on the electronic game via the card reader (or equivalent) or such information could be requested from the gaming facility floor personnel who process such requests and create reports from the promotional system.

5-1.4 FINANCIAL REPORTS

5-1.4.1 Required Reports

The system shall have the ability to produce the following reports:

a. Patron promotional account summary and detail reports which shall include the following:
    i. Beginning and ending balance(s);
    ii. Transaction information including electronic game number;
    iii. Amount;
    iv. Date/time; and
    v. Type (if multiply types are supported.)
b. Liability report which shall include the following:
    i. Outstanding promotional liability for previous day's ending value (today's starting value);
    ii. Total promotional in;
    iii. Total promotional out;
    iv. Expired promotional value; and
    v. Current day's ending promotional liability.
c. Promotional meter reconciliation summary and detail reports which shall provide reconciliation of each participating electronic game promotional meter(s) against the host system's promotional activity.

5-1.5 PATRON ACCOUNTS

5-1.5.1 Patron Transactions

Awards which are tied to a specific patron's account, the gaming facility may issue to a patron a unique magnetic card which requires a personal identification number (PIN) that corresponds with an account on the host system's database. Security of this information must be

guaranteed at all times. Use of other methods that uniquely identify a patron is subject to the discretion and approval of the Commissioner. Such transactions between a supporting electronic game and the host system shall be secured either by card insertion into a magnetic card reader attached to the host system or other protected means. Promotional options are presented to the patron on the card reader display which requires selection using a keypad/touchscreen before occurring.

5-1.5.2 Removal of Promotional Credits from Patron Account

Removal of promotional credits from a patron's account may occur when:

a. Promotional credits are downloaded to the electronic game;
b. Promotional credits are redeemed for merchandise/cash via cashier; or
c. Promotional credits expire.

5-1.5.3 Promotional Credit Movement

Patrons may have the option of moving some system promotional credit to the electronic game they are playing through "withdrawal" from the patron's account maintained by the system. When the patron has finished play, the patron may either "deposit" the balance from the electronic game into the patron account or redeem the credits from the electronic game via the available payout mechanism utilized by the gaming facility. Promotional gaming transactions are entirely electronic.

5-1.6 SOFTWARE VERIFICATION

5-1.6.1 System Integrity

Each component that would affect the integrity of the system must have the ability to allow for an outside independent integrity check of the component software which is critical to its operation. This shall be accomplished through certification of the device by authorized independent test lab (ITL) which may be embedded within the software of the component or have an interface port for a certified device to verify the program storage media. The ITL shall test and certify the integrity check method prior to system and/or component certification. The ITL shall provide within the certification report to the Commissioner, the unique signature from the integrity check to be utilized for field verification.

Table of Contents

CHAPTER 6– PROGRESSIVE SYSTEM STANDARDS

SECTION 6-1 SYSTEMS
6-1.1 Progressive System Requirements 2
6-2.1 Progressive Controller Requirements 4
6-3.1 Progressive Prizes 7
6-4.1 Progressive Prizes Paid Over Time (Annuities) 8
6-5.1 Progressive Percentage Requirements and Odds 9
6-6.1 Software Verification 9
6-7.1 Multi-Site Progressive Requirements 9
6-8.1 Multi-Site Progressive Procedures 12
6-9.1 Multi-Site Progressive Prizes 12

CHAPTER 6
PROGRESSIVE SYSTEM STANDARDS

SECTION 6-1 PROGRESSIVE SYSTEM

6-1.1 PROGRESSIVE SYSTEM REQUIREMENTS

6-1.1.1 Progressive Metering

One or more progressive electronic game(s) shall be linked, directly or indirectly, to an electrical or electronic device, including the progressive meter that shows the prize which increments at a set rate of progression as credits are wagered. This device is the progressive controller. For games that have mystery progressives, the prize does not have to be displayed to the patron. However, there shall be an indication to the patron that a mystery prize does exist.

6-1.1.2 Progressive Meter Display Requirements

The following rules apply to all progressive meter displays:

a. A progressive meter shall be visible to all patrons who are playing an electronic game, which may potentially award the progressive amount if the progressive prize combination appears, except for mystery prizes;
b. A patron shall know that he is playing a progressive game and not have to play the maximum bet amount to find out. The above are parameters that are verified on-site prior to implementation; and
c. The progressive meter shall display the current total of the progressive prize in the monetary value or credits (the monetary value may vary for multi-site progressive meters.) Because the polling cycle does cause a delay, the progressive meter need not precisely show the actual monies in the progressive pool at each instance.

6-1.1.3 Types of Updating Displays

The use of an odometer and other paced updating displays are allowed. The progressive meter shall display the winning prize value within 30 seconds of the progressive system's recognition

of the win. In the case of the use of paced updating displays, the progressive system meter shall display the winning value after the progressive prize broadcast is received from the progressive system. The length of time allowed before the progressive must shut down shall be approved by the Commissioner.

6-1.1.4 Progressive Limitations for Digital Display

The progressive limit shall be set in accordance with the digital limitations of the sign.

6-1.1.5 Alternating Display Requirements

If multiple items of information are to be displayed on an electronic game or progressive meter, it is sufficient to have the information displayed in an alternating fashion.

6-1.1.6 Meter Requirements During Progressive Wins

When a progressive prize is recorded on an electronic game that is attached to the progressive controller, the progressive controller shall allow for the following to occur on the device and/or progressive meter:

a. Display of the winning amount;
b. Display of the electronic game identification that caused the progressive meter to activate if more than one (1) electronic game is attached to the controller;
c. The progressive controller shall automatically reset to the reset amount and continue normal play if more than one electronic game is attached to the controller; and
d. Display the new progressive values which are current on the link.

6-2.1 PROGRESSIVE CONTROLLER REQUIREMENTS

6-2.1.1 Progressive Controller

The progressive controller shall calculate the values of the progressive prizes and display the information within a progressive electronic game link and the associated progressive meter(s). A progressive controller may consist of more than one component and includes, but is not limited to, the following:

a. PC-based computers;
b. Wiring;
c. Interface boards; and
d. Collection nodes.

6-2.1.2 Configuring Progressive/Mystery Prize Amounts

The method by which progressive system prize parameter values are modified or entered is to be secure. All progressive electronic games or any progressive system component tested and certified by an ITL and approved by the Commissioner shall display upon request the following information for each progressive prize offered, as applicable:

a. Current value;
b. Overflow;
c. Progressive Wins, numerical count;
d. Progressive Wins, value amount;
e. Initial Base;
f. Maximum Limit;
g. Increment rate;
h. Secondary increment;
i. Hidden increment
j. Reset amount; and
k. Participating electronic game(s).

6-2.1.3 Monitoring Credits Wagered

During the normal mode of progressive electronic games, the progressive controller shall continuously monitor each electronic game on the link for credits wagered and shall multiply the same by the rate of progression and denomination in order to determine the correct amounts to apply to the progressive prize. An accuracy of at least four (4) sigma shall be ensured.

6-2.1.4 Progressive Controller Meter Requirements

If the progressive controller is configured to offer more than one (1) progressive prize, the progressive controller or other approved progressive system component shall keep the

following information in non-volatile memory, which shall be displayed on demand. Additionally, meters shall have a minimum accuracy of four (4) sigma.

a. The number of progressive jackpots won on each progressive level;
b. The cumulative amounts paid on each progressive level;
c. The maximum limit amount of the progressive prize for each level displayed;
d. The base and/or reset amount of the progressive payout for each level displayed; and
e. The rate of progression for each level displayed.

6-2.1.5 Progressive Controller Error Conditions

When a controller error occurs, it is preferred that it alternates the displays, or equivalent, between the current amount and an appropriate error message that is visible to all patrons, or can alert the gaming facility to the error condition. If any of the following events occur, the electronic game(s) that has the error is to be disabled and the appropriate message shall be displayed on the progressive meter, other approved progressive system component or electronic game:

a. During a communication failure between the electronic game and controller or anywhere within the progressive controller system;
b. When there have been multiple communication errors;
c. When a controller checksum or signature has failure;
d. When a controller's RAM or program storage device mismatch or failure occurs;
e. When the current progressive prize is larger than the limit;
f. When the jackpot/top prize configuration is lost or is not set;
g. If there has been an unreasonable amount of credits wagered (an unreasonable amount of credits wagered is defined by the progressive configuration which is based on the number of wagers and number of electronic game machine(s); or
h. If the game meters are validated against the controller's meters (via communications between the game board and controller) and they do not reconcile.

6-2.1.6 Transferring of Progressive Wins

The progressive controller shall permit a means of transferring a progressive jackpot prize and/or other prizes to another progressive controller or other Commissioner approved progressive system component. Transferring progressive prizes shall meet tribal internal control procedures.

6-2.1.7 Communication Requirements

There shall be a secure two-way communication protocol between the main electronic game processor board and progressive. In addition, the progressive system shall be able to:

a. Send to the electronic game the amount that was won for metering purposes; and
b. Constantly update the progressive meter as play on the link is continued.

6-2.1.8 Progressive Controller Access Requirements

Each progressive controller used with progressive electronic games shall be housed in a secure environment allowing only authorized accessibility. Access to the controller must conform to tribal internal control procedures.

6-2.1.9 Progressive Controller Program Interruption

After a program interruption, the software shall be able return to the state it was in immediately prior to the interruption.

6-2.1.10 Base Progressive Prize Amount

The initial amount of a progressive prize amount shall begin at or above an award value for that particular electronic game that maintains the entire payout percentage.

6-3.1 PROGRESSIVE PRIZES

6-3.1.1 Substitution of Progressive Levels

In accordance with the electronic game rules, where there are multiple levels of progressive prizes, the patron must always be paid the higher progressive amount if a particular combination is won that should trigger the higher paying award. This may occur when a winning combination may be evaluated as more than one of the available paytable combinations (i.e., a flush is a form of a straight flush and a straight flush is a form of a royal flush). Therefore, situations may occur where the progressive levels shall be substituted to ensure the patron is being awarded the highest possible progressive value based on all combinations by which the outcome may be defined.

6-3.1.2 Electronic Game Requirements When a Progressive Prize is Awarded

When a progressive prize has been awarded, the electronic game or other approved progressive component shall perform the following:

a. Display an appropriate message;
b. The software and game shall lock-up until the award has been paid by the attendant, unless the prize is transferred to the patron's credit meter; and
c. All progressive related meters shall be updated.

NOTE: In the case of a patron winning a mystery jackpot, a means shall be available to notify the patron that an award has been won.

6-3.1.3 Progressive Electronic Game Metering Requirements

The electronic game is required to update its electronic meters to reflect the winning progressive prize amount consistent with the following electronic meter requirements:

a. The credit meter is maintained in monetary value or credits;
b. The progressive meter is incremented to whole credit amounts; or
c. The prize, in monetary value, is converted to credits on transfer to the patron's credit meter. The conversion from monetary value to credits shall always round

up.

NOTE: Progressives exceeding jurisdictional tax limits, if one exists, shall require payment by an attendant.

6-4.1 PROGRESSIVE PRIZES PAID OVER TIME (ANNUITY)

6-4.1.1 Notification of Payment Over Time

Any Chickasaw Nation operated gaming facility which offers a progressive annuity shall comply with the display and sign requirements or internal control requirements. In addition, the following information shall be displayed at each participating electronic gaming device:

a. That the progressive prize is to be paid in the form of an annuity and not in one lump sum;
b. The period of time covering the payments; and
c. A statement that as to whether or not the present value of the prize is available.

6-5.1 PROGRESSIVE PERCENTAGE REQUIREMENTS AND ODDS

6-5.1.1 Linked Electronic Game Odds

Each progressive prize offered in participating electronic games on a link shall have the same winning probability, adjusted for the denomination played. For instance, the probability shall remain the same for multiple denomination games based on the monetary value of the wager (a two (2) coin one dollar ($1) game has the probability of one (1) in ten thousand (10,000) and a two (2) coin, two dollar ($2) game on the same link has the probability one (1) in five thousand (5,000)).

6-6.1 SOFTWARE VERIFICATION

6-6.1.1 Software Verification Requirements

The controller software and any associated critical software used within a progressive system shall have the ability to allow for an independent integrity check of the control program from

an outside source. This integrity check shall be accomplished by being authenticated by a device that has been tested and certified by a approved ITL, which may be embedded within the control program or having an interface port for a device to authenticate the media. The authorized ITL shall provide a unique signature for an integrity check within the laboratory certification to be utilized for field verification.

6-7.1 MULTI-SITE PROGRESSIVE REQUIREMENTS

6-7.1.1 Multi-Site Central Computer Requirements

The method of communication shall be a non-shared, dedicated line or equivalent. Dial-tone systems may be used as long as electronic games at the local site would not be able to be disabled from another outside line or manipulated by any other means. When the method of communication is a shared line, appropriate encryption and security, as approved by the Commissioner, shall be in place to avoid corruption or compromise of data.

6-7.1.2 Data Collection Requirements

Multi-site systems shall ensure that security information and the amounts-wagered information is communicated, at least once every sixty (60) seconds for terrestrial lines (dedicated phone lines), and a reasonable amount of time, to be determined by the Commissioner, for radio frequency from each participating device to the progressive controller system.

6-7.1.3 Multi-Site Encryption Method

All multi-site property systems shall utilize an encryption method that has been tested by an ITL and approved by the Commissioner. Such encryption method shall include the use of different encryption keys or seeds so that encryption can be changed in a real-time fashion.

6-7.1.4 Multi-site Monitoring and Other On-Line System Requirements

The on-line system must be able to monitor the meter readings and error events of each device regardless of any outside monitoring system. Therefore, the on-line security system requirement when electronic games are in play is not altered in any way.

6-7.1.5 Central Monitoring System Power Supply

The on-line monitoring computer site shall be equipped with non-interruptible power supply that will allow it to conduct an orderly shutdown if the power is lost. Should the system utilize hard disk peripherals, the central computer shall be capable of on-line data redundancy.

6-7.1.6 Communication Failure

An electronic game shall immediately disable itself and suspend play if communication is lost to the local collection unit and security hub. The electronic game may resume play only when communication to the local hub is restored. If the communication is lost between the local hub and the central computer, the electronic game may continue to play. However, once communications are re-established, the system-wide totals are to be updated; not withstanding this rule, if the communication is lost for more than twenty-four (24) hours, the site must be shut down.

6-7.1.7 On-Line Monitoring System Required Reports

Any multi-site on-line monitoring system shall supply, as requested, the following reports daily or on-demand:

a. Progressive Summary including beginning and ending progressive prize values;
b. Aggregate Contribution Report; and
c. Payoff Report by link and/or specific electronic gaming device.

6-7.1.8 Multi-Site Progressive System Meter Readings

Any meter reading data shall be obtained in real time in an on-line, automated fashion. When requested to do so, the multi-site progressive system shall return meter readings on all electronic games attached to the system. The meter readings shall be identical to the meter information retained in the electronic game(s) account meters. Manual reading of meter values may not be substituted for these requirements. Meters shall be required in either credit or monetary value and "credits bet" shall be defined as all amounts wagered.

NOTE: The purpose of the above credits bet meter reading is to reconcile the progressive prize(s) in conjunction with the rate of progression and wagers.

6-7.1.9 Multi-Site Progressive System Door Monitoring

The multi-site progressive system shall have the ability to monitor entry into the front door of participating electronic games and report the events immediately to the on-line system.

6-7.1.10 Progressive Prize Win During Poll Cycle

If a progressive prize is recognized in the middle of a system-wide poll cycle, the progressive meter may contain a value less than the aggregated progressive prize amount calculated by the multi-site progressive system. The credit values from the remaining portion of the poll cycle will be received by the multi-site progressive system but not the local site, in which case, the progressive prize amount paid will always be the higher of the two reporting amounts.

6-8.1 MULTI-SITE PROGRESSIVE PROCEDURES

6-8.1.1 Multi-Site Progressive Procedure Requirements

Procedures shall be developed for multi-site progressives and be approved by the Commissioner prior to implementation within Chickasaw Nation operated gaming facilities. Internal Controls shall be generated and approved by the Commissioner to adequately document the procedures for the following events:

a. Reconciliation of meters and jackpot prizes;
b. Collection drop of electronic game funds;
c. Progressive prize verification and payment procedures that include for a Commissioner's designee to be present for independent prize verification and payment when the progressive prize is:
   (i) an attendant pay; and
   (ii) a value to be established by the Commissioner;
d. System maintenance;
e. System security;
f. System failures including:
   i. The local hub;
   ii. The central site;
   iii. Failures in communications; and

iv. Backup and recovery.

6-9.1 MULTI-SITE PROGRESSIVE PRIZES

6-9.1.1 Multi-Site Progressive Prizes During the Same Polling Cycle

When multiple progressive prizes occur where, in the absence of a progressive controller or on-line monitoring system time stamp, there is no definitive way of knowing which progressive prize occurred first, they will be deemed to have occurred simultaneously. Therefore, the Chickasaw Nation Division of Commerce shall develop procedures, which shall be subject to approval by the Commissioner, for payment of such progressive prize occurrences. In addition, if there is a communication failure, a winning patron wagering at a non-updated site may be eligible to win a progressive prize.