

Appendix A

Technical Standards for Gaming Devices, Components, Software and Progressive Gaming Devices

Revised 2015

PART I
DEFINITIONS AND CONVENTIONS

CHAPTER 1
DEFINITIONS

1. “Award” means a jackpot, a win and/or a prize.
2. “Base amount” means the amount of a progressive jackpot initially offered before increases.
3. “Bill acceptor box” means the secured compartment of a gaming device that contains currency, tickets, and/or coupons.
4. “Bonus round” means a portion of a game cycle that occurs after the initial screen and does not constitute the initiation of a new game cycle.
5. “Bonusing transaction” means an award that is not described in the paytable of a gaming device, that is based upon predetermined events or criteria established by the Gaming Facility Operator, and that results in the electronic transfer of credits to a gaming device. Bonusing transactions are made to patrons through predefined gaming devices.
6. “Control program” means software that operates a gaming device’s functions.
7. “Coupons” are paper slips or other tangible media that are used in promotional transactions. Coupons may provide for restricted credits or unrestricted credits.
8. “Credit” means the unit of value that is used to play a game on a gaming device or that may be redeemed for other value.
9. “Critical files” are those files which affect a gaming device’s play, operation, or outcome.
10. “Distributor” means a person who obtains a gaming device, gaming device software, host system software, or kiosk from a manufacturer or other distributor and intends to furnish it to the Tribe for a gaming purpose.
11. “Error condition” means:
 - a) coin-out jam;
 - b) hopper empty or timed out;
 - c) hopper runaway or extra coin paid out;
 - d) RAM error;
 - e) low RAM battery, for batteries external to the RAM itself, or low power source;
 - f) program error or authentication mismatch;

- g) reverse coin-in;
 - h) reel spin errors;
 - i) coin-in jam;
 - j) door open (including bill acceptor);
 - k) currency-in jam; and
 - l) power reset.
12. “Gaming device” means a contrivance that allows a person to play a game of chance, which may be affected by skill, and that is activated upon receipt of some form of consideration and which awards a jackpot or prize. Gaming device includes associated equipment or components that affect play of the game, outcome of the game, patron safety or the MCS.
13. “Gaming device file” means a database of every gaming device in operation, including at least the following information for each gaming device:
- a) unique interface element/gaming device identification number;
 - b) gaming device identification number as assigned by the gaming facility;
 - c) denomination of the gaming device;
 - d) theoretical hold of the gaming device; and
 - e) control programs within the gaming device.
14. “GLI-20” means the kiosk standards that have been produced by Gaming Laboratories International, LLC (“GLI”) for the purpose of providing independent certifications to kiosk suppliers.
15. “Host system” means the Gaming Facility Operator’s MCS and, if used, an incentive system and/or validation system.
16. “Incentive system” means the components of the host system (whether hardware, software, or both and whether integral to the MCS or integrated with the MCS) that control incentive transactions. Gaming devices involved in incentive transactions are also part of the incentive system. Gaming devices not involved in incentive transactions are not part of the incentive system.
17. “Incentive transaction” means the electronic transfer of credits to or from a gaming device or kiosk in a promotional transaction or to a gaming device in a bonusing transaction. An incentive transaction is either a promotional transaction or a bonusing transaction. The following are not incentive transactions:
- a) a patron receiving credits on a gaming device by inserting cash or coins into the gaming device;
 - b) a patron receiving credits on a gaming device by redeeming a ticket other than a coupon at the gaming device;

- c) a patron obtaining or redeeming a ticket other than a coupon at a kiosk or cashier; and
 - d) a patron receiving credits on a gaming device by winning a prize described in the paytable of a gaming device during a game cycle, including a prize awarded during a bonus round.
18. “Incremental amount” means the difference between the amount of a progressive jackpot and its base amount.
19. “Jackpot” means a win of cash or its equivalent that results in a handpay.
20. “JMS” (also known as “SEAS,” the State Electronic Access System) means a joint monitoring system utilized by the Tribal Gaming Office and the State Gaming Agency to access MCS data on a real-time, read-only basis, consistent with Compact Section 3(b)(5).
21. “Kiosk” means a device that interfaces with the MCS and/or the host system and may be used by a patron to perform the following tasks:
- a) ticket/coupon redemption;
 - b) ticket issuance; and/or
 - c) bill breaking.
22. “Laboratory” means a gaming test laboratory independent of the Tribe and the State which is licensed by the Tribal Gaming Office and certified by the State Gaming Agency.
23. “Logic area” means a locked cabinet area which houses electronic gaming device components that have the potential to influence the random number generator critical to the operation of a gaming device.
24. “Manufacturer” means a person who manufactures, produces or assembles a gaming device, gaming device software, host system software, or kiosk and who intends to furnish it to a distributor or the Tribe.
25. “MCS” means an online monitoring and control system (also known as a game management system) that regularly monitors each gaming device via a real time defined communication protocol.
26. “MCS critical files” means those files in the MCS that affect the collection, storage and comparison of gaming device play and operation.
27. “Mechanical based RNG games” are games that use the laws of physics to generate the outcome of the game.

28. “Modify” or “modification” means:

- a) with respect to a gaming device, a change or alteration in an approved gaming device that affects the manner or mode of play or the percentage paid by the gaming device, including a change in or update to a control program or critical file, but not a:
 - 1) conversion from one approved mode of play to another approved mode of play;
 - 2) replacement of one gaming device component with another preapproved gaming device component; or
 - 3) rebuilding of a previously approved gaming device with preapproved gaming device components.
- b) With respect to a host system, the terms “modify” and “modification”:
 - 1) Mean installing new MCS software, incentive system software, or validation system software (e.g., converting from Bally’s MCS software to Aristocrat MCS software or adding Aristocrat validation software to Aristocrat MCS software);
 - 2) Mean installing a new major release of MCS software, incentive system software, or validation system software (e.g., upgrading from Aristocrat Oasis 10.5 to Aristocrat Oasis 11.0);
 - 3) Mean installing a new minor release of MCS software, incentive system software, or validation system software (e.g., upgrading from Aristocrat Oasis 11.1 to Aristocrat Oasis 11.2); or
 - 4) Mean enabling modules of the host system that were installed previously (e.g., enabling the Personal Banker® module of Aristocrat’s Oasis Slot Accounting System for the first time, but not using features of the Personal Banker® module for the first time after the Personal Banker® module has been enabled).

The terms “modify” and “modification” do not mean applying service releases, service packs, or patches to host system software, except where the releases, packs, or patches require prior testing and approval by a laboratory.

29. “Mystery award” means an award that is not specifically called out on a payglass or game screen.

30. “Par sheet” means a document that depicts the possible outcomes from the play of a gaming device, the probability of occurrences of each, the contribution of each winning outcome to the payback of a gaming device, theoretical hold, and other data applicable to a gaming device.

31. “Priority events” are:

- a) loss of communication with interface element;

- b) loss of communication with gaming device;
 - c) memory corruption of the interface element; and
 - d) RAM corruption of a gaming device.
32. “Prize” means a win of merchandise or other items of value other than cash or its equivalent.
33. “Progressive gaming device” means a gaming device that has an increasing jackpot, based on a function of credits that are bet. This includes games that award progressive jackpots or a “pool” based on criteria other than obtaining winning symbols on the gaming device, such as a mystery award. However, this does not include games that incorporate a bonus feature as part of the game theme, which offers jackpots that increase as the game is played and, as well, is not configurable.
34. “Progressive jackpot” means a payoff that increases automatically as gaming devices are played.
35. “Promotional transaction” means an electronic transfer of credits (not described in the payable of a gaming device) to or from a gaming device or kiosk based upon predetermined events or criteria established by the Gaming Facility Operator. The term promotional transaction does not include an electronic transfer of credits resulting from a bonusing transaction or other award. A promotional transaction may be a static enticement requiring no patron or gaming device activity before redemption or may be based upon patron play.
36. “Real time” means any time at, or before, the end of the relevant polling cycle.
37. “Restricted credits” refer to credits obtained in an incentive transaction that may be used only for play on a gaming device (i.e., the credits may not be redeemed for cash).
38. “Significant events” consist of standard and priority events.
39. “Slot tournament” means an organized event that permits a patron to either purchase or be awarded the opportunity to engage in competitive play against other patrons.
40. “Standard events” are:
- a) power resets;
 - b) power failure;
 - c) hand pay conditions;
 - d) gaming device award;
 - e) cancelled credit hand pay;
 - f) progressive jackpot;
 - g) door openings, including:

- 1) slot door;
 - 2) drop door;
 - 3) bill acceptor box; and
 - 4) logic door.
- h) coin or token-in errors;
 - i) coin or token jams;
 - j) reverse coins or tokens-in;
 - k) bill acceptor errors;
 - l) bill acceptor jam;
 - m) gaming device low RAM battery error;
 - n) reel spin errors, with individual reel number identified;
 - o) coin or token-out errors;
 - p) hopper jams;
 - q) hopper runaways or extra coins paid out;
 - r) hopper empties;
 - s) printer errors (if printer supported);
 - t) bill acceptor box removal; and
 - u) logic board removal.
41. “Tickets” (also known as vouchers) are paper slips or other tangible media that are treated as a unit of currency and that may be exchanged for credits by a gaming device. Tickets also generally may be redeemed for cash at a cashiers cage, a kiosk, or other locations.
42. “Unrestricted credits” refer to credits obtained in an incentive transaction that are capable of being either used for play on a gaming device or redeemed for cash at the discretion of the player.
43. “Validation system” means a component or components of the host system (whether hardware, software, or both and whether integral to the MCS or integrated with the MCS) that controls the issuance, acceptance, and validation of tickets and coupons.

CHAPTER 2 CONVENTIONS

1. Time shall be expressed in local 24 hour format.
2. Dates shall be expressed in local month, day, and year format.
3. Deadlines shall be calculated consistent with Compact Section 21.
4. Unless the context clearly dictates otherwise, the effect of words written in the singular is the same as if they had been written in the plural and the effect of words written in the plural is the same as if they had been written in the singular.

5. Upon mutual agreement, the Tribe and the State Gaming Agency may waive any requirement of this Appendix.
6. Once executed, this Appendix A supersedes all previous versions of this Appendix entered into between the State and the Tribe and is immediately in effect. Notwithstanding the foregoing, the Tribe may continue to operate the MCS, kiosks and/or gaming devices that it owns or operates as of the date it executes this Appendix A, and the Tribe may operate any MCS or used gaming devices that it may acquire in the future, regardless of whether they meet the technical standards of this Appendix A, provided that:
 - a) the MCS and/or gaming devices meet the technical standards of a previous version of Appendix A;
 - b) an MCS or gaming device that does not meet the technical standards of this Appendix A shall not be part of, or include, an incentive system or be involved in incentive transactions; and
 - c) if a gaming device issues or redeems tickets, the MCS and each such gaming device shall meet the requirements of Part II, Chapter 2 of this Appendix A.
7. Regardless of the applicability of the technical standards of this Appendix A, all other applicable requirements of this Appendix A must be met.
8. Until such time as other standards are adopted or a separate Appendix for kiosks and their use in a Gaming Facility is agreed upon, kiosks, as defined in this Appendix A, shall comply with GLI 20 standards and shall be regulated pursuant to the specific requirements set forth in this Appendix A. Kiosks shall be regulated pursuant to these specific requirements even if they include marketing and ATM features; however, while those marketing or ATM features may be subject to regulation under other provisions of the Compact or its appendices, those features shall not be regulated by the provisions of this Appendix A. Likewise, a device that may be used by a patron that performs only marketing or ATM functions and does not perform ticket/coupon redemption, ticket issuance or bill breaking shall not be subject to regulation under this Appendix.

PART II
GAMING DEVICE REQUIREMENTS

CHAPTER 1
HARDWARE

2.1.1 Physical Security.

Each gaming device shall withstand forced illegal entry which would not leave behind evidence of the attempted entry, unless such entry causes a significant event that when manually reset does not affect the subsequent play or any other play, award or aspect of the game.

2.1.2 Patron Safety.

All gaming devices shall not subject a patron to any physical hazards. Gaming devices, shall comply with the UL, FCC and OSHA standards in effect at time of manufacture, and such safety and electro-magnetic interference and compatibility testing as may be required under applicable state and/or federal statute, regulation, law or act.

Environmental Effects on Game Integrity

2.1.3 Game Integrity Standard.

A laboratory shall determine whether or not outside influences affect game fairness to the patron or create cheating opportunities. A gaming device shall be able to withstand the following tests, resuming game play without operator intervention:

- a) Random Number Generator. The random number generator and random selection process shall be impervious to influences from outside the device, including, but not limited to, electro-magnetic interference, electro-static interference, and radio frequency interference;
- b) Electro-Magnetic Interference. Gaming devices shall not create electronic noise that affects the integrity or fairness of neighboring gaming devices or associated equipment;
- c) Electro-Static Interference. Protection against static discharges requires that the gaming device's conductive cabinets be earthed in such a way that static discharge energy shall not permanently damage, or permanently inhibit the normal operation of the electronics or other components within the gaming device. Gaming devices may exhibit temporary disruption when subjected to a significant electro-static discharge greater than human body discharge, but they shall exhibit a capacity to recover and complete any interrupted play without loss or corruption of any control or critical data information associated with the gaming device. The tests shall be conducted with a severity level of a maximum of 27KV air discharge;
- d) Radio Frequency Interference (RFI). Gaming devices shall not divert from normal operation by the application of RFI at a frequency range from 27 to 1000 MHZ with a field strength of three volts per meter;
- e) Magnetic Interference. Gaming devices shall not be adversely affected by magnetic interference. The Tribal Gaming Office shall obtain from the manufacturer, and supply to the State Gaming Agency, any documentation if the device has had magnetic interference testing against any recognized standard; and

- f) Liquid Spills. Liquid spills applied to the outside of a gaming device shall not affect the normal operation of the gaming device, the integrity of the material or information stored inside the cabinet, or the safety of the patrons operating the equipment. If liquids are spilled into a coin acceptor or bill acceptor, the only degradation permitted is for the acceptor to reject all inputs or generate an error condition.

Hardware Requirements-Other

2.1.4 General Statement.

Each gaming device shall meet the following hardware requirements:

- a) be controlled by one or more microprocessors or the equivalent in such a manner that the game outcome is completely controlled by the microprocessor or a mechanical device;
- b) include a labeled on/off switch that controls the input power and is located in a secure place inside the gaming device; and
- c) in the event that any gaming device is incapable of continued proper operation, it shall perform an orderly shutdown without loss of game status, accounting, and security event data.

2.1.5 Cabinet Wiring.

Each gaming device shall be designed so that power, security, and data cables are not accessible to the general public.

2.1.6 Gaming Device Identification.

The manufacturer shall permanently affix to each gaming device a readily viewable identification plate to the exterior of the main cabinet that is not removable without leaving evidence of tampering. This plate shall include the following information:

- a) the manufacturer;
- b) a unique serial number;
- c) the gaming device model number; and
- d) the date of manufacture.

2.1.7 Tower Light or Audible Alarm.

Each gaming device shall have a light located conspicuously on top of the gaming device that automatically illuminates when a patron has won an amount or when a patron is redeeming credits that the gaming device cannot automatically pay, an error condition has occurred (including 'Door Open'), or a 'Call Attendant' condition has been initiated by the player. Bar-

top gaming devices may, instead, use an audible alarm or may share a light among gaming devices of like style.

2.1.8 Diverter and Drop Box Requirements.

The software in all gaming devices that accepts coins or tokens shall ensure that the diverter directs coins to the hopper or to the drop box when the hopper is full. The hopper full detector shall be continuously monitored to determine whether a change in diverter status is required. If the status of the detector changes, the diverter shall operate as soon as possible or within 10 games after the status change, without causing a disruption of coin flow or creating a coin jam. Gaming devices without a hopper shall always divert coins to the drop box.

2.1.9 Drop Bucket or Box.

Each gaming device equipped to accept coins or tokens shall meet the following requirements:

- a) Contain a separate drop bucket or box to collect and retain all items of value;
- b) A drop bucket or box shall be housed in a locked compartment separated and keyed differently from any other compartment of the gaming device; and
- c) Drop doors shall have door access sensors which detect and report all door openings to the MCS.

External Doors/Compartments Requirements

2.1.10 General Requirements.

- a) The interior of a gaming device shall not be accessible when all doors are closed and locked;
- b) Doors, including seals, hinges and locks, shall withstand determined and unauthorized efforts to gain access to the inside of a gaming device and shall leave evidence of tampering if such entry is attempted;
- c) The seal between the cabinet and the door of a locked area shall prevent the entry of objects;
- d) Gaming devices shall have a clearly visible light that automatically illuminates when a door to the gaming device, or a door to any devices connected to the gaming device, are opened and may affect the operation of the gaming device. All bar-top gaming devices shall have a light alarm (a shared light among gaming devices of like style is permitted) or an audio door alarm installed. The alarm shall activate when the inside of a gaming device is accessed, with power on;
- e) All external doors to a gaming device shall be locked and keyed differently from other gaming device compartments and monitored by door access sensors. When one of these doors is opened (with the exception of a Drop box door), game play shall cease, all acceptance shall be disabled, the tower light, at a minimum, shall illuminate, and an error condition shall be entered and sent to the MCS;

- f) It shall not be possible to insert an object into a gaming device that will disable a door open sensor when a gaming device's door is shut, without leaving evidence of tampering;
- g) The sensor system shall register an exterior door as being open when the door is moved from its fully closed and locked position, provided power is supplied to the gaming device; and
- h) All areas of a gaming device that hold cash, currency or other means of value shall be monitored by sensors that report to the MCS.

The Logic Door and Logic Area

2.1.11 General Statement.

- a) Each gaming device shall communicate to the MCS the number of times the microprocessor compartment (e.g., logic area or any other area which houses electronic components that have the potential to significantly influence the operation of the gaming device) has been opened if switches have been installed for this purpose.
- b) Each logic area shall be locked and keyed differently than any other gaming device compartment.
- c) The keys to the logic door and logic area shall be controlled and maintained by the Tribal Gaming Office. With respect to multi-site progressive gaming devices, the door to the logic area shall have two locks which are keyed differently, and the Tribal Gaming Office shall control and maintain the keys to at least one of the locks.

2.1.12 Electronic Gaming Device Components.

The following electronic gaming device components shall be housed in one or more logic areas:

- a) CPU's and any Program Storage Device that contains software that may affect the integrity of gaming, including but not limited to the game, accounting, system communication, and peripheral firmware involved in or which significantly influence the operation and calculation of game play, game display, game result determination, or gaming accounting, revenue, or security;
- b) all interface element and related storage components except the communication board for the MCS may reside outside a gaming device in a locked secured area;
- c) any other device, either hardware or software, that determines or transmits game outcome; and
- d) the NV memory back-up device.

Coin and Currency Compartments

2.1.13 General Statement.

The coin compartment of each gaming device equipped to accept coins or tokens shall be a locked compartment separated and keyed differently from any other compartment of the gaming device, except that a separate compartment shall not be required for coins maintained in a drop hopper. The currency compartment of each gaming device that accepts currency, tickets, or coupons shall be locked and keyed differently from the main cabinet area.

2.1.14 Access to Currency.

Access to the currency storage area shall be secured and fitted with separate sensors that indicate that a door has opened or closed and that a bill acceptor box has been removed, provided power is supplied to the gaming device. Access to the currency storage area shall be through two levels of locks: one on the relevant outer door plus one other door or lock, before the bill acceptor box can be removed. The bill acceptor box contents key shall be keyed differently from the bill acceptor box release key.

Program Memory, Non-Volatile Memory and Non-Volatile Devices Used to Store Program Memory

2.1.15 Non-Volatile (NV) Memory Requirements.

The following are the requirements for NV Memory:

- a) The gaming device shall have the ability to retain data for all critical memory and shall be capable of maintaining the accuracy of all information required for thirty (30) days after power is discontinued from the gaming device. The back-up device shall be kept within the logic area;
- b) For rechargeable battery types only, if the battery backup is used as an “off chip” battery source, it shall re-charge itself to its full potential in a maximum of 24 hours. The shelf life shall be at least five (5) years;
- c) NV Memory that uses an off-chip back-up power source to retain its contents when the main power is switched off shall have a detection system which provides a method for software to interpret and act upon a low battery condition before the battery reaches a level where it is no longer capable of maintaining the memory in question; and
- d) Clearing non-volatile memory shall only be possible by accessing the logic area in which it is housed, or other authorized and secure method controlled by the Tribal Gaming Office

2.1.16 Function of NV Memory Reset.

Following the initiation of a NV memory reset procedure (utilizing an approved NV memory clear method), the game program shall execute a routine which initializes all bits in critical NV memory to the default state. All memory locations intended to be cleared per the NV memory

clear process shall be fully reset in all cases. For games that allow for partial NV memory clears, the methodology in doing so must be accurate.

2.1.17 Default Reel Position or Game Display.

The base game default reel position or default game display immediately after an NV memory reset or upon entering game play mode shall not be the advertised top award on any selectable line. This shall apply to the base game only and not to any secondary bonus features. This shall not apply to games or paytables selected after the initial game play.

2.1.18 Configuration Setting.

A change to the denomination shall be done by a secure means, which includes accessing the logic area or other secure method provided that the method is approved and controlled by the Tribal Gaming Office. It shall not be possible to change a configuration setting that causes an obstruction to the electronic accounting meters without a NV memory clear.

2.1.19 Program Identification.

All program storage devices which do not have the ability to be modified while installed in the gaming device during normal operation shall be clearly marked with sufficient information to identify the software and revision level of the information stored on the devices.

2.1.20 Downloading Software.

It is permissible to download software to gaming devices and kiosks so long as done in compliance with Section 6.2.3 of this Appendix A. This Appendix A does not authorize server-based or server-supported gaming devices, although they may be authorized in an amendment to this Appendix or a separate Appendix.

Contents of Critical Memory

2.1.21 General Statement.

Critical memory is the media that stores all critical files including but not limited to:

- a) all required electronic meters
- b) current credits;
- c) gaming device/game configuration data;
- d) information pertaining to the last ten (10) games with the game outcome (including the current game, if incomplete). Gaming devices offering games with a variable number of free games, per base game, may satisfy this requirement by providing the capability to display the last 50 free games in addition to each base game;

- e) software state (the last normal state, last status or tilt status the gaming device software was in before interruption);
- f) any payable configuration information residing in memory; and
- g) at a minimum, a log of the last 100 significant events.

Maintenance of Critical Memory

2.1.22 General Statement.

Critical memory storage shall be maintained by a methodology that enables errors to be identified and corrected. This methodology may include, but not limited to, signatures, checksums, partial checksums, multiple copies, timestamps and/or effective use of validity codes. Alternate storage media types, such as hard disk drives, are not precluded. However, alternate storage media must maintain critical data integrity in a manner consistent with the requirements of this section, as applicable to the specific storage technology implemented.

2.1.23 Comprehensive Checks.

Comprehensive checks of critical memory, including checks of all critical files listed in Section 2.1.21, shall be made following game initiation, but prior to display of game outcome to the patron. Control programs shall test for possible game data and game function corruption caused by failure of the critical memory. Test methodology shall detect failures with an extremely high level of accuracy.

2.1.24 Control Program.

The control program shall ensure the integrity of game play and outcome.

2.1.25 Software.

All software relating to game play shall be validated/authenticated and checked for corruption during the following conditions:

- a) any processor reset (e.g., power up and soft reset); and
- b) the first time the files are loaded for use (even if only partially loaded).

Unrecoverable Critical Memory

2.1.26 General Statement.

An unrecoverable corruption of critical memory shall result in an error. The memory error shall not be cleared automatically, but the corruption shall cause a tilt condition and cause the gaming device to cease further function. The gaming device shall identify and display the error, and shall display the patron's credits to avoid patron disputes. The critical memory error shall also

cause any communication external to the gaming device to immediately cease, although the gaming device may attempt to report the error condition using an external protocol prior to ceasing communication. An unrecoverable critical memory error shall require a full NV memory clear performed by a person authorized by the Tribal Gaming Office. Non-volatile memory space that is not critical to gaming device security (e.g., video or sound) is not required to be validated.

Program Storage Device Requirements

2.1.27 General Statement.

Program Storage Devices is media or an electronic device that contains critical control program components. All Program Storage Devices, including, but not limited to EPROMs, ROMs, Flash-ROMs, DVDs, CD-ROMS, compact flash, hard drives, USB drives and any other type of Program Storage Devices shall:

- a) Be clearly marked with sufficient information to identify the software and revision level of the information stored in the devices and shall only be accessible with access to the locked logic compartment. In the case of media types on which multiple programs may reside it is acceptable to display this information via the attendant menu;
- b) Be validated during each processor reset;
- c) Be validated the first time they are used;
- d) Be housed within a fully enclosed and locked logic compartment; and
- e) CD-ROM, DVD, and other optical disk-based Program Storage shall:
 1. Not be a re-writable disk; and
 2. The 'Session' shall be closed to prevent any further writing.

The programs residing in the gaming device shall be contained in a storage medium which cannot be altered using unauthorized means. Alterations shall only be performed via a secure means, by an authorized person.

2.1.28 Control Program Verification

- a) EPROM-based Program Storage: Gaming devices which have control programs residing in one or more EPROM's shall employ a mechanism to verify control programs and data. The mechanism shall use, at a minimum, a checksum; however, it is recommended that a Cyclic Redundancy Check (CRC) be used (at least 16-bit).
- b) Non-EPROM Program Storage:
 - 1) The software shall provide a mechanism for the detection of unauthorized and corrupt software elements, upon any access, and subsequently prevent the execution or usage of those elements by the gaming device. The

- mechanism shall employ a hashing algorithm which produces a message digest output of at least 128 bits.
- 2) In the event of a failed authentication, after the game has been powered up, the gaming device shall immediately enter an error condition and display an appropriate error. This error shall require operator intervention to clear and shall not clear until, the data authenticates properly, following the operator intervention, or the media is replaced or corrected, or the gaming device's memory is cleared.
- c) Alterable Media shall meet the following requirements in addition to those outlined in b) above:
 - 1) Employ a mechanism which tests unused or unallocated areas of the alterable media for unintended programs or data and tests the structure of the media for integrity. The mechanism shall prevent further play of the gaming device if unexpected data or structural inconsistencies are found.
 - 2) Employ a mechanism for keeping a record any time a control program component is added, removed, or altered on any alterable media. The record shall contain a minimum of the last ten (10) modifications to the media and each record must contain the date and time of the action, identification of the component affected, the reason for the modification and any pertinent validation information.
 - d) Alterable Program Storage does not include memory devices typically considered to be alterable which have been rendered "read-only" by either a hardware or software means.
 - e) All Control Program verification mechanisms shall be tested and approved by the independent testing laboratory.

2.1.29 Independent Control Program Verification.

A gaming device shall have the ability to allow for an independent integrity check of the device's software from an outside source and is required for all control programs that may affect the integrity of the game. This shall be accomplished by being authenticated by a third-party device, which may be embedded within the game software, but having an interface port for a third-party device to authenticate the media, or by allowing for removal of the media such that it can be verified externally. This integrity check provides a means for field verification of the software to identify and validate the program. The independent test laboratory shall test and approve the integrity check method. If the authentication program is contained with the game software, the independent test laboratory shall test and approve the program.

2.1.30 through 2.1.31 Reserved.

Printed Circuit Board (PCB)

2.1.32 PCB Identification Requirements.

Requirements for PCB identification:

- a) each printed circuit board (PCB) shall be identifiable by a name or number and revision level. Where feasible, this identification shall be readily viewed without removal of the PCB from the gaming device;
- b) the top assembly revision level of the PCB shall be identifiable;
- c) if track cuts and/or patch wires are added to the PCB, then a new revision number or level shall be assigned to the assembly;
- d) circuit board assemblies shall conform functionally to the documentation and the certified versions of those PCBs that were evaluated and certified by the laboratory; and
- e) where feasible, the manufacturer's name, logo, or abbreviated symbol shall be displayed on the PCB.

Switches, Jumpers, Patch Wires and Track Cuts

2.1.33 General Statement.

If the gaming device contains switches and/or jumpers:

- a) Hardware switches and/or jumpers which may alter configuration settings, paytables, game denomination, or payout percentages shall meet the applicable sections of this Appendix. This includes top award changes (including progressives), selectable settings, or any other option that would affect the payout percentage.
- b) All hardware switches or jumpers shall be fully documented and tested by the independent testing laboratory; and
- c) All switches and jumpers shall be housed within a logic area of the gaming device

Patch wires and track cuts shall be documented, in an appropriate manner, in the relevant service manual and/or service bulletin and may be used but only after independent testing laboratory certification.

Mechanical Components Used for Displaying of Game Outcomes

2.1.34 General Statement.

Each gaming device that has mechanical or electro-mechanical components which are used for displaying game outcomes shall comply with the following:

- a) Electro-mechanically controlled display devices (e.g. reels or wheels) shall have sufficiently closed loop of control that enables the software to detect and report a malfunction or an attempt to interfere with the correct operation of the gaming

- device. This requirement is designed to ensure that if a reel or wheel is not in the position it is supposed to be in, an error condition will be generated.
- b) Mechanical assemblies (e.g. reels or wheels) shall have some mechanism that ensures the correct mounting of the assembly's artwork, if applicable;
 - c) Displays of winning symbol combinations shall match up with pay lines or other indicators; and
 - d) A mechanical assembly shall not be obstructed by any other components.

Video Monitors/Touch Screens

2.1.35 General Statement.

Each video gaming device shall meet the following conditions:

- a) touch screens shall be accurate and, once calibrated, shall maintain that accuracy for at least the manufacturer's recommended maintenance period;
- b) a touch screen shall be able to be re-calibrated without access to the gaming device cabinet other than opening the main door; and
- c) there shall be no undocumented buttons or touch points anywhere on the screen that affect game play and/or that impact the outcome of the game, except as provided for by the game rules.

Coin/Token Acceptors and Bill Acceptors

2.1.36 Coin/Token Acceptors.

If a gaming device uses a coin/token acceptor, the acceptor shall accept or reject a coin or token on the basis of metal composition, mass, composite makeup, or equivalent security. In addition, the following conditions shall be met:

- a) Coin/Token Acceptor Security Features/Error Conditions. The coin/token acceptor shall prevent the use of counterfeit coins, the insertion of foreign objects and any other manipulation that is a cheating technique. When stringing, a counterfeit coin, insertion of a foreign object or other manipulation is detected, the gaming device software shall enter and display the appropriate, correlating error condition and shall disable the coin/token acceptor;
- b) Rapidly Fed Coins. The coin/token acceptor shall be capable of handling rapidly-fed coins or piggy backed coins so that occurrences of cheating are eliminated. Coins traveling too fast that do not register on the patron's credit meter shall be rejected to the coin tray;
- c) Direction Detectors. The coin/token acceptor shall have suitable detectors for determining the direction and the speed of coin/token travel in the receiver. If a coin/token traveling at too slow of a speed or improper direction is detected, the

- gaming device shall enter an error condition and display an error condition for at least thirty (30) seconds or require clearance by an attendant before play resumes;
- d) Invalid Coins/Tokens. Coins/tokens deemed invalid by the acceptor shall be rejected to the coin tray and shall not be counted as credits;
 - e) Coin/Token Acceptance Conditions. Acceptance of any coins or tokens for crediting to the credit meter shall only be possible when the gaming device is enabled for play. The gaming device shall disable the coin/token acceptor when in other states, such as error conditions, including door opens, audit mode and game play;
 - f) Credit Meter Update on Coin Insertion. Each valid coin/token accepted shall register the actual monetary value or the appropriate number of credits received for the denomination being used on the patron's credit meter for the current game or bet meter. If registered directly as credits, the conversion rate shall be clearly stated; and
 - g) Coin/Token Acceptor Error Conditions. The coin/token acceptor shall detect the following conditions:
 - 1) Coin-in jam;
 - 2) Coin-out jam;
 - 3) Reverse Coin-in (coin traveling wrong way through the acceptor); and
 - 4) Coin too slow.

Upon detecting one of the above conditions, the coin/token acceptor shall communicate the condition to the gaming device software which shall enter and display the appropriate, correlating error condition and disable the coin/token acceptor.

2.1.37 Bill Acceptors.

If a gaming device uses a bill acceptor, the acceptor shall detect currency, tickets, and/or coupons and provide a method to enable the gaming device software to interpret and act appropriately upon valid and invalid inputs. The bill acceptor shall be electronically based and be configured to ensure that it only accepts valid currency, tickets, and/or coupons, and must reject all other items. Rejected currency, tickets, or coupons should be returned to the player. The bill acceptor's input system shall be constructed in a manner that protects against vandalism, abuse or fraudulent activity. In addition, the bill acceptor shall:

- a) Register the actual monetary value or the appropriate number of credits received for the denomination being used on the patron's credit meter for each valid bill, ticket, and/or coupon received.
- b) Only register credits when:
 - 1) the currency, ticket, or coupon has passed the point where it is accepted and stacked; and
 - 2) the acceptor has sent an "irrevocably stacked" message to the gaming device software.

- c) Prevent stringing, the use of counterfeit bills, the insertion of foreign objects, and any other manipulation that is a cheating technique. When stringing, a counterfeit bill, the insertion of a foreign object or other manipulation is detected, the gaming device software shall enter and display the appropriate, correlating error condition and shall disable the bill acceptor;
- d) Only accept currency, tickets, and/or coupons for crediting to the credit meter when the gaming device is enabled for play. The gaming device shall disable the bill acceptor when in other states, such as error conditions, including door opens, audit mode and game play; and
- e) Detect the following conditions:
 - 1) Bill acceptor full;
 - 2) Bill jam;
 - 3) Bill acceptor door open;
 - 4) Bill acceptor box door open;
 - 5) Bill acceptor box removed; and
 - 6) All bill acceptor malfunctions not specified above.

Upon detecting one of the above conditions, the bill acceptor shall communicate the condition to the gaming device software which shall enter and display the appropriate, correlating error condition and disable the coin/token acceptor. When the bill acceptor is full, it shall disable itself and the gaming device software need not enter and display an error condition. When the bill acceptor's door is the belly glass door, a door open signal is sufficient.

2.1.38 Communications.

All bill acceptors shall:

- a) communicate to the gaming device using a bi-directional protocol; or
- b) communicate to the MCS' Slot Machine Interface Board (SMIB) using a bi-directional protocol.

Gaming Device Metering of Bill Acceptor Events

2.1.39 General Statement.

Each gaming device containing a bill acceptor 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 currency, coupons and tickets accepted:
 - 1) for currency the game shall report the number of bills accepted for each bill denomination;

- 2) for coupons and tickets the game shall have separate meters that report the number of coupons and tickets accepted.

2.1.40 Bill Acceptor Recall.

Each gaming device that uses a bill acceptor shall retain in the gaming device's memory and be capable of displaying the denomination of the last five (5) items accepted by the bill acceptor (i.e., currency, tickets, and/or coupons). The bill acceptor 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.

2.1.41 Acceptable Bill Acceptor Locations.

If a gaming device is equipped with a bill acceptor, the acceptor shall be located in a locked area of the gaming device. Access to the acceptor shall require, at a minimum, that the gaming device's main door be opened. The acceptor shall not be located in the gaming device's logic area. Only the insertion area of a bill acceptor shall be accessible by patrons.

2.1.42 Power Failure During Bill Acceptance.

If a power failure occurs during acceptance, the bill acceptor shall give proper credits for the items inserted or return the items to the patron, except for the very small duration after the item has been accepted and that message is in route to the gaming device logic when a power failure occurs.

2.1.43 Self Test.

The bill acceptor shall perform a self-test at each power up. In the event of a self-test failure, the bill acceptor shall automatically disable itself until the error state has been cleared.

Bill Acceptor Requirements

2.1.44 Bill Acceptor Requirements.

Interconnecting cables from a bill acceptor to the gaming device or SMIB shall not be exposed externally. No bill acceptor shall be adversely affected by the following:

- a) electro-static discharge;
- b) power surges;
- c) radio frequency interference;
- d) electro-magnetic interference; or
- e) environmental extremes.

Bill Acceptor Box Requirements

2.1.45 General Statement.

Each bill acceptor shall have a bill acceptor box and all accepted items shall be deposited into the bill acceptor box. The bill acceptor box shall be attached to the gaming device in such a manner so that it cannot be removed by physical force and shall comply with the following:

- a) the bill acceptor shall have the ability to detect a “bill acceptor full” condition;
- b) the bill acceptor box door shall be keyed differently from the main door. A separate key also shall be required to remove the items from the bill acceptor box; and
- c) a tower light or alarm shall be activated whenever there is access to the bill acceptor door or the bill acceptor box has been removed.

Credit Redemption

2.1.46 Credit Redemption.

Available credits may be collected from a gaming device by the patron pressing a collect button at any time other than during:

- a) 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) an error condition, provided the error condition prevents a valid cashout which is not supported through some other means.

2.1.47 Cashout Limit Exceeded.

If credits are collected, and the total credit value is greater than or equal to the hopper limit for hopper games or printer limit for printer games, the gaming device shall lock up until the credits have been paid, and the handpay condition is cleared by an attendant.

Coin Hoppers

2.1.48 Hoppers & Hopper Error Conditions.

Coin hoppers shall be monitored by the gaming device software. Coin hoppers must detect hopper coin jam, hopper empty and extra coin paid conditions. Coin hoppers shall prohibit manipulation by the insertion of a light source or any foreign object, and there shall not be an abnormal payout when the hopper is exposed to electro-static discharge or if power is lost at any

time during a payout. The hopper shall interface in a manner that allows the gaming device's control program software to monitor the hopper mechanism at all times and identify at least the following events:

- a) hopper runaway or extra coin paid;
- b) hopper jam; and
- c) hopper empty or timed out.

2.1.49 Acceptable Hopper Locations.

If a gaming device is equipped with a hopper, the hopper shall be located in a locked area of the gaming device. Access to the hopper shall require, at a minimum, opening of a secure external door. The hopper shall not be located in the gaming device's logic area or drop box.

Printers

2.1.50 Payment By Ticket Printers.

Each gaming device that has a printer used to make payments may pay the patron by issuing a printed ticket.

2.1.51 Tickets.

Each gaming device shall either keep a duplicate copy or print only one copy to the patron and have the ability to retain the information of the last twenty-five (25) tickets printed. A system shall be used to validate the ticket, and the MCS shall retain ticket information at least as long as the ticket is valid at that gaming facility. If offline ticket issuance is supported, the gaming device must mask all but the last four (4) digits of the validation number as displayed in the twenty-five (25) ticket out log.

2.1.52 Printer Location.

For each gaming device equipped with a printer, the printer shall be located in a locked area of the gaming device (i.e., require opening of a locked external door), but not in the logic area or the drop box.

2.1.53 Printer Error Conditions.

A printer shall have mechanisms to allow software to interpret and generate the following error messages:

- a) out of paper;
- b) paper low;
- c) printer jam;
- d) printer failure; and

- e) printer disconnected – it is permissible for the gaming device to detect this error condition only when the gaming device tries to print.

2.1.54 through 2.1.56 Reserved.

Audible Alarms

2.1.57 Audible Alarm Requirements.

Each gaming device that has an audible alarm shall:

- a) signal door open events; and
- b) be adjustable only via an audit mode or diagnostic mode.

Pay Tables

2.1.58 Pay Tables and Reel Strip Test

For gaming devices with mechanical reels it shall be possible to test and verify gaming device pay tables and reel strips at the gaming facility during the initial gaming device certification and during any periodic inspection by the Tribal Gaming Office or State Gaming Agency. Such field testing shall not be required for video based gaming device. Testing and verification of gaming device pay tables for video based gaming devices shall be conducted by the independent testing laboratory as part of the certification process.

CHAPTER 2 VALIDATION SYSTEMS

Ticket Information

2.2.1 General Statement.

Tickets shall contain at least the following printed information:

- a) the gaming facility(ies) or site(s) at which the ticket is valid;
- b) gaming device number (or Cashier, Change Booth, or other location number) where the ticket is printed);
- c) date and time in current 24 hour format;
- d) both alpha and numeric dollar amount;
- e) ticket sequence number;
- f) ticket validation number;
- g) bar code or any machine readable code representing the ticket validation number;
- h) type of transaction or other method for differentiating ticket types;
- i) indication of an expiration period which shall be no less than 60 days from date of issue;

- j) the ticket validation number printed a second time on the leading edge of the ticket; and
- k) if offline ticket issuance is supported, an offline authentication identifier shall, at a minimum, be printed on the immediate next line following the leading edge validation number that in no way overwrites, or otherwise compromises, the printing of the validation number on the ticket. The offline authentication identifier shall be derived by a hash, or other secure encryption method of at least 128 bits, that will uniquely identify the ticket, verify that the redeeming system was also the issuing system, and validate the amount of the ticket. If a suitable authentication identifier cannot be printed on the ticket, the gaming device shall print at most one wagering instrument after the gaming device to system communications has been lost.

The information required to be printed on coupons is set forth in Section 2.6.37.

2.2.2 Ticket Types.

If a gaming device loses communication with the validation system then:

- a) the gaming device shall not issue more than two tickets while not in direct communication with the validation system. When a patron cashes out of a gaming device that has lost communication with the validation system and which has already printed two tickets since losing communication, the gaming device shall lockup and require that the patron be paid using the existing and approved handpay process, upon completion of which the gaming device is reset; or
- b) if gaming device ticket generation is supported while not connected to the validation system, a ticket system shall generate, regardless of how the tickets may be demarcated, at least two different types of tickets, on-line and off-line. Each type shall be denoted respectively by ticket generation either when the validation system and gaming device are properly communicating or when the validation system and gaming device are not communicating properly. When a patron cashes out of a gaming device that has lost communication with the validation system, the gaming device shall lockup and, after reset, print an off-line ticket. The off-line ticket shall be visually distinct from an on-line ticket either in format, content or both while still maintaining all information required of section 2.2.1 and shall not be accepted by any gaming device or validation terminal.

Ticket Issue and Redemption

2.2.3 Ticket Issuance.

A gaming device may generate a ticket through an internal document printer only when a patron chooses to redeem all credits or when the patron has a partial credit. A gaming device may automatically issue tickets that reflect partial credits. Additionally, cashier/change booths and

kiosks may issue tickets if supported by the validation system. All issued tickets shall be tracked and verified by a validation system. If supported, a gaming device may issue offline tickets after a loss of communication has been identified, if the following minimum set of requirements is met:

- a) Rules of Issuance. The gaming device shall not issue more offline tickets than it has the ability to retain and display in the gaming device maintained ticket out log.
- b) Request for Re-Seeding. The gaming device shall not request validation numbers and seed, key, etc. values used in the issuance of tickets until all outstanding offline ticket information has been fully communicated to the validation system.
- c) Rules for Re-Seeding. The gaming device shall request a new set of validation numbers and seed, key, etc. values in the issuance of online/offline tickets if the current list of validation numbers and seed, key, etc. values have the possibility of being compromised which include but are not limited to the following cases:
 - 1) After power has been recycled, and/or
 - 2) Upon exit of a main door open condition.
- d) The values for the seed, key, etc. shall not be viewable through any display supported by the gaming device. Validation numbers shall always be masked when viewable through any display supported by the gaming device such that only the last four (4) digits of the validation number are visible.

2.2.4 On-line Ticket Redemption.

When a patron seeks to obtain credits on a gaming device by inserting a ticket, no credits may be issued to the gaming device until ticket validation has occurred. A patron may also redeem a ticket at a cashier/change booth, kiosk or other approved validation terminal. All ticket validation terminals shall be user and password controlled.

2.2.5 Offline Ticket Redemption.

The offline ticket redemption may be validated at the specific gaming device that issued the ticket if an approved internal control process is in place. A manual handpay may be conducted for the offline ticket value consistent with the approved internal control process.

2.2.6 Validation Receipt Information.

If applicable, a ticket validation receipt shall contain at least the following printed information:

- a) gaming device number;
- b) validation number;
- c) date and time paid;
- d) amount validated to be paid; and

- e) cashier/change booth or kiosk identifier.

2.2.7 Invalid Ticket Notification.

The validation system or MCS shall have the ability to identify and notify the cashier of the following occurrences:

- a) a ticket validation number or ticket sequence number cannot be found on file;
- b) a ticket has already been paid;
- c) the amount of a ticket differs from the amount on file; or
- d) any other error condition causing the ticket to be invalid.

Reports

2.2.8 Reporting Requirements.

At a minimum, the validation system and/or MCS shall generate the following detailed reports, or their equivalent, at the end of each gaming day:

- a) tickets issued report;
- b) tickets redeemed report;
- c) tickets outstanding (liability) report;
- d) tickets dropped report;
- e) jackpot tickets issued report;
- f) transaction detail report showing all tickets generated by a gaming device and all tickets redeemed by a ticket validation terminal or a gaming device;
- g) cashier report detailing the sum of tickets paid by a cashier or validation unit;
- h) tickets expired report;
- i) tickets voided report;
- j) ticket exception report; and
- k) ticket drop variance report.

The validation system shall use the same 24-hour cutoff as the MCS when generating reports. The Gaming Facility Operator shall reconcile these reports within five (5) business days after each gaming day.

Security

2.2.9 Database and Validation Component Security.

Once validation information is stored in the validation system database, the data shall not be altered in any way. The validation system database shall be encrypted or password-protected to prevent unauthorized access and shall provide a non-alterable user audit trail. The normal operation of any device that holds ticket or coupon information shall not have any options or methods that can compromise ticket or coupon information. Any device that holds ticket or

coupon information in its memory shall not allow removal of the information unless it has first transferred that information to the validation system database or to another secured component of the validation system. Each validation system user shall have a unique password and all passwords shall be changed at least quarterly with the changes documented.

2.2.10 Voiding Procedures.

The Gaming Facility Operator shall have and follow procedures to track and void tickets that are not generated by customer play (i.e., test tickets).

CHAPTER 3 SOFTWARE

Rules of Play

2.3.1 Display.

- a) Payglass or Video Display. Paytables displayed on payglasses (including video displays) shall be clearly identified and shall accurately state the rules of the game and the award that will be paid to the patron if the patron obtains a specific win. The payglasses or video displays shall clearly indicate whether awards are designated in denominational units, currency, or some other unit. The gaming device shall reflect any change in award value that may occur in the course of play. This may be accomplished with a digital display in a conspicuous location of the gaming device. All payable information, rules of play, and help screen information shall be accessible by a patron prior to committing to a bet. This includes unique game features, extended play, free spins, double-up, take-a-risk, auto play, countdown timers, symbol transformations, and community style bonus awards. Payglass or video displays shall not be certified if the information is inaccurate. The rules of the game shall not be written in a manner that confuses a reasonable patron. The payglass artwork shall display sufficient information to the patron to indicate all available options and instructions. The game shall always follow the predefined set of rules. Each gaming device that offers a jackpot paid over time shall display notice of the following to all patrons:
 - 1) that the displayed jackpot will be paid over time and not in one lump sum; and
 - 2) the period of time over which the payments will be made.
- b) Upcoming wins. The game shall not advertise “upcoming wins,” for example three times pay coming soon, unless the following requirements can be met:
 - 1) it is mathematically demonstrable that an award occurrence is upcoming; and
 - 2) if the player is shown a graphical representation in the form of a progress indicator, it must accurately depict the current progress towards such an award.

- c) Extended Feature Information. Each game which offers an extended feature (i.e., Free Games, Re-Spins, Bonus Paytable during the next “x” games, etc.) shall display the number of feature games that are remaining, during each game.
- d) Multiple Decks of Cards. Any games which utilize multiple decks of cards shall clearly indicate to the patron the number of card decks in play.

2.3.2 Information to be Displayed.

Each gaming device shall display, or have displayed on the glass, the following information to the patron at all times the gaming device is available for patron input:

- a) the patron’s current credit balance;
- b) all possible winning outcomes, whether displayed directly or as a menu or help screen item;
- c) win amounts for each possible winning outcome, whether displayed directly or as a menu or help screen item;
- d) the denomination being played clearly displayed; and
- e) a statement that malfunctions void all pays or some equivalent verbiage clearly displayed and permanently affixed to the exterior of the gaming device and not removable.

The following information shall be required as indicated:

- a) the current bet amount. This is only during the base game or if the patron can add to the bet during the game;
- b) the amount won for the last completed game (until the next game starts or betting options are modified); and
- c) the patron options selected (e.g. bet amount, lines played) for the last completed game (until the next game starts or a new selection is made).

2.3.3 Multi-Line Games.

- a) Each gaming device with multi-line games shall clearly indicate the individual line(s) to be played so that a reasonable patron can determine which line is (or lines are) being bet on (displaying the number of lines bet shall be sufficient to meet this requirement);
- b) The credits bet per line shall be shown (it is acceptable if the bet per line can be calculated from the number of lines bet and the total bet); and
- c) The winning payline(s) shall be clearly identifiable by a reasonable patron (e.g., on a video game it may be accomplished by drawing a line over the symbols on the payline(s) and/or the flashing of winning symbols and line selection box). Where there are wins on multiple lines, each winning playline shall be clearly indicated, this may be indicated in turn. (This would not apply to electro-mechanical reel games unless technology is used which implements paylines

similar to those used on video displays, e.g. backlit reels flashing for each winning payline).

2.3.4 Game Cycle.

The placing of an initial wager shall initiate the game cycle. The entering of money or an item of monetary value into a gaming device shall not by itself initiate game play. Wagers from the patron's credit meter during a game cycle shall not exceed the maximum wager allowed by the Compact. A game shall be considered completed when the final transfer to the patron's credit meter takes place (in case of a win) or when all credits wagered or won that have not been transferred to the credit meter are lost. The following are all considered to be part of a single game cycle:

- 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 or the second part of a two-part Keno game); and
- e) Double-up or Gamble features.

2.3.5 Game Selection Process.

- a) All Combinations and Outcomes Shall Be Available. Each possible variation, permutation and combination of game elements 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, a gaming device shall not make a variable secondary decision, which affects the result shown to the patron. For instance, the RNG chooses an outcome that the game will be a loser. The game shall not substitute a particular type of loser to show to the patron. This shall eliminate the possibility of simulating a "Near Miss" scenario where the odds of the top award symbol landing on the payline are limited but frequently appear above or below the payline.
- c) No Corruption from Other Equipment. Each gaming device shall use appropriate protocols that protect the RNG and random selection process from influence by associated equipment, which may be communicating with the gaming device.

Random Number Generator (RNG) Requirements

2.3.6 General Statement.

Selection of game symbols or production of game outcomes by an RNG shall:

- a) be statistically independent;
- b) conform to the desired random distribution;

- c) pass necessary statistical testing; and
- d) be unpredictable.

2.3.7 Applied Tests.

The laboratory shall conduct tests necessary to determine whether the random values produced by the RNG achieve a confidence level of at least 99%. These tests may include, but are not limited to:

- 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) runs tests (patterns of occurrences shall not be recurrent);
- l) interplay correlation test;
- m) serial correlation test potency and degree of serial correlation (outcomes shall be independent of the previous game);
- n) tests on subsequences; and
- o) Poisson distribution.

The period of the RNG shall be adequate in size for the applications for which it is designed.

2.3.8 Mechanical Based RNG Games.

Mechanical based RNG games shall meet the laboratory multiple iteration test to verify randomness.

2.3.9 Background RNG Activity Requirement.

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.

2.3.10 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 (new seed, random timer, delay, etc.). It is permissible not to use a random seed only if the manufacturer provides sufficient assurance that games will not synchronize.

2.3.11 Live Game Correlation/Symbol Probability.

Unless clearly indicated otherwise on the payglass, where a gaming device plays a game that is a recognizable simulation of a live casino game, the same probabilities associated with the live game shall be evident in the simulated game. For gaming devices that are not simulating a live game (such as spinning reel games or video spinning reel game), unless otherwise denoted on the payglass, the mathematical probability of a symbol appearing in a position in any game outcome shall be constant.

2.3.12 Card Games.

The conditions for games depicting cards being drawn from one or more decks shall be the following:

- a) at the start of each game or hand, the first hand of cards shall be drawn fairly from a randomly-shuffled deck or decks; replacement cards shall not be drawn until needed, and in accordance with game rules, to allow for multi-deck and depleting decks;
- b) cards once removed from the deck shall not be returned to the deck except as provided by the rules of the game depicted; and
- c) as cards are removed from the deck they shall be used immediately as directed by the rules of the game (i.e., the cards are not to be discarded due to adaptive behavior by a gaming device).

Random numbers for replacement cards may be drawn at the time of the first hand random number draw, provided replacement cards are sequentially used as needed.

2.3.13 Ball Drawing Games.

The conditions for games depicting balls drawn from a pool (e.g., Keno) shall be the following:

- a) at the start of each game, only balls applicable to playing the game shall be depicted. For games with bonus features and additional balls that are selected, the balls shall be chosen from the original selection without duplicating an already chosen ball;
- b) the balls shall not be re-mixed except as provided by the rules of the game depicted; and
- c) as balls are drawn, they shall be used immediately as directed by the rules of the game (i.e., the balls are not to be discarded due to adaptive behavior by a gaming device).

2.3.14 Scaling Algorithms.

If a random number with a range shorter than that provided by the RNG is required for some purpose within a gaming device, the method of re-scaling, (i.e., converting the number to the lower range) shall ensure that all numbers within the lower range are equally probable. If a particular random number selected is outside the range of equal distribution of re-scaling values, the gaming device may discard that random number and select the next random number in sequence for the purpose of re-scaling.

2.3.15 RNG Scaling and Mapping Algorithms.

- a) All game outcomes shall be determined using an RNG. It is permissible that the RNG make use of a scaling algorithm. This scaling algorithm shall in no way produce outcomes that are predictable.
- b) The conversion of raw random numbers to individual game outcomes (i.e., symbols, cards, keno spots, etc.) shall be fairly distributed.

2.3.16 Mechanical Based RNG Games.

Mechanical based RNG games are games that employ the laws of physics in any way to generate the outcome of the game. Mechanical based RNG games shall meet the requirements of the Compact and this Appendix with the exception of Sections 2.3.9 (relating to continuously cycling in the background), 2.3.10 (relating to seeding) and 2.3.14 (relating to scaling algorithms) which dictate the requirements for electronic RNGs. In addition to the requirement of section 2.3.8, mechanical based RNG games shall meet the following conditions:

- a) the mechanical pieces shall be constructed of materials to prevent decomposition of any component over time (e.g., a ball shall not disintegrate), the laboratory may require replacement parts after a pre-determined amount of time for a game to comply with this requirement;
- b) the properties of physical items used to determine the game outcome shall not be altered; and
- c) the patron shall not have the ability to physically interact or come into physical contact or manipulate the machine physically with the mechanical portion of the game.

Payout Percentages, Odds and Prizes

2.3.17 Software Requirements for Percentage Payout.

During the expected lifetime of the game, including bonus games, each game shall theoretically pay out a minimum of 80% for games requiring no skill and 83% for games of skill. During the expected lifetime of the game, including bonus games, the video game of keno shall theoretically pay out a minimum of 75%. The required return percentage does not include contributions from any award derived externally to the gaming device (i.e., progressive, promotional systems, bonus systems, merchandise, etc.). Each game shall also meet the following conditions:

- a) Optimum Play Used for Skill Games. Games that may be affected by patron skill shall meet the theoretical minimum when using a method of play that will provide the greatest return to the patron over a period of continuous play.
- b) Minimum Percentage Requirement Met at All Times. The minimum percentage requirement shall be met at the end of all payable periods. The minimum percentage requirement shall be met throughout the range of each non-linear payable, including its lowest end (e.g., if a game is continuously played at a minimum bet level for its total game cycle and the theoretical return to patron is lower than the minimum percentage, then the game does not meet this standard). This standard also extends to games such as keno, where the continuous playing of any spot combination results in a theoretical return to patron lower than the minimum percentage.
- c) Double-up or Gamble. The Double-up or Gamble options shall have a theoretical return to the patron of 100%.

2.3.18 Progressive Game Calculations.

Whenever a progressive jackpot is offered as part of a gaming device payout, the base amount shall be included in the theoretical payout percentage for purposes of determining whether the minimum percentage requirements are met. The laboratory shall provide the base amount in the certification letter as the lowest configuration. This rule shall not supersede the requirements of sections 2.3.21 through 2.3.23 (“Prizes in Lieu of Jackpots”).

2.3.19 Multiple Percentages.

If the game offers multiple theoretical hold percentages, the gaming device shall require a key chip or equivalent secure method that requires physical access to the logic area to change the percentage.

2.3.20 Odds.

The highest single advertised award on each gaming device shall occur statistically, at least once in every 50,000,000 games. This requirement does not apply to multiple awards on the same game play where the aggregate award is not advertised. This requirement shall not apply to games that make it possible for a patron to win the highest win multiple times through the use of free games. This requirement does apply to each wager that wins the maximum award. If the highest advertised award can occur within a bonus or free game feature, the odds calculation shall include the odds of reaching the bonus round and the odds of winning the top award.

Prizes in Lieu of Jackpots

2.3.21 Payout Percentage.

The return to the patron over the complete game cycle shall conform to the theoretical pay-out percentage. No prize shall be included in determining whether a gaming device meets the established minimum payout requirement unless the patron is given an option to claim a jackpot. In that case, the jackpot will be used to compute the payout percentage.

2.3.22 Prize Amount.

The value of a prize and how the Gaming Facility Operator determined the value shall be clearly displayed in close proximity to all gaming devices that offer prizes.

2.3.23 Linked Gaming Devices.

Gaming devices which are linked to offer the same prize shall have the same probability of hitting the combination that will award that prize (adjusted for denomination of play and number of coins bet).

Bonus Games

2.3.24 Bonus Games.

Each game that has awards calculated that occur from game play within the base game's cycle (e.g., bonus features, including free games), shall comply with the following:

- a) Display clearly to the patron which game rules apply to the current game. These rules shall be made available to the patron prior to the start of the bonus game versus during the bonus game;
- b) Display clearly to the patron all possible win amount ranges, multiplier ranges, etc. that can be obtained from the bonus game;
- c) A game which offers a bonus game, other than those that occur randomly shall display clearly to the patron sufficient information to indicate the current status towards the triggering of the next bonus game;
- d) If the game requires obtaining several events or symbols towards a feature, the number of events or symbols needed to trigger the bonus shall be indicated along with the number of events or symbols collected at any point;
- e) The game shall not adjust the likelihood of a bonus occurring based on the history of awards obtained in previous games (i.e., games shall not adapt their theoretical return to the patron based on past payouts);
- f) If a game's bonus is triggered after accruing a certain number of events or symbols or combination of events or symbols, the probability of obtaining like events or symbols shall not deteriorate as the game progresses (e.g., for identical events/symbols is it not permitted that the last few events/symbols needed are more difficult to obtain than the previous events/symbols of that kind);

- g) The game shall make it clear to the patron when the patron is in a bonus mode to avoid the possibility of the patron walking away from the gaming device not knowing the game was in a bonus mode; and
- h) At no time during a bonus round shall a patron be able to insert items of value or transfer credit from the credit meter in excess of the game cycle's maximum bet.

Bonus Game Awards

2.3.25 General Statement.

Bonus game awards shall be 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. Bonus play awards shall meet the following conditions:

- a) If the cycle for bonus play awards is different from the base game cycle, then the bonus play awards occurring within the base game's cycle shall be calculated as part of the game's payout; and
- b) The game shall display the rules of play for the bonus play awards, the rewards associated with each bonus play prize, and the character combinations that will result in specific payouts. For bonus play prizes achieved by obtaining specific game results, the progress of the prize shall be displayed.

2.3.26 Player Selection or Interaction in Bonus Games.

All gaming devices which offer a bonus game or extended feature which requires patron selection or interaction are prohibited from automatically making selections or initiating games or features unless the gaming device meets the following requirements and explains the mechanism for auto-initiation or selection on the gaming device glass or video display.

- a) The patron is presented with a choice and specifically acknowledges the intent to have the gaming device auto-initiate the bonus or extended play by means of a button press or other physical/machine interaction.
- b) If the bonus round or extended play provides only one choice to the patron (e.g., press button to spin wheel), the gaming device auto-initiates the bonus round or extended play only after a time-out period sufficient for the patron to review options and make an informed decision.
- c) The bonus or extended feature is offered as part of community play that involves two or more patrons and where the delay of an offered selection or game initiation will directly impact the ability for other patrons to continue their bonus or extended feature. Prior to automatically making selections or initiating a community based bonus or feature the patron must be made aware of the time remaining in which they must make their selection or initiate play.

Extra Credits Wagered During Bonus Games

2.3.27 General Statement.

If a bonus or feature game requires extra credits to be wagered during the bonus 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 where winnings on the temporary meter, up to the maximum bet amount, can be bet via the credit meter to allow for 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 game feature;
- c) provide a patron an opportunity not to participate; and
- d) not exceed the maximum bet limit established in the Compact.

Multiple Games on a Gaming Device

2.3.28 Selection of Game for Display.

- a) The method by which a patron selects or discards a particular game for play on a multi-game gaming device shall be clearly explained on the gaming device so a reasonable patron can understand it.
- b) A multi-game gaming device shall at all times make a patron aware of which game has been selected for play and is being played, as applicable.
- c) The patron shall not be forced to play a game just by selecting that game, unless the game screen clearly indicates the game selection is unchangeable. If not disclosed, the patron shall be able to return to the main menu.
- d) It shall not be possible to start a new game before the current play is completed and all relevant meters have been updated, including features, gamble and other options of the game, unless the action to start a new game terminates the current play in an orderly manner.
- e) The set of games offered to a patron for selection and the paytables for those games may be changed only by a secure certified method which includes turning on and off games available for play.
- f) No changes to the set of games offered to the patron for selection (or to the payable) are permitted while there are credits on a patron’s credit meter or while a game is in progress.
- g) The gaming device shall be able to clearly display the rules and the paytables for all games before the patron must commit to playing them.

Electronic Metering within a Gaming Device

2.3.29 General Statement.

All gaming devices shall contain electronic meters for the purpose of reporting to the MCS and recording all significant events and other metering information required by the Compact and Appendices. Each meter shall be at least 99.99% accurate.

2.3.30 Credit Meter Units and Display.

The credit meter shall display credits or currency value and shall at all times indicate all credits or cash available for the patron to wager or cashout with the exception of when the patron is viewing an informational screen such as a menu or help screen item, or when a tilt condition or malfunction exists. Currency shall be displayed with two places to the right of the decimal point.

2.3.31 Credit Meter – Incrementing.

The value of every award, except handpays or merchandise, shall be added to a patron's credit meter at the end of each game. The credit meter also shall add the value of all valid coins, tokens, currency, tickets, or coupons accepted.

2.3.32 Progressives Awards.

Progressive awards may only be added to a patron's credit meter if:

- a) the credit meter is maintained in currency amount format; or
- b) the progressive meter is incremented to whole credit amounts; or
- c) the currency amount of the award is converted to credits upon transfer to the patron's credit meter in a manner that does not mislead a reasonable patron or cause accounting imbalances.

2.3.33 Collect Meter.

Each gaming device shall include a collect meter that shows the number of credits or cash collected by a patron upon a cashout, which shall be displayed at all times with the exception of when a tilt condition or malfunction exists. The number of credits or cash collected shall be subtracted from the patron's credit meter and added to the collect meter. This meter may include handpays.

2.3.34 Software Meter Information Access.

The software meter information shall only be accessible by an authorized person using a secure means and shall be displayed on demand.

2.3.35 Electronic Accounting Meters.

Electronic accounting meters shall be at least ten (10) digits in length. All electronic accounting meters required in this Appendix shall be maintained either in credit units equal to the

denomination of the gaming device or in dollars and cents (regardless of whether the provision requiring the meter refers to metering credits or values). If the meter is being used in dollars and cents, at least eight digits shall be used for the dollar amount and two (2) digits used for the cents amount. Devices configured for multi-denomination play shall display the units in dollars and cents. If a transaction will cause an electronic accounting meter to reach or exceed the maximum read-out value for the meter, the meter shall roll over to zero or to another logical number upon completion of the transaction. Meters shall be labeled so they can be clearly understood in accordance with their function. All gaming devices shall retain all meter information specified in this section for a minimum of 72 hours in the event of a power loss to the gaming device. Each gaming device shall include the following electronic accounting meters, which shall accurately accumulate the described information:

- a) Coins-In (or Cash In), which is a meter that accumulates the total value of all wagers, whether the wagered amount results from the insertion of coins, token, currency, deduction from a credit meter or any other means. This meter:
 - 1) shall not include subsequent wagers of intermediate winnings accumulated during a game play sequence such as those acquired from “double up” games;
 - 2) shall, for all games, provide the information necessary, on a per payable basis, to calculate a weighted average theoretical payback percentage; and
 - 3) may 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 payable, for gaming devices which contain paytables with differences in theoretical payback percentage which exceed 4 percent between wager categories.
- b) Coins-Out (or Credit Out), which is a meter that accumulates the total value of all amounts directly paid by the gaming device as a result of winning wagers, whether the payout is made from the hopper, to a meter or by any other means. This meter shall not record amounts awarded as the result of any incentive system or a progressive payout;
- c) Coin Drop, which is a meter that accumulates the total value of coins or tokens diverted to the drop, but only if the gaming device accepts coins or tokens;
- d) Attendant Paid Jackpots, which is a meter that accumulates the total value of credits paid by an attendant resulting from a game cycle, the amount of which is not capable of being paid by the machine itself. This meter shall not accumulate progressive amounts, amounts awarded as a result of an incentive system, or amounts not listed in the manufacturer’s par sheet. Jackpots which are keyed to the credit meter shall not increment this meter;
- e) Attendant Paid Cancelled Credit, which is 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 device to make the proper payout amount;

- f) Physical Coin-In, which is a meter that accumulates the total value of coins or tokens inserted into the gaming device, but only if the gaming device accepts coins or tokens;
- g) Physical Coin-Out, which is a meter that accumulates the value of all coins or tokens physically paid by the gaming device, but only if the gaming device accepts coins or tokens;
- h) Bill In, which is a meter that accumulates the total value of currency accepted. Additionally, the gaming device shall have a specific occurrence meter for each denomination of currency accepted that records the number of bills of each denomination accepted;
- i) Ticket In, which is a meter that accumulates the total value of all tickets accepted;
- j) Ticket Out, which is a meter that accumulates the total value of all tickets and payout receipts issued;
- k) Electronic Funds Transfer In (EFT In), which is a meter that accumulates the total value of unrestricted credits electronically transferred from a financial institution to the gaming device through a cashless wagering system;
- l) Cashless Account Transfer In (A.K.A. WAT In - Wagering Account Transfer In), which is a meter that accumulates the total value of unrestricted credits electronically transferred to the gaming device from a wagering account by means of an external connection between the device and a cashless wagering system;
- m) Cashless Account Transfer Out (A.K.A WAT Out - Wagering Account Transfer Out), which is a meter that accumulates the total value of unrestricted credits electronically transferred from the gaming device to a wagering account by means of an external connection between the device and a cashless wagering system;
- n) Restricted Electronic Promotion In, which is a meter that accumulates the total value of restricted credits electronically transferred to the gaming device from a promotional account by means of an external connection between the device and a cashless wagering system;
- o) Unrestricted Electronic Promotion In, which is a meter that accumulates the total value of unrestricted credits electronically transferred to the gaming device from a promotional account by means of an external connection between the device and a cashless wagering system;
- p) Restricted Electronic Promotion Out, which is a meter that accumulates the total value of restricted credits electronically transferred from the gaming device to a promotional account by means of an external connection between the device and a cashless wagering system;
- q) Unrestricted Electronic Promotion Out, which is a meter that accumulates the total value of unrestricted credits electronically transferred from the gaming device to a promotional account by means of an external connection between the device and a cashless wagering system;
- r) Coupon Promotion In, which is a meter that accumulates the total value of all coupons accepted;
- s) Coupon Promotion Out, which is a meter that accumulates the total value of all coupons issued;

- t) Machine Paid External Bonus Payout, which is a meter that accumulates the total value of awards from external bonusing transactions that are paid by the gaming device;
- u) Attendant Paid External Bonus Payout, which is a meter that accumulates the total value of awards from external bonusing transactions that are paid by an attendant. Bonus payouts which are keyed to the credit meter shall not increment this meter;
- v) Attendant Paid Progressive Payout, which is a meter that accumulates the total value of credits paid by an attendant as a result of a progressive award this is not capable of being paid by the device itself. Progressive payouts which are keyed to the credit meter shall not increment this meter;
- w) Machine Paid Progressive Payout, which is a meter that accumulates the total value of credits paid directly by the gaming device as a result of a progressive award. This meter does not include awards paid as a result of an external bonusing system; and
- x) Unrestricted Promotional Credits Wagered, which is a meter, if supported by function, which accumulates the total value of promotional unrestricted credits which are wagered. This includes credits that are transferred to the device electronically or through the acceptance of a coupon.

2.3.36 Occurrence Meters.

An occurrence meter shall be at least eight (8) digits in length. However, occurrence meters are not required to automatically roll over. Meters shall be labeled so they can be clearly understood in accordance with their function. All gaming devices shall retain all meter information specified in this section for a minimum of 72 hours in the event of a power loss to the gaming device. Each gaming device shall include the following occurrence meters, which shall accurately accumulate the described information:

- a) Games Played, which is a meter that accumulates the number of games played:
 - 1) since a power reset;
 - 2) since any external cabinet door that allows access to the logic area or the currency or coin compartment is closed; or
 - 3) since game initialization (NV memory clear);
- b) External Doors, which is a meter that accumulates the number of times that any external cabinet door that allows access to the logic area or currency or coin compartment has been opened since the last NV memory clear provided power is supplied to the device;
- c) Bill Acceptor Door (i.e., stacker door), which is a meter that accumulates the number of times the bill acceptor door has been opened since the last NV memory clear provided power is supplied to the device; and
- d) Progressive Occurrence, which is a meter that accumulates the number of times each progressive meter is activated. The progressive controller, whether that is the gaming device itself, or an external progressive controller, when configured

for progressive functionality, shall provide for this occurrence meter for each progressive level offered.

2.3.37 Paytable Specific Meters.

In addition to the one set of master electronic accounting meters required above, each individual game available for play shall have at least the payable meters “Credits Bet” meter (i.e., Coin In) and “Credits Won” meter (i.e., Coin Out) in either credits or dollars. Even if a “Double-up or Gamble” game is lost, the initial win amount, and not credits bet amount, shall be recorded in the game specific meters. Alternatively, there may be separate meters that account for the Double-up or Gamble information. Either way, the method of metering shall be understood on the screen by a reasonable person.

2.3.38 Double-Up or Gamble Meters.

For each type of Double-up or Gamble offered, there shall be sufficient meters to determine the feature’s actual return percentage, which shall increment every time a Double-up or Gamble play concludes, including all amounts wagered and won during interim plays. These meters shall reflect amount wagered and amount won. If a gaming device does not supply accounting for the Double-up or Gamble information, the feature shall not be enabled for use.

Residual Credits

2.3.39 General Statement.

Each gaming device shall provide a method for a patron to retain and recover residual credits.

Communication Protocol

2.3.40 General Statement.

- a) Each gaming device shall accurately report all metered information and error condition information to the MCS, except where there is a power loss or an error condition which prevents the communication. Gaming device meters shall be maintained so that this requirement is met.
- b) A gaming device must not allow any information contained in communication to or from the online monitoring system that is intended by the communication protocol to be protected, or which is of a sensitive nature, to be viewable through any display mechanism supported by the gaming device, including, but not limited to, validation information, secure PINs, credentials, or secure seeds and keys.

Error Conditions

2.3.41 General Statement.

Each gaming device shall detect and display error conditions. Upon detection the tower light shall illuminate or an audible alarm shall sound and the gaming device shall communicate the error condition to the MCS. Error conditions shall cause the gaming device to lock up and require attendant intervention. Error conditions shall be communicated to the MCS. Coin Acceptor Errors, Hopper Errors, Bill Acceptor Errors, Printer Errors and Door Open Error Conditions are listed in the applicable sections of this Appendix. Additional error conditions include, but are not limited to:

- a) NV memory error (for any critical memory);
- b) Low NV memory battery, for batteries external to the NV memory itself or low power source;
- c) Program error or authentication mismatch;
- d) Reel spin error that affects the outcome of the game, including a mis-index condition for rotating reels where the final positioning of the reel exceeds one-half of the width of the smallest symbol excluding blanks on the reel strip; and
- e) Power reset.

2.3.42 Reel Spin Errors

The specified reel number shall be identified in the error code. Microprocessor controlled reels shall be monitored to detect malfunctions such as a reel which is jammed, or is not spinning freely, or any attempt to manipulate their final resting position.

2.3.43 Error Condition Description.

For games that use error codes, the manufacturer shall affix inside each gaming device a list of error codes, and a description of their meanings. This requirement does not apply to video-based gaming devices; however, video-based gaming devices shall display meaningful text regarding all error conditions.

Program Interruption & Resumption

2.3.44 Interruption.

After a program interruption, a gaming device shall recover to the status it was in immediately prior to the interruption occurring. It shall be acceptable for the game to return to a game completion state provided the game history and all credit and accounting meters comprehend a completed game. If a power failure occurs during acceptance of a bill or other note, the bill validator shall give proper credits or return the note, however, there may be a small window of time where power may fail and credit may not be given. The window shall be less than one (1) second.

2.3.45 Restoring Power.

If a gaming device is powered down while in an error condition, upon restoring power, an error message shall be displayed and the gaming device shall remain locked-up. This is not required if power down is used as part of the error reset procedure, or if on power up or door closure the gaming device checks for the error condition and detects that the error no longer exists.

2.3.46 Simultaneous Inputs.

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

2.3.47 Resumption.

On program resumption, the following procedures shall be performed:

- a) Any communications to an external device shall not begin until the program resumption routine, including self-tests, is completed successfully;
- b) The bill validator device shall perform a self-test at each power-up. In the event of a self-test failure, the bill validator shall automatically disable itself (i.e., enter bill reject state) until the error state has been cleared.
- c) Control programs shall test themselves for possible corruption due to failure of the program storage media; and
- d) The integrity of all critical memory shall be checked.

2.3.48 Microprocessor Controlled Reels.

Microprocessor controlled reels (e.g., stepper motor 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 (e.g., the main door is closed, power is restored, audit mode is exited, or an error condition cleared).

Door Open/Close

2.3.49 Required Door Metering.

The MCS shall detect and meter or log access to the following doors or secure areas provided power is supplied to the device:

- a) all external doors (i.e., Main, Belly, etc.);
- b) drop box door, if the gaming device accepts coins or tokens;
- c) bill acceptor (stacker) door;

- d) any other door to a currency storage area; and
- e) logic door (if switches have been installed for this purpose).

2.3.50 Door Open Procedures.

When any one of the gaming device's external doors are opened, the game shall cease play, enter an error condition, display an appropriate error message, disable coin acceptance and bill acceptance, and either sound an alarm or illuminate the tower light or both.

2.3.51 Door Close Procedures.

When all of the gaming device's external doors are closed, the game shall return to its original state and display an appropriate error message, until the next game has ended.

Taxation Reporting Limits

2.3.52 General Statement.

If an award, from a single game cycle, requires the issuance of a W2-G form or equivalent a game shall enter a lock-up condition and shall require a handpay.

Test/Diagnostic Mode

2.3.53 General Statement.

If a gaming device is in a service, test, diagnostic or demo mode, any activity that incorporates credits entering or leaving a gaming device shall be completed before resumption of normal operation. There shall not be any mode other than normal operation (ready for play) that increments any of the electronic accounting meters. Any credits on the gaming device that were accrued during the service, 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.

2.3.54 Entry to and Exiting From Service, Test and Diagnostic Modes.

A patron shall not be able to cause a gaming device to enter a service, test or diagnostic mode. When exiting from a service, test or diagnostic mode, the game shall return to the original state it was in when the service, test or diagnostic mode was entered.

2.3.55 Service, Test, Diagnostic and Demo Mode.

Each gaming device shall clearly indicate when it is in service, test, diagnostic or demo mode.

Last Game Recall

2.3.56 Number of Last Plays Required.

Information on at least the last ten (10) games shall be retrievable on the operation of a suitable external key-switch, or another method that is not available to the patron.

2.3.57 Last Play Information Required.

Last play information shall provide all information required to fully reconstruct the last ten (10) games. All values shall be displayed, including the initial credits, credits bet, credits won, payline symbol combinations and credits paid whether the outcome resulted in a win or loss. This information may be represented in graphical or text format. If a progressive jackpot was awarded, it is sufficient to indicate the progressive jackpot was awarded and not display the value. This information shall include the final game outcome, including all patron choices and bonus features and the results of Double-up or Gamble (if applicable). Values may be displayed in currency or credits.

2.3.58 Bonus Rounds.

The ten (10) game recall shall reflect bonus rounds in their entirety. If a bonus round lasts a certain number of events, each with separate outcomes, each of the events shall be displayed with its corresponding outcome, regardless if the result is a win or loss. The recall shall also reflect position-dependent events if the outcome results in an award. Gaming devices offering games with a variable number of intermediate play steps per game shall provide the capability to display the last 50 play steps in addition to each base game.

Software Verification

2.3.59 General Statement.

Each gaming device shall have the ability to allow for an independent integrity check of the gaming device's critical files, which includes all control programs that may affect the integrity of the game. This shall be accomplished by the critical files being authenticated by a third-party device, which may be embedded within the game software, or having an interface port for a third-party device to authenticate the critical files. The integrity check method shall provide a means for field testing the software to identify and verify the critical files. A laboratory shall approve the integrity check method. The integrity check method shall be agreed to by the Tribal Gaming Office and the State Gaming Agency prior to approval of the gaming device. If the authentication program is contained within the game software, the manufacturer must receive written approval from the laboratory prior to submission to the laboratory for certification. In addition, the manufacturer shall provide a means to extract the program from the game software. This shall include all hardware and software needed to perform this function.

Mystery Awards

2.3.60 General Statement.

Gaming devices may offer mystery awards, but those which do shall indicate that they offer mystery awards. If the minimum mystery award is other than zero, the gaming device shall indicate the minimum award the patron may win as a mystery award. If the maximum mystery award is fixed, the gaming device shall indicate the maximum amount the patron may win as a mystery award. In addition, both a minimum and maximum amount must be displayed for any mystery award if the method to receive the award involves strategy or skill, including, methods where the value of the payable is used in order to make decisions that could increase the return to the player (e.g., video poker).

Tokenization

2.3.61 Tokenization

For games that allow tokenization, the game shall receive monetary value from the bill or coin acceptor and post to the player's credit meter the entire amount inserted and display any fractional credits when applicable. The gaming device may store the fractional credits if one of the following conditions is met:

- a) The game displays the credit meter in dollars and cents; or
- b) The game informs the player that there are fractional credits stored on the gaming device at an opportune time to avoid the possibility of the player walking away from the gaming device without such knowledge.

2.3.62 Tokenization – Fractional Value

If the monetary value received is not an even multiple of the tokenization factor for a game or the credit amount has a fractional value, the credits displayed for that game may be displayed and played as a truncated amount, (i.e., fractional part removed). However, the fractional credit amount shall be made available to the player when the truncated credit balance is zero.

2.3.63 Tokenization – Residual Credits

If residual credits exists, the gaming device shall provide a residual credit removal feature or any allowable cashout method to remove the residual credits or return the gaming device to normal game play (i.e., leave the residual credits on the player's credit meter for wagering). In addition:

- a) Residual credits bet on a residual credit removal play shall be added to the Coin-In meter. Residual credits won as a result of the residual credit removal play shall be added to the Coin-Out meter;
- b) If the residual credit removal play is won, the value of the win shall either:
 - 1) Increment the player's credit meter; or

- 2) Be automatically dispensed, and the value of the coin(s) added to the Coin-Out meter;
- c) All other appropriate gaming device meters shall be appropriately updated;
- d) If the residual credit removal play is lost, all residual credits are to be removed from the credit meter;
- e) If the residual credits are cashed out rather than wagered, the gaming device shall update the relevant meters (e.g., cancelled credit);
- f) The residual credit removal play feature shall return at least eighty percent (80%) to the player over the life of the game;
- g) The player's current options and/or choices shall be clearly indicated electronically or by video display, and shall not be misleading;
- h) If the residual credit removal play offers the player a choice to complete the game (e.g., select a hidden card), the player shall also be given the option of exiting the residual credit removal mode and return to the previous mode;
- i) It shall not be possible to confuse the residual credit removal play with any other game feature (e.g., double-up or gamble);
- j) If the residual credit removal play is offered on a multi-game gaming device, the play shall (for meter purposes of each individual game) either be considered to be a part of the game from which the play was invoked, or be treated as a separate game; and
- k) The last game recall shall either display the residual credit removal play result or contain sufficient information (e.g., updated meters) to derive the result.

CHAPTER 4 MULTI-STATION DEVICES

2.4.1 General Statement.

A multi-station device is a gaming device that incorporates more than one player station, and has only one random number generator, which is controlled by a master terminal. The master terminal shall contain the game's Central Processing Unit (CPU) and the Random Number Generator (RNG). The master terminal shall control the common game display, which is shared among the player stations. A multi-station device shall constitute a single gaming device for purposes of determining the number of gaming devices at a gaming facility provided that the total number of multi-station devices in a gaming facility does not exceed 2.5% of the gaming devices permitted in that gaming facility and the total number of multi-station device player stations in a gaming facility does not exceed twelve (12) times the number of multi-station devices allowed in that gaming facility – otherwise the individual player stations will each be deemed to be a gaming device. Each player station and master terminal together shall meet the applicable technical standards outlined throughout this Appendix, including machine identification and metering. The player stations may not have the visual appearance of a traditional slot machine. Solely for purposes of this Section 2.4.1, a player station has the visual appearance of a traditional slot machine if it includes, as an element of the display of game play, a display of spinning reels or a visual representation of reels, or a display of winning

symbol combinations upon pay lines or other similar indicators. A multi-station device can share player stations with other multi-station devices.

2.4.2. Player Stations.

Each player station through which players play simultaneously with other players at other player stations of a multi-station device shall not:

- a) have a means to individually determine game outcomes;
- b) be disconnected from the central processing unit of the multi-station device that determines the game outcomes for all player stations without rendering that player station inoperable; and
- c) separately contain a random number generator or other means to individually determine the game outcome.

The wagering limitations, pursuant to the provisions of the Compact, shall apply separately to each player station. With respect to a multi-station device that depicts the play of craps, the wagering limitation shall be applied to permit a player to place up to the maximum wager on any combination of betting opportunities offered before each roll of the dice with the opportunity to continue to place up to the maximum wager before each subsequent roll of the dice, whether or not the player wins or loses, until the player decides to discontinue play or the game cycle is ended. Players will be permitted to build up their wagers on subsequent rolls of the dice similar to the way that live game of craps is played. With respect to a multi-station device that depicts the play of blackjack, double-down, splitting and insurance bets during game play are considered to be an integral part of the actual game and are not considered to be multiple wagers, but instead multiple hands within the play of a single game cycle. With respect to a multi-station device that depicts the play of roulette, the wagering limitation shall be applied to permit a player to place up to the maximum wager on any combination of betting opportunities offered within the play of a single game cycle.

CHAPTER 5 SLOT TOURNAMENTS

2.5.1 Gaming Device Settings.

Each gaming device used in a single slot tournament shall utilize all the same electronics and gaming device settings, including reel speed setting.

2.5.2 Tournament Program.

Gaming devices that are located on the gaming floor and in play for patron use may be used for tournament play. All gaming devices used for slot tournament play may be equipped with certified software which allows for tournament mode play. The tournament option shall default to disabled. A gaming device shall never default to the tournament mode. If tournament mode is

an option on a gaming device, it shall be enabled by a TGO approved and controlled method requiring manual intervention and/or total replacement of the logic board with a certified tournament board.

2.5.3 Software.

Gaming devices enabled for slot tournament play shall not accept credits from any source, nor pay out credits in any way, but shall utilize credit points only. Slot tournament credits shall have no cash value. Notwithstanding Sections 2.1.54 - 2.1.56 and Sections 2.3.29 - 2.3.38, slot tournament gaming device play shall not increment any electronic or electro-mechanical meters, nor communicate any tournament-related accounting information to the MCS, unless they are meters designed exclusively for use with tournament software. All gaming devices in the tournament shall have identical tournament software. The percentage requirements as addressed in section 2.3.17 are waived for tournament games.

CHAPTER 6 INCENTIVE SYSTEMS

Overview

2.6.1 General Statement.

If the Gaming Facility Operator operates an incentive system, the incentive system shall comply with the requirements of this Chapter 6, in addition to the requirements set forth elsewhere in this Appendix A.

2.6.2 Advance Notice and Applicability of Appendix G.

Appendix G will not apply to incentive transactions; however, the Gaming Facility Operator must submit the rules for the incentive transactions it conducts to the Tribal Gaming Office, which shall then promptly provide them to the State Gaming Agency, prior to conducting those transactions. The rules shall contain a general description of the incentive transactions, including their frequency, the range of credits which will be electronically transferred, whether the involved credits will be restricted or unrestricted, under what circumstances credits are issued and transferred (e.g., through an Nth coin, prize multiplier, coupon or otherwise, when a prize will be awarded, and which patrons will be awarded a prize), and patron eligibility requirements. The Tribal Gaming Office need not provide the State Gaming Agency prior notice of changes to incentive transaction parameters, such as the date or time for an incentive transaction or the amount of credits to be transferred.

2.6.3 Tribal Contribution Reports and Computation.

- a) A host system shall distinguish incentive transactions from all other transactions in the reports it produces that provide an audit trail for Class III Net Win reported

to the State Gaming Agency, except as provided in Section 2.6.3(c) below. Credits transferred to a gaming device as part of an incentive transaction may be restricted or unrestricted credits.

- b) Restricted credits transferred to a gaming device as part of an incentive transaction, including through the use of coupons, shall not be fully or partially cashed out at a gaming device. The credits shall be used for play on a gaming device or be electronically transferred to a player's promotional account. However, credits transferred to a player's promotional account shall remain restricted and shall only be used for play on a gaming device. Restricted credits transferred to a gaming device as part of an incentive transaction shall be treated as Free Play Instrumentalities for purposes of Appendix I and shall not be included in the calculation of Class III Net Win. Jackpots or credits, which are described in the payable of the gaming device, won through the use of restricted credits are included in the calculation of Class III Net Win.
- c) Unrestricted credits transferred to a gaming device as part of an incentive transaction, including through the use of coupons, which can be fully or partially cashed out at a gaming device shall be included in the calculation of Class III Net Win if the host system reports cannot distinguish the cashing out of these credits from other credits on the gaming device. If the host system reports can clearly distinguish the cashing out of these credits from all other credits cashed out on the gaming device then these credits shall not be included in the calculation of Class III Net Win. Jackpots or credits, which are described in the payable of the gaming device, won through the use of unrestricted credits are included in the calculation of Class III Net Win.

2.6.4 Posting.

The Gaming Facility Operator shall conspicuously post in the gaming device and/or players club area of the Gaming Facility a notice of the availability of the rules for all incentive transactions. The Gaming Facility Operator shall make those rules available to all patrons upon request.

2.6.5 System Accuracy.

The host system must accurately account for all incentive transactions. The host system must correctly follow the rules and parameters for all incentive transactions.

Gaming Device Requirements

2.6.6 Configuring Incentive Transactions on a Gaming Device.

It shall not be possible to change a gaming device configuration setting relating to the incentive system that causes an obstruction to the electronic accounting meters without a RAM clear. Any such changes shall be done by a secure method that is approved and controlled by the Tribal Gaming Office.

2.6.7 Audit Trails for Incentive Transactions.

- a) Audit Trails for Promotional Transactions. A gaming device participating in promotional transactions shall have logs that are capable of recalling the last twenty-five (25) promotional transactions received from the host system and the last twenty-five (25) promotional transactions transmitted to the host system. If, however, a gaming device participates in cashless transactions, bonusing transactions, or both, as well as in promotional transactions, the gaming device may instead use a single 100-event log. The log must be capable of displaying:
 - 1) the type of transaction (upload/download), if utilizing a single 100-event log;
 - 2) the transaction value;
 - 3) whether a promotional transaction involved restricted credits or unrestricted credits; and
 - 4) the time and date.
- b) Audit Trails for Bonusing Transactions. A gaming device participating in bonusing transactions shall have logs that are capable of recalling the last twenty-five (25) bonusing transactions received from the host system. If, however, a gaming device participates in cashless transactions, promotional transactions, or both, as well as in bonusing transactions, the gaming device may instead use a single 100-event log. The log must be capable of displaying:
 - 1) the type of transaction (upload/download), if utilizing a single 100-event log;
 - 2) the transaction value; and
 - 3) the time and date.

2.6.8 Meter Requirements for Incentive System Gaming Devices.

- a) Meter Requirements for Promotional Transactions.
 - 1) A gaming device participating in promotional transactions shall have electronic accounting meters that track the following:
 - A. Total credits in from promotional transactions (credits received from the host system by a gaming device in promotional transactions), including total unrestricted credits in and total restricted credits in.
 - B. Total credits out from promotional transactions (credits removed from a gaming device and transferred back to a patron's account), including total unrestricted credits out and total restricted credits out.
 - 2) The meters tracking credits in and credits out for promotional transactions shall not directly affect the operation of the meters required by Section 2.3.35(a) - (m) and (t) - (w) of this Appendix.

- 3) If a gaming device commingles restricted credits and unrestricted credits on one credit meter and a patron has both restricted and unrestricted credits available, the gaming device first must pull from the restricted credit balance during patron wagering, such that the patron must wager all restricted credits before wagering any unrestricted credits.
- b) Meter Requirements for Bonusing Transactions.
 - 1) A gaming device participating in bonusing transactions shall have electronic accounting meters that track the following:
 - A. Total credits in from bonusing transactions (credits received from the host system by a gaming device in bonusing transactions); and
 - B. Total credits paid out from bonusing transactions including total credits paid by the gaming device (machine paid) and total credits paid by an attendant (attendant paid).
 - 2) The meters tracking credits in and credits out for bonusing transactions shall not directly affect the operation of the meters required by Section 2.3.35(a) - (s) and (v) - (w) of this Appendix.
 - 3) Provisions shall be made either at the host system level or the gaming device level for the maintenance of separate percentage return/hold calculations for bonus enabled games (one including bonus win and the other without).

2.6.9 Error Conditions.

If a promotional transaction fails because the host system does not recognize a patron I.D., PIN number, or account number, the gaming device shall display an explanatory error message and, if permitted, prompt the patron to re-enter the information.

2.6.10 Transfer of Transactions.

If a patron initiates a promotional transaction, and the transaction would exceed game configured limits (i.e., the credit limit, etc.), the transaction may only be processed provided that the patron is clearly notified that they have received or deposited less than requested to avoid patron disputes.

2.6.11 Identifying a Gaming Device which is part of an Incentive System.

The Gaming Facility Operator shall provide a means for patrons to identify those gaming devices that participate in incentive transactions, with the means being approved by the Tribal Gaming Office, with notice to the State Gaming Agency.

2.6.12 Notification of an Incentive Transaction.

The method of notification of an incentive transaction may include any combination of host messaging, sounds, or visual indicators as determined by the Gaming Facility Operator, subject

to the approval of the Tribal Gaming Office and notice to the State Gaming Agency. A gaming device also shall display the amount of an incentive transaction.

Host System Security Requirements

2.6.13 General Statement.

The requirements within this section shall be implemented by the host system to allow for securely changing any of the associated parameters. Additionally, the communication process shall secure each incentive transaction such that failure event(s) can be identified and logged for subsequent audit and reconciliation.

2.6.14 Communication Failure.

If communications between the host system and a gaming device participating in incentive transactions are lost, the host system shall not process incentive transactions for that gaming device until communications are reestablished.

- a) In the event of a communication failure in a bonusing transaction, a message must be available to the Gaming Facility Operator under a diagnostic function, at either the game or host system level, which would indicate the reason for the bonusing transaction failure. In these circumstances, the host system shall recognize the failure and notify appropriate Gaming Facility Operator personnel so that manual procedures may be implemented to correct the problem and to ensure proper payment.
- b) When a patron attempts a promotional transaction with a gaming device that has lost communication with the host system, the gaming device must reject the promotional transaction.

2.6.15 Modification of Parameters.

The Gaming Facility Operator shall submit to the Tribal Gaming Office the parameters for the configuration of incentive transactions as well as any changes to those parameters prior to implementing those parameters or changes. All changes to parameters and configurations for incentive transactions shall be logged, with the log indicating:

- a) who made the change;
- b) the time and date of the change;
- c) the altered parameter;
- d) the parameter value before and after the change; and
- e) the reason for the parameter adjustment.

2.6.16 Prevention of Unauthorized Transactions.

The incentive system shall not allow any computer node to access the incentive system without the entry of a valid user name and password. The Gaming Facility Operator shall do the following to prevent gaming devices from responding to requests for incentive transactions that are not properly authorized incentive transactions (e.g., hacking):

- a) The Gaming Facility Operator shall secure the host system servers, host system network hubs, and host system network switches in a locked or monitored room or area.
- b) The incentive system must use accepted industry standards for security to prevent unauthorized persons from adjusting critical parameters of the incentive system;
- c) The Gaming Facility Operator shall limit the number of users who are authorized to adjust critical parameters of the incentive system;
- d) The Gaming Facility Operator must establish rules or procedures for incentive system parameter configuration applications to enforce logical separation of controls to discourage misbehavior; and
- e) The Gaming Facility Operator shall have procedures to review user accounts and patrons' club accounts to attempt to identify any misbehavior.

2.6.17 Diagnostic Tests on an Incentive Gaming Device.

Controls shall be placed on any diagnostic functionality available at the device/system such that all activity will reflect a specific account(s) and the individual(s) tasked to perform these diagnostics whereby all incentive diagnostic activity that affect the gaming device associated electronic meters may be audited.

Host System Audit Trails

2.6.18 General Statement.

The host system shall be capable of producing logs for all incentive transactions with the same information required to be stored in gaming device audit logs and the host system shall be capable of filtering the logs by:

- a) gaming device number;
- b) patrons' club account number (but only for promotional transactions made with a patrons' club account number);
- c) time/date;
- d) type of transaction; and
- e) promotional identification (but only for promotional transactions).

2.6.19 Financial Reports.

- a) The host system shall produce reports for promotional transactions that, at a minimum, contain the following information:

- 1) summary and detail reports of promotional transactions, including beginning and ending balances and transaction information including gaming device number, amount, date/time, and type of promotional transaction (if multiple types are supported));
 - 2) a liability report with the previous day's ending value of outstanding promotional transaction liability, total promotional transactions in, total promotional transactions out, expired promotional transaction values, and the current day's ending promotional transaction liability;
 - 3) promotional transaction meter reconciliation summary and detail reports with a reconciliation of the promotional transaction meters for each gaming device participating in promotional transactions against the host system's promotional transaction activity; and
 - 4) an auditing report with the details of any modifications to critical parameters for promotional transactions.
- b) The host system shall produce reports for bonusing transactions that, at a minimum, contain the following information:
- 1) summary and detail reports of bonusing transactions including gaming device number, amount, date/time, and type of bonus (if multiple types are supported);
 - 2) bonus meter reconciliation summary and detail reports with a reconciliation of the bonus meters for each gaming device participating in bonusing transactions against the host system's bonus activity;
 - 3) a report comparing the theoretical hold percentages for each gaming device participating in bonusing transactions to the actual hold percentages for those gaming devices including bonusing wins and excluding bonusing wins; and
 - 4) an auditing report with the details of any modifications to critical parameters for bonusing transactions.

Patrons' Club Accounts

2.6.20 General Statement.

Before the host system completes a promotional transaction initiated at a gaming device that is tied to a specific patron's account (e.g., a redemption of patrons' club points from a patron's account), the host system first must require the patron to provide a means of uniquely identifying the patron (e.g., swiping a patrons' club card and entering a personal identification number).

2.6.21 Removing Credits from a Patron's Account.

The host system may allow credits from a promotional transaction to be removed from a patron's account through:

- a) A patron downloading credits to a gaming device participating in promotional transactions;
- b) A patron redeeming credits for a ticket, cash, merchandise, services, or other consideration at a patrons' club booth, a cashier, or kiosk;
- c) The expiration of credits;
- d) The deactivation or termination of a patrons' club account; or
- e) Corrections initiated by the Gaming Facility Operator. The Gaming Facility Operator shall adopt, and adhere to, policies and procedures for such corrections. These policies and procedures shall be approved by the Tribal Gaming Office.

2.6.22 Transaction Report.

The host system shall be capable of producing a report that, at a minimum, lists current balance information and each individual promotional transaction associated with a patrons' club account with amounts for the year preceding the report, including, but not limited to, each transaction listed in Section 2.6.21. Patrons shall be provided the ability to review this report for their accounts after confirmation of patron identity through personal identification numbers or otherwise. All discretionary account funds (i.e., those funds that have a possible expiration, etc.) shall be maintained separately.

Incentive System Controls

2.6.23 Host System Random Number Generator.

Incentive systems that utilize an electro-mechanical Random Number Generator (RNG) shall comply with the requirements of this appendix, including 2.3.8 and 2.3.16.

2.6.24 Internal Control System.

The Tribal Gaming Office, or the Gaming Facility Operator as approved by the Tribal Gaming Office, shall establish and the Gaming Facility Operator shall comply with internal control standards, procedures and/or rules deemed appropriate to ensure the integrity, accountability and security of the incentive system, incentive transactions and patron account information.

2.6.25 Access to the Incentive System.

The incentive system shall provide for the following controls for access to the system:

- a) Generate daily monitoring logs of user access, security incidents and unusual transactions, and immediately alert the Gaming Facility Operator of critical security incidents and unusual transactions. The Gaming Facility Operator shall then immediately alert the Tribal Gaming Office of the critical security incidents and unusual transactions.
- b) Assignment of rights and privileges to each user, including:

- 1) Allowance for the secure administration of user accounts to provide an adequate separation of duties; and
- 2) Contain adequate password parameters such as lockout, minimum length, and expiration interval;
- c) Use appropriate access permissions to restrict unauthorized users from viewing, changing or deleting critical files and directories; and
- d) Utilize encryption or password protection or equivalent security for files and directories containing critical or sensitive data. If encryption is not used, the Gaming Facility Operator shall restrict users from viewing the contents of such files and directories, which at a minimum shall provide for the following:
 - 1) The effective segregation of duties and responsibilities with regard to the incentive system; and
 - 2) The automatic monitoring and recording by the incentive system of access by any person to such files and directories.

2.6.26 Incentive System Operation.

The incentive system shall provide for the following controls for system operations:

- a) Validate the identity of those components of an incentive system from which a transmission is received;
- b) Ensure that all data sent through a transmission is completely and accurately received; and
- c) Detect the presence of corrupt or lost data packets and, as necessary, rejects the transmission.

2.6.27 Integrity of Data.

- a) If coupons are used, they each shall have a unique validation number. The number may be assigned by a unique algorithm or by another method tested and approved by a laboratory, which method shall prevent the ability to predict the composition of any other validation number generated by the host system.
- b) The host system shall validate the data type and format of all inputs for critical fields and reject any corrupt data.
- c) The host system shall automatically and independently record critical data upon the completion of each incentive transaction.

2.6.28 Database and Validation Component Security.

Once validation information is stored in the database, the data shall not be altered in any way. The validation system database shall be encrypted or password-protected to prevent unauthorized access and shall provide a non-alterable user audit trail. The normal operation of any device that holds incentive transaction information shall not have any options or method that can compromise incentive transaction information. Any device that holds incentive transaction

information in its memory shall not allow removal of the information unless it has first transferred that information to the database or other secured component(s) of the validation system.

2.6.29 Incentive System Standards.

The Gaming Facility Operator shall maintain written policies and procedures for:

- a) Utilizing and maintaining the incentive system;
- b) Monitoring incentive system security and error codes;
- c) Enabling and disabling the incentive system;
- d) Issuance, modification, and termination of user accounts;
- e) Configuring and maintaining user passwords;
- f) Restricting special rights and privileges such as “administrator” and override capabilities;
- g) System level access for the MIS, internal audit, slot and accounting departments;
- h) Identification, location and description of all software files and directories;
- i) Procedures for the backup and timely recovery of critical data and failure analysis; and
- j) Logs used to document and maintain the details of any hardware and software modifications upon implementation.

Promotional Transactions Involving Coupons

2.6.30 Printing of Coupons.

The Gaming Facility Operator shall set forth in its system of internal controls the procedures to be used to print or create coupons or any similar items which are used as part of a promotional transaction, including security and control over inventory, issuance, redemption and destruction.

2.6.31 Incentive System Failure.

If the incentive system temporarily ceases to function and validation information cannot be sent to the validation system, an alternate method of payment must be provided either by the validation system possessing unique features (validity checking of coupons or similar items through a redundant system) to identify duplicate coupons or similar items and prevent fraud, or use of an alternative method approved by the Tribal Gaming Office.

2.6.32 Manual Coupon Processing.

The Gaming Facility Operator shall establish procedures in its internal controls for situations where a coupon or similar item for which validation information cannot be accessed from the incentive system or for which no validation information exists is presented for payment. Procedures shall include:

- a) Manual override or redemption procedures for valid transactions;
- b) Procedures for the physical cancellation, segregation and security of coupons or similar items, for valid transactions;
- c) Provisions for the electronic verification and cancellation of coupons or similar devices when the incentive system is restored following manual override procedures; and
- d) Preparation of a report for each cashier's shift of the total number and value of all such coupons or similar items redeemed.

2.6.33 Forwarded to Accounting.

All coupons or similar items redeemed at locations other than gaming devices shall be forwarded to the accounting department on a daily basis. All coupons or similar items redeemed through the bill/ticket acceptor devices on participating gaming devices, as well as coupons or similar items found within the bill/ticket acceptor devices but outside the storage boxes during drop procedures, and counted in the count room in accordance with Appendix H MICS, shall be forwarded to the accounting department upon conclusion of the count process.

2.6.34 Coupon Retention.

All coupons or similar items forwarded to the accounting department shall be retained by the Gaming Facility Operator in compliance with the provisions of Compact Section 7(c) in a manner it determines subject to approval by the Tribal Gaming Office and notice to the State Gaming Agency. Any agreement the Tribe and the State have reached for the retention of tickets and/or vouchers under Section 7(c) shall also apply to the retention of coupons.

Incentive Award Procedures

2.6.35 Notification to Tribal Gaming Office.

The Gaming Facility Operator shall establish procedures in its internal controls for the immediate notification of the Tribal Gaming Office inspector on duty of any:

- a) Evidence that a coupon has been counterfeited or tampered with in any way that would affect the integrity of the coupon;
- b) Evidence that approved rules and parameters for incentive transactions are not being followed; or
- c) Evidence of fraud with respect to an incentive transaction.

2.6.36 Reporting Requirements.

At a minimum, the host system shall generate the following detailed reports, or their equivalent, at the end of each gaming day:

- a) coupons issued report and promotional transactions (other than those involving coupons) issued report;
- b) coupons redeemed report and promotional transactions (other than those involving coupons) redeemed report;
- c) coupons outstanding (liability) report and promotional transactions (other than those involving coupons) outstanding (liability) report;
- d) coupons dropped report and promotional transactions (other than those involving coupons) dropped report;
- e) cashier report detailing the sum of coupons paid by the cashier or validation unit and cashier report detailing the sum of promotional transactions (other than those involving coupons) paid by the cashier or validation unit;
- f) transaction detail report detailing the sum of coupons redeemed at each validation terminal or gaming device and transaction detail report detailing the sum of promotional transactions (other than those involving coupons) redeemed at each validation terminal or gaming device;
- g) coupons expired report and promotional transactions (other than those involving coupons) expired report;
- h) coupons voided report and promotional transactions (other than those involving coupons) voided report;
- i) coupons exception report and promotional transactions (other than those involving coupons) exception report;
- j) coupons drop variance report and promotional transactions (other than those involving coupons) drop variance report;
- k) bonusing transactions issued report;
- l) machine paid bonus payouts and attendant paid bonus payouts; and
- m) bonusing transaction exceptions.

The incentive system shall use the same 24-hour cutoff as the MCS when generating reports. The Gaming Facility Operator shall reconcile these reports at the end of each gaming day with all validated/redeemed coupons or similar items. With respect to coupons not issued by a gaming device, the coupons issued report and the coupons outstanding (liability) report referenced in subsections (a) and (c) above shall include only redeemed coupons.

2.6.37 Coupon Requirements.

Coupons used in promotional transactions shall contain at least the following printed information:

- a) the gaming facility(ies) or site(s) at which the coupon is valid;
- b) coupon sequence number;
- c) coupon validation number;
- d) bar code or any machine readable code representing the coupon validation number;

- e) type of transaction or other method for differentiating coupon types including whether the coupon is restricted and any restrictions on the redemption of the coupon;
- f) indication of an expiration period; and
- g) the coupon validation number printed a second time on the leading edge of the coupon.

2.6.38 Coupon Issuance.

Cashier/change booths and kiosks may issue coupons if supported by the validation system. All issued coupons shall be tracked and verified by a validation system.

2.6.39 On-line Coupon Redemption.

When a patron seeks to obtain credits on a gaming device by inserting a coupon, no credits may be issued to the gaming device until coupon validation has occurred. A patron may also redeem an unrestricted coupon at a cashier/change booth, kiosk or other approved validation terminal.

2.6.40 Cashier/Change Booth Operation.

All coupon validation terminals in a cashier/change booth shall require a valid user name and password.

2.6.41 Invalid Coupon Notification.

The validation system or MCS shall have the ability to identify and notify the cashier of the following occurrences:

- a) a coupon validation number or coupon sequence number cannot be found on file;
- b) a coupon has already been paid;
- c) the amount of a coupon differs from the amount on file; or
- d) any other error condition.

2.6.42 Voiding Procedures.

The Gaming Facility Operator shall have and follow procedures to track and void coupons.

Software Verification

2.7.1 Incentive System Software Verification

Each component/module within an incentive system that would affect the integrity of the system shall be verifiable by a secure means at the system level. The system shall have the ability to allow for an independent integrity check of the components/modules from an outside source and

is required for all control programs that may affect the integrity of the system. This can be accomplished by being authenticated by a third-party device, which may be embedded within the component/module software or having an interface port for a third-party device to authenticate the media. The integrity check shall provide a means for field verification of the system components/modules to identify and validate the programs/files. The integrity check methodology must be approved by the independent test laboratory.

PART III **PROGRESSIVE GAMING DEVICES**

CHAPTER 1 **OVERVIEW**

3.1.1 Progressives Defined and Sections Applied.

As used in this part:

- a) “stand-alone progressive gaming device” means a single progressive gaming device that is not linked to other progressive gaming devices;
- b) “multiple gaming device progressive” means one or more gaming device(s) that offer common progressive jackpots and that is linked to the same progressive controller within a single gaming facility;
- c) “multi-site progressive gaming devices” means progressive gaming devices that are interconnected to more than one gaming facility;
- d) “progressive meter” means an electro-mechanical or electronic device, including a video display, if applicable, that shows a payoff that increments at a set rate of progression as credits are wagered; and
- e) “progressive controller” means hardware and software that controls communications among the devices that calculate the values of the progressive jackpots and displays the information within a progressive gaming device link and on the associated progressive meter. If applicable, progressive controllers may be internally controlled by the game’s control program. A progressive controller may consist of more than one discrete component and includes but is not limited to PC-based computers, wiring, interface boards and collection nodes, etc.

CHAPTER 2 **PROGRESSIVE GAMING DEVICE COMPONENT REQUIREMENTS**

3.2.1 Application of Compact.

In addition to complying with the requirements for gaming devices generally, progressive gaming devices also shall comply with all standards of this Part III.

Progressive Meter/Display Requirements

3.2.2 General Statement.

One or more progressive gaming devices shall be linked to a progressive meter. A patron shall know that he or she is playing a progressive game and shall not have to play the maximum bet amount to find out.

3.2.3 Progressive Displays.

- a) A progressive meter, other than a progressive meter for a mystery award, shall be visible to a patron of a progressive gaming device. A displayed progressive meter shall show the current total of the progressive jackpot in credits or in monetary value (although minor discrepancies resulting from polling cycle delays are acceptable). Credits contributed to the progressive system during the polling cycle in which a jackpot signal is received by the progressive controller shall be deemed to have been contributed to the progressive amount before the jackpot; credits contributed to the progressive system in any subsequent polling cycle shall be deemed to have been contributed to the progressive amount after the jackpot.
- b) Progressive gaming devices that offer mystery awards do not have to display to the patron the current amount of the mystery award, but shall indicate that they offer mystery awards. If the minimum mystery award is other than zero, the gaming device shall indicate the minimum award the patron may win as a mystery award. If the maximum mystery award is fixed, the gaming device shall indicate the maximum amount the patron may win as a mystery award. For progressive mystery awards, credits contributed to the progressive system during the polling cycle in which a jackpot signal is received by the progressive controller shall be deemed to have been contributed to the progressive amount before the jackpot; credits contributed to the progressive system in any subsequent polling cycle shall be deemed to have been contributed to the progressive amount after the jackpot.

3.2.4 Updating Displays.

The progressive meter shall display the winning value within thirty (30) seconds of the jackpot being recognized by the MCS. The system jackpot meter of paced updating displays shall display the winning value after the jackpot signal is received from the MCS. If no jackpot display capability is operating at a gaming facility the facility shall immediately shut down the progressive system. Any device that has a feature that doubles, triples, etc., any win shall have a sign that states the progressive award will not be doubled or tripled if won during the feature, if this is the intention.

3.2.5 Progressive Display Digital Limitations.

If the progressive meter increments to its maximum display amount, the meter shall freeze and remain at the maximum value until awarded to a patron.

3.2.6 Alternating Displays.

Multiple items of information to be displayed on a gaming device or progressive meter may be displayed in an alternating fashion.

Progressive Controller Requirements

3.2.7 Setting the Jackpot Amounts.

The method by which system jackpot parameter values are modified or entered shall be secure and monitored by the Tribal Gaming Office. All progressive gaming devices or any approved progressive gaming device system component shall display, upon request, the following information for each progressive jackpot offered (if applicable):

- a) current value (current prize amount);
- b) limit (jackpot limit value);
- c) hits (number of times this progressive was won);
- d) wins (total value of wins for this progressive or a history of the last 25 progressive hits);
- e) base (starting value);
- f) overflow (amount exceeding the limit);
- g) increment (percentage increment rate);
- h) secondary increment (percentage increment rate after limit is reached);
- i) hidden increment (percentage increment rate for the reserve pool);
- j) reset value (the amount the progressive resets to after the progressive is won); and
- k) the participating gaming devices.

3.2.8 Progressive Controller Program Interruption.

After a program interruption (e.g., power down), the software shall recover to the status it was in immediately prior to the interruption occurring.

3.2.9 Progressive Resumption.

On 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) The control program shall utilize an integrity check, preferably a secured hashing method such as CRC, MD5 or SHA, to authenticate that the program and/or support files have not been corrupted or altered prior to use or loading.
- c) The integrity of all critical memory shall be checked.

3.2.10 Communications for Signaling of a Jackpot.

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

- a) send to the gaming device the amount that was won for metering purposes; and
- b) constantly update the progressive display as play on the link is continued.

3.2.11 Monitoring of Credits Bet.

During the “Normal Mode” of progressive gaming devices, the progressive controller shall continuously monitor each gaming device on the link for credits bet and shall multiply the same by the rate of progression and denomination in order to determine the correct amounts to apply to the progressive jackpot. This shall be at least 99.99% accurate.

3.2.12 Progressive Controller Required Meters.

The progressive controller or other approved progressive gaming device system component shall keep the following information in non-volatile memory. Each meter shall be at least 99.99% accurate and shall display on demand:

- a) The number of progressive jackpots won on each progressive level if the progressive display has more than one winning amount;
- b) The cumulative amounts paid on each progressive level if the progressive display has more than one winning amount;
- c) The maximum amount of the progressive payout for each level displayed;
- d) The minimum amount of the progressive payout for each level displayed; and
- e) The rate of progression for each level displayed.

3.2.13 Controller and Display Functions During Progressive Jackpot Win.

When a progressive jackpot is recorded on a gaming device attached to the progressive controller, the progressive controller shall allow for the following to occur on either or both the gaming device and the progressive display:

- a) display of the winning amount;
- b) display of the gaming device identification that caused the progressive meter to activate if more than one gaming device is attached to the controller;

- c) the progressive controller shall automatically reset to the reset amount and continue normal play; and
- d) display the new progressive values that are current on the link.

3.2.14 Base Progressive Jackpot Amount.

The base amount of a progressive jackpot shall begin at or above a jackpot for that particular gaming device that makes the entire meter payout greater than the minimum percentage requirement.

3.2.15 Progressive Controller Error Conditions.

When a controller error occurs, it shall alternate the displays, or equivalent, between the current amount and an appropriate error message that is visible to all patrons, or alert the gaming facility to the error condition. If the following events occur, the game that is using the progressive shall be disabled, and an error shall be displayed on the progressive meter, other approved progressive gaming device system component, or gaming device:

- a) during a communication failure;
- b) when there have been multiple communication errors;
- e) when a controller verification failure occurs;
- f) when a controller's RAM or PSD (program storage device) mismatch or failure occurs;
- g) when the current amount is larger than the limit;
- h) when the jackpot configuration is lost or is not set;
- i) if there has been an unreasonable amount of credits bet (an unreasonable amount of credits bet is defined by the progressive set up which is based on the number of bets and number of gaming device); or
- j) if the game meters are validated against the controller's meters and they do not reconcile.

3.2.16 Jackpots Limits.

The controller may be configured with a limit on the jackpot of a progressive gaming device, if the limit imposed is equal to or greater than the jackpot payout on the gaming device at the time the limit is imposed.

3.2.17 Access to the Progressive Controller.

Each progressive controller used with a gaming device shall be housed in a secure and locked compartment or area allowing only authorized access. The MCS shall detect and meter access to the progressive controller access door. The compartment or area's keys shall be controlled and maintained by the Tribal Gaming Office. A progressive controller access log shall be maintained for each progressive controller. Upon agreement of the Tribal Gaming Office and the State

Gaming Agency, the progressive controller access log may be in written or electronic form. Regardless of whether it is in written or electronic form, the log shall be maintained pursuant to Compact Section 7(c) and shall contain the following:

- a) the date of access;
- b) the time of access;
- c) the name of the person accessing the controller;
- d) the employee identification number of the person accessing the controller;
- e) the reason for access;
- f) the signature or initials of the person accessing the controller, if a written access log is maintained; and
- g) Where the progressive controller access log is in electronic form, each person accessing the progressive controller must have an assigned, unique access card and must use that card when accessing the progressive controller.

Progressive Jackpots

3.2.18 General Statement.

A progressive jackpot is an award for a winning or non-winning (e.g., a mystery award) play of the game. A bonus game where certain circumstances are required to be satisfied prior to awarding a fixed bonus award is not a progressive gaming device and is not subject to these procedures.

3.2.19 Swapping Progressive Levels.

For progressive systems offering multiple levels of jackpots, the patron shall always be paid the higher progressive amount, if a particular combination is won that should trigger the higher paying jackpot. This may occur when a winning combination may be evaluated as more than one of the available payable combinations (e.g., a Flush is a form of a Straight Flush and a Straight Flush is a form of a Royal Flush). Therefore, there may be situations where the progressive levels shall be swapped to ensure the patron is being awarded the highest possible progressive value based on all combinations the outcome may be defined as.

3.2.20 Gaming Device Requirements When Progressive Awarded.

When a progressive jackpot has been awarded, the gaming device or other approved progressive component shall perform the following:

- a) an appropriate message shall be displayed;
- b) unless the jackpot is transferred to the patron's credit meter, the gaming device shall lock-up until the jackpot has been paid by the attendant;
- c) all progressive-related meters shall be updated; and
- d) a light or alarm shall alert the patron upon winning a mystery award.

3.2.21 Progressive Gaming Device Metering Requirements.

Each gaming device on the link shall update its electronic meters to reflect the winning progressive jackpot amount. Progressive jackpots requiring the issuance of a W2-G form or equivalent shall require a manual handpay by an attendant. Progressive wins may only be added to the credit meter if either:

- a) the credit meter is maintained in monetary value or credits;
- b) the progressive meter is incremented to whole credit amounts; or
- c) the jackpot, in monetary value, is converted to credits on transfer to the patron's credit meter in a manner that does not mislead the patron. The conversion from monetary value to credits shall always round up.

Progressive Percentage Requirements and Odds

3.2.22 Linked Gaming Device Odds.

Each gaming device on the link shall have the same probability of winning the progressive, adjusted for the denomination played and credits wagered. The odds may allow for minimal rounding adjustments not to exceed .005%.

Progressive Controller Software

3.2.23 Independent Control Program Verification.

The progressive controller used within a progressive system shall allow for an independent integrity check of the progressive controller software. This shall be accomplished by the progressive controller software being authenticated by a third-party device, which may be embedded within the progressive controller software, or having an interface port for a third-party device to authenticate the progressive controller software. The integrity check method shall provide a means for field testing to identify and verify the progressive controller files. A laboratory shall approve the integrity check method. The laboratory shall provide the Tribal Gaming Office and the State Gaming Agency detailed information and instructions for field testing the progressive controller software. If the authentication program is contained within the progressive controller software, the manufacturer must receive written approval from the laboratory prior to submission to the laboratory for certification. In addition, the manufacturer shall provide a means to extract the program from the progressive controller software. This shall include all hardware and software needed to perform this function.

Internal Link Progressives

3.2.24 Internal Link Master Progressive Controller.

For link progressives where the master progressive controller is part of the game software (internal link):

- a) There shall be a secure method for configuring each game on the link;
- b) Changes to progressive settings shall not be made, unless it involves a secure method;
- c) Each game on the link shall be uniquely identified;
- d) Only one (1) game on the link shall function as the master progressive controller;
- e) If the game configured as a master controller becomes inoperative, all games on the link must tilt;
- f) If any game on the link loses communication with the master controller, that game must tilt; and
- g) The progressive link shall be capable of displaying all progressive parameters (i.e., contribution, reset amount, levels, etc.).

CHAPTER 3 MULTI-SITE PROGRESSIVE GAMING DEVICES

Multi-Site Central Computer Requirements

3.3.1 Security of Central Computer System.

The central computer facility for multi-site progressive gaming devices shall be equipped with an electronic surveillance system.

3.3.2 Communication for Multi-Site Progressive Gaming Devices.

Multi-site progressive gaming device communication shall be a secure non-shared, dedicated line or equivalent. In unusual circumstances, and with prior approval of the State Gaming Agency and Tribal Gaming Office, a shared line of communication may be utilized if appropriate encryption and security is in place to avoid corruption or compromise of data.

3.3.3 Data Collection Requirement.

Multi-site systems shall ensure that security information and the amounts wagered information is communicated at least once every 60 seconds for dedicated lines, and a reasonable amount of time for Radio Frequency, from each participating device to the central computer system.

3.3.4 Multi-Site Encryption Method.

All multi-site systems shall utilize an encryption method that has been certified by a laboratory. Such encryption shall include the use of different encryption keys or seeds so that encryption may be changed in real-time.

3.3.5 Multi-Site Monitoring and Other MCS System Requirements.

The MCS shall monitor the meter readings and error events of each gaming device at all the tribe's gaming facilities, regardless of any outside monitoring system(s). If the MCS utilizes hard disk peripherals, it shall be capable of on-line data redundancy.

3.3.6 Central Computer System Power Supply.

The central computer facility for multi-site progressive gaming devices shall be equipped with non-interruptible power supply that will allow the central computer to conduct an orderly shutdown if the power is lost.

3.3.7 Communication Failure.

Each multi-site progressive gaming device shall disable itself and suspend play if communication is lost between the local site controller and the gaming device. The gaming device may resume play only when communication to the local site controller is restored. If communication is lost between the local site controller and the central computer site, the Tribal Gaming Office shall determine whether to continue play, however, all progressive information from all games connected to the local site controller must be buffered, and once the buffer is full, the local site controller must disable games that are connected to it. Under no circumstances shall play continue for more than twenty-four hours. Once communication is re-established, the system-wide totals shall be updated.

3.3.8 Central Computer System Required Reports.

Each of multi-site progressive gaming device system shall generate the following reports:

- a) progressive summary: a report indicating the amount of, and basis for, the current jackpot amount (the amount currently in play);
- b) aggregate report: a report indicating the balancing of the system with regard to system wide totals; and
- c) payoff report: a report that clearly indicates the method of arriving at the payoff amount. This shall include the credits contributed beginning at the polling cycle, immediately following the previous jackpot and shall include all credits contributed up to and including the polling cycle which includes the jackpot signal.

3.3.9 Multi-Site System Meter Readings.

All meter reading data shall be obtained in real time in an on-line, automated fashion. The multi-site system shall return meter readings on all gaming devices attached to the multi-site system. Each meter reading shall be identical to the meter information retained in the gaming device accounting meters. Manual reading of meter values shall not be substituted for these

requirements. The Credits Bet meter shall accumulate all amounts wagered whether wagered in credit or monetary value.

3.3.10 Multi-Site System Door Monitoring.

The multi-site progressive system shall monitor the main door(s) of the gaming device and report to the central computer system immediately when a main door is opened.

PART IV **THE MCS**

CHAPTER 1 **SYSTEM COMPONENT REQUIREMENTS**

Interface Element Requirements

4.1.1 General Statement.

Each gaming device installed in each gaming facility shall have an interface element installed inside a secure area within the gaming device that provides for communication between the gaming device and the MCS.

- a) To the extent required by Compact Section 3(b)(5), the MCS shall allow real time read only query access from the JMS or, in situations where the read-only query response time is greater than 15 minutes, shall provide for a duplicate database, real time data streaming or other equivalent alternative data transfer means.
- b) To the extent required by Compact Section 3(b)(5), the MCS shall allow the State Gaming Agency and the Tribal Gaming Office to have read-only access to that JMS data as is required under Section 3(b)(5) of the Compact.

4.1.2 Metering Requirements.

All electronic meters shall be capable of being read at the interface element level. If not directly communicating gaming device meters, the interface element must maintain separate electronic meters or meters of sufficient length to preclude loss of information from meter rollovers, and a means to identify multiple rollovers, as provided for in the connected gaming device. These electronic meters shall be capable of being reviewed on demand, at the interface element level, via an access method authorized by the Tribal Gaming Office.

4.1.3 Information Buffering and Comprehensive Checks.

The interface element shall provide a means to preserve all mandatory meter and significant event information until such time as it can be communicated to the MCS. Comprehensive checks of interface element critical memory shall be made during each power resumption (including interface element restart).

- a) Upon resumption, the integrity of all interface element critical memory shall be checked.
- b) Interface element critical memory shall be continuously monitored for corruption or with comprehensive checks occurring at the start of game play.
- c) The control program (software that operates the interface element's functions) shall allow for the interface element to continually ensure the integrity of all control program components residing in non-volatile memory.

4.1.4 Address Requirements.

The interface element shall allow for the association of a unique identification number for each gaming device on the MCS. This identification number shall be used by the MCS to track all mandatory information of the associated gaming device. The MCS shall not allow for duplicate gaming device file entry of this identification number.

Front End Controller and Data Collector Requirements

4.1.5 General Statement.

The MCS may possess a front end processor (FEP) that gathers and relays all data from the connected data collectors to the associated databases(s). The data collectors collect all data from connected gaming devices. Communication between components of the MCS shall, at a minimum, conform to the Communication Protocol requirements of this Appendix, and shall be via a method tested by a laboratory. If the FEP maintains buffered/logged information, a means shall exist to prevent the loss of critical information contained therein.

Server and Database Requirements

4.1.6 General Statement.

The MCS shall possess at least one server, networked system or distributed systems that can direct overall operation and associated databases that store all entered and collected system information. All MCS critical files shall reside on the server, networked system or distributed systems.

4.1.7 System Clock.

The MCS shall maintain an internal clock that reflects the current date and time and provides for the following:

- a) time stamping of significant events;
- b) reference clock for reporting; and
- c) time stamping of configuration changes.

4.1.8 Synchronization Feature.

If multiple clocks are supported, the MCS shall update those clocks in the MCS components where conflicting information occurs.

4.1.9 Database Access.

The MCS shall have no capability whereby a Gaming Facility Operator can bypass system auditing controls and modify the MCS database directly.

Workstation Requirements

4.1.10 Jackpot/Fill Functionality.

Each MCS shall capture and process every hand pay message from each gaming device. Hand pay messages shall be created for:

- a) single wins (jackpots);
- b) progressive jackpots; and
- c) accumulated credit cash outs (canceled credits) that result in hand pays.

4.1.11 Jackpot and Fill Slip Information.

The following information shall be required to be on all slips generated by the MCS whether the information is recorded there by the MCS or manually recorded:

- a) type of slip;
- b) numeric slip identifier (which increments per event);
- c) date and time;
- d) gaming device number;
- e) denomination;
- f) amount of fill (for fill slips);
- g) amounts of jackpot, accumulated credit, and additional pay (for jackpot slips);
- h) W2-G indication, if applicable;
- i) additional payout information, if applicable;
- j) total before taxes and taxes withheld, if applicable;
- k) amount to patron;
- l) total coins played and game outcome of jackpot;
- m) soft meter readings; and

- n) provision for required signatures.

4.1.12 Surveillance/Security Functionality.

The MCS shall provide a query program that enables comprehensive searching of historical data for the previous 14 days through archived data or restoration from backup. The query program shall have the ability to perform on-line comprehensive searching based on at least the following parameters:

- a) date and time range;
- b) unique interface element/gaming device identification number; and
- c) significant event number/identifier.

4.1.13 Gaming Device Management Functionality.

The MCS shall maintain, at a minimum, the following information for each gaming device in operation:

- a) The unique interface element/location identification number;
- b) The gaming device identification number as assigned by the Gaming Facility Operator;
- c) The denomination of the gaming device (the denomination may reflect an alternative value in the case of a multi-denomination game);
- d) The theoretical hold of the gaming device; and
- e) The control programs within the gaming device.

If the MCS retrieves any of this information directly from the gaming device, sufficient controls shall be in place to ensure accuracy of this information.

4.1.14 Accounting Functionality.

The MCS shall allow controlled access to all financial information. This program shall be able to create all reports required by sections 2.2.8, 2.6.36, and 7.2.1, as well as all reports required by internal control standards.

CHAPTER 2 SYSTEM REQUIREMENTS

Communication Protocol

4.2.1 General Statement.

An MCS shall only utilize communication protocols that:

- a) ensure at least an accuracy 99% of all messages received; and
- b) require encryption of all critical data communications that may affect revenue and is unsecured either in transmission or implementation. The encryption algorithm shall employ variable keys or similar methodology to preserve secure communication.

All communication performed within the MCS shall accurately function as indicated by the communication protocol that is implemented.

Significant Events

4.2.2 General Statement.

All significant events generated by each gaming device shall be sent via the interface element to the MCS. All significant events shall be stored in the MCS database, which shall include at least the following:

- a) date and time when the event occurred;
- b) identity of the gaming device that generated the event; and
- c) a unique number/code that defines the event; or
- d) a brief text that describes the event in English.

4.2.3 Standard Events.

Standard events shall be collected from each gaming device and transmitted to the MCS for storage.

4.2.4 Priority Events.

Priority events shall be collected from each gaming device and transmitted to the MCS for storage. The MCS shall provide for timely notification of priority events, which shall be no longer than one hour after the event occurred under normal operation of the MCS.

Meters

4.2.5 Required Meters.

Each gaming device shall transmit to the MCS the data required by this Appendix to be accumulated by required meters in a gaming device, whether that data is transmitted directly or whether only changes in the data are reported. The MCS shall be capable of reporting the information it receives from gaming devices in a manner that may be clearly understood. The MCS shall store financial data transmitted by gaming devices either in units equal to the denomination of the gaming device or in dollars and cents. The MCS shall store other data transmitted by gaming devices in a logical format.

4.2.6 Clearing Meters.

No interface element shall have a mechanism whereby an unauthorized user can cause the loss of stored accounting meter information.

4.2.7 Reporting Requirements.

Significant event and metering information shall be stored on the MCS in a database and accounting reports shall be generated by querying the stored information.

Security Requirements

4.2.8 Access Control.

The MCS shall support either a hierarchical role structure whereby a user and password define the program or individual menu item access or logon program/device security based strictly on the user and the password or Personal Identification Number. There shall be a provision for system administrator notification, user lockout, and audit trail entry, after four unsuccessful login attempts.

4.2.9 Data Alteration.

The MCS shall not permit, without authorized access controls, the alteration of any accounting or event log information that was properly communicated from a gaming device. In the event financial data is changed, an audit log shall be generated, which shall consist of at least the following:

- a) data element altered;
- b) data element value prior to alteration;
- c) data element value after alteration;
- d) time and date of alteration; and
- e) user login.

Additional System Features

4.2.10 Gaming Device Program Verification Requirements.

If the MCS is capable of doing so, it shall verify gaming device software, communications attributes, software signature algorithms and data communications error check algorithms at least monthly and when a user initiates a powering up of a gaming device or the installation of a new gaming device.

Backups and Recovery

4.2.11 General Statement.

There shall be redundant copies of each log file and system database of the MCS with support for backups and restoration.

4.2.12 Recovery Requirements.

In the event of a catastrophic failure and the MCS cannot be restarted in any other way, it shall be possible to reload the MCS from the last viable backup and fully recover the contents of that backup. This MCS reload shall include all necessary information required for full MCS operation consisting of at least the following:

- a) significant events;
- b) accounting information;
- c) auditing information; and
- d) specific gaming facility and gaming floor information (i.e., slot file, employee file, progressive set-up, etc.).

4.2.13 Redundancy and Modularity.

The MCS shall have sufficient redundancy and modularity so that, if any single component of the MCS or part of a component of the MCS fails, gaming can continue.

PART V **FUTURE TECHNOLOGY**

5.1.1 Changes in Technology.

Because the parties recognize the need to address changes in technology, at a minimum, every three (3) years following the effective date of the Compact, the State and Tribe agree to negotiate amendments to this Appendix to accommodate changes in technology, including a schedule for implementation of those changes. The changes to technology may relate to gaming devices and the MCS, including the ability of the MCS to verify electronic signatures of gaming device control programs. Additionally, the State and the Tribe recognize that independent laboratories, such as GLI, promulgate, on a regular basis, standards for gaming devices and the MCS. When new standards are promulgated, the State and the Tribe shall meet to consider accelerating the negotiation of amendments to this Appendix.

5.1.2 Arbitration.

If the State and the Tribe are unable to come to an agreement within one year of negotiations, the State and the Tribe shall submit last best offers to binding arbitration. The State and the Tribe shall collaborate on a joint statement of facts relevant to the issues involved to be submitted to

the arbitrator. If the State and the Tribe are unable to agree, each shall separately submit a statement of facts. In choosing between the last best offers the arbitrator shall choose the offer that best stays within the mainstream of technology and ensures effective regulation and monitoring. The arbitrator shall also consider the following:

- a) current industry standards;
- b) the promotion of, and compatibility with, future technology;
- c) which plan best serves the public;
- d) which plan is most reliable;
- e) which plan is most cost effective;
- f) which plan can be executed in the most expeditious manner, and
- g) capital investments made by the Tribe.

5.1.3 Cost of Limited Upgrade to MCS.

The State agrees to pay from tribal contributions the additional cost, if any, of upgrading the Gaming Facility Operator's MCS to provide electronic signature verification capability, including hardware, software, and installation.

5.1.4 Earlier Agreements Allowed.

Nothing in this Part V prohibits the State and the Tribe from negotiating amendments to this Appendix at an earlier date.

PART VI **METHODS AND PROCEDURES**

CHAPTER 1 **APPROVAL OF GAMING DEVICES,** **COMPONENTS AND SOFTWARE**

6.1.1 Tribal Gaming Office Approval of Receipt.

- a) The Gaming Facility Operator shall obtain approval from the Tribal Gaming Office before receiving any gaming device, gaming device software, kiosk software, or kiosk. Approval shall not be given until a laboratory has determined that a production sample of the gaming device, gaming device software, kiosk software, and/or kiosk complies with all applicable technical standards in the Compact and this Appendix.
- b) The Gaming Facility Operator shall obtain approval from the Tribal Gaming Office before receiving any MCS software, incentive system software, or validation system software, including any service releases, service packs, or patches. Approval shall not be given until a laboratory determines that the MCS

software, incentive system software, or validation system software, or any service release, service pack, or patch, complies with all applicable technical standards in the Compact and this Appendix.

6.1.2 Laboratory Certification.

- a) The Tribal Gaming Office and the State Gaming Agency shall receive from the laboratory a certification letter that contains findings, conclusions and an opinion whether a gaming device, gaming device software, kiosk software, and/or kiosk complies with all applicable technical standards in the Compact and this Appendix. Neither the State nor the Tribe shall be required to pay the cost of laboratory or on-site testing, and the manufacturer and/or distributor shall provide the laboratory all information necessary for the laboratory to render its opinion, including the full manufacturer's engineering change order documentation. The State Gaming Agency reserves the right to require additional testing and to invoke the provisions of Section 6.1.7 if any gaming device is determined to be non-complying with the applicable technical standards in the Compact and this Appendix.
- b) The Tribal Gaming Office and the State Gaming Agency shall receive from the laboratory a certification letter that contains findings, conclusions and an opinion whether any MCS software, incentive system software, or validation system software, or any service release, service pack, or patch, complies with all applicable technical standards in the Compact and this Appendix. Neither the State nor the Tribe shall be required to pay the cost of laboratory or on-site testing, and the manufacturer and/or distributor shall provide the laboratory all information necessary for the laboratory to render its opinion, including the full manufacturer's engineering change order documentation. The State Gaming Agency reserves the right to require additional testing and to invoke the provisions of Section 6.1.8 if any MCS software, incentive system software, or validation system software is determined to be non-complying with the applicable technical standards in the Compact and this Appendix.

6.1.3 Certification of Gaming Devices, Gaming Device Software, and Host System Software.

- a) Certification of gaming devices, gaming device software, kiosk software, and/or kiosks shall occur in two phases:
 - 1) in the laboratory; and
 - 2) on-site by the laboratory if the Tribal Gaming Office, State Gaming Agency or laboratory believes that on-site testing is necessary to ensure compliance with all applicable technical standards in the Compact and this Appendix.
- b) Certification of MCS software, incentive system software, or validation system software, or any service release, service pack, or patch, shall occur in the

laboratory and also on-site by the laboratory if the Tribal Gaming Office, State Gaming Agency or laboratory believes that on-site testing is necessary to ensure compliance with the Compact and its Appendices.

6.1.4 Modifications.

- a) The Gaming Facility Operator shall not modify any previously certified gaming device, gaming device software, kiosk software, or kiosk until a laboratory has certified that the modification complies with all applicable technical standards in the Compact and this Appendix.
- b) The Gaming Facility Operator shall not modify previously certified MCS software, incentive system software, or validation system software, nor install any service release, service pack, or patch that affects MCS critical files, until a laboratory has certified that the modification, or service release, service pack, or patch, complies with all applicable technical standards in the Compact and this Appendix.

6.1.5 Manufacturer's Notifications.

A manufacturer or distributor shall provide the State Gaming Agency at least five (5) days advance notice of any shipment or delivery for any gaming facility in the State of a gaming device, gaming device software, host system software, kiosk software, or kiosk (Tribal Gaming Office notification requirements may differ). The State Gaming Agency may sanction a vendor or deny or revoke vendor certification if a manufacturer or distributor:

- a) fails to provide the State Gaming Agency five (5) days advance notice of any shipment for any gaming facility in the State of a gaming device, gaming device software, host system software, kiosk software, or kiosk (Tribal Gaming Office notification requirements may differ);
- b) sells, or provides for play or any other gaming purpose, gaming devices, gaming device software, host system software, kiosk software, or kiosk to a Gaming Facility Operator:
 - 1) prior to laboratory certification; or
 - 2) that it knows, or reasonably should know, will malfunction in any manner that affects game play, the accuracy of meters, or the accuracy of host system reports; or
- c) fails to immediately notify the State Gaming Agency in writing of the discovery of any probable malfunction that affects game play, the accuracy of meters, gaming device software, host system software, the accuracy of host system reports, kiosk functionality, or kiosk software.

Non-Complying Gaming Devices

6.1.6 General Statement.

The following are declared to be non-complying gaming devices or kiosks unless remedied pursuant to section 6.1.7:

- a) all gaming devices or kiosks operated in violation of the Compact or its appendices;
- b) all gaming devices or kiosks to which the State Gaming Agency has been denied access for inspection purposes;
- c) all gaming devices or kiosks not reported as required by this Appendix;
- d) all gaming devices or kiosks in operation that do not report to the host system as required by this Appendix;
- e) all gaming devices or kiosks shown by history or operation or notice from a laboratory or manufacturer to be susceptible to cheating;
- f) a gaming device or kiosk that remains in operation without a software upgrade or replacement for a period of more than ninety (90) days after the manufacturer has notified the Tribe of a problem with the gaming device's or kiosk's software, where the problem is such that the software does not comply with this Appendix; or
- g) a gaming device or kiosk that remains in operation without a software upgrade or replacement, after notice to the Tribe, for a period longer than recommended by a laboratory after the laboratory has revoked its certification of the gaming device's or kiosk's software.

6.1.7 Remedies for Non-Complying Gaming Devices.

If the State Gaming Agency contends that any gaming device or kiosk fails to comply with the applicable technical standards in the Compact or this Appendix, the State Gaming Agency shall provide written notice to the Tribal Gaming Office setting forth the basis for its contention. If the Tribal Gaming Office agrees with the allegation of non-compliance, then, within 24 hours after receiving such a written notice, the Tribal Gaming Office shall require the Gaming Facility Operator to remove the gaming device from play or the kiosk from use and to take appropriate action to ensure that the manufacturer, distributor or other responsible person cures the problem. If the Tribal Gaming Office disagrees with the allegation of non-compliance, then, within 24 hours after receiving such a written notice, the Tribal Gaming Office shall require the Gaming Facility Operator to remove the contested gaming device(s) from play or kiosk(s) from use and shall arrange for the prompt inspection of the gaming device(s) or kiosk(s) (or a single example thereof) by a laboratory. If the laboratory finds that the gaming device(s) or kiosk(s) do not comply with the applicable technical standards in the Compact or this Appendix, the non-compliant gaming device(s) shall not be returned to play, and the non-compliant kiosk(s) shall not be returned to use, until they have been modified to comply with the applicable technical standards in the Compact and this Appendix. If the laboratory finds that the gaming device(s) or kiosk(s) comply with the applicable technical standards in the Compact and this Appendix, the Tribal Gaming Office and State Gaming Agency will conduct any inspections and testing they deem necessary and confer regarding the gaming device(s) or kiosk(s) within forty-eight (48)

hours of receiving the laboratory's findings or as otherwise agreed upon by the Tribal Gaming Office and State Gaming Agency. Gaming devices removed from play under this section may be returned to play, and kiosks removed from use under this section may be returned to use, once the Tribal Gaming Office and the State Gaming Agency agree that they meet the applicable technical standards in the Compact and this Appendix.

6.1.8 Remedies for a Non-Complying Host System.

If the State Gaming Agency contends that any MCS software, incentive system software, or validation system software fails to comply with the applicable technical standards in the Compact or this Appendix, the State Gaming Agency shall provide written notice to the Tribal Gaming Office setting forth the basis for its determination. Within 24 hours after receiving such a written notice, the Tribal Gaming Office shall require the Gaming Facility Operator to develop and implement procedures, within 24 hours, to mitigate against loss of any information communicated to or from the host system. Within 72 hours of delivery of the State Gaming Agency's notice, a laboratory arranged by the Tribal Gaming Office shall have begun inspecting the contested software. If the laboratory determines that the contested software does not comply with the applicable technical standards in the Compact or this Appendix, the Gaming Facility Operator shall have 72 hours within which to bring the contested software into compliance with the applicable technical standards in the Compact and this Appendix unless this is not reasonably possible despite diligent efforts, in which case the software can be continued in use and it will be brought into compliance as quickly as possible thereafter. If the laboratory finds that the contested software complies with the applicable technical standards in the Compact and this Appendix, the software may be continued in use.

6.1.9 Tribal Gaming Office Authority Regarding Non-complying Gaming Devices.

The Tribe shall authorize the Tribal Gaming Office to:

- a) disable, or require to be removed from use, any gaming device or kiosk shown by history or operation or notice from a laboratory or manufacturer to be susceptible to cheating or otherwise out of compliance with the Compact or this Appendix; and
- b) require the manufacturers and Gaming Facility Operator to take whatever actions are necessary to ensure that gaming devices and kiosks are not susceptible to cheating methods and comply with all applicable technical standards in the Compact and its appendices.

6.1.10 Requirement to Provide Schematics, Manuals, Components, and Gaming Devices.

Upon request, the manufacturer or distributor of class III gaming devices shall provide the State Gaming Agency with schematics, manuals, gaming device components, software, and production gaming device(s) for research and diagnostic purposes. The State Gaming Agency shall not be

required to pay any costs pursuant to this Section. This paragraph imposes no obligations upon the Tribe or the Gaming Facility Operator.

CHAPTER 2 HARDWARE

6.2.1 General Statement.

All hardware that controls game play or game outcome shall be delivered to and controlled by the Tribal Gaming Office unless otherwise designated by the Tribal Gaming Office. The Tribal Gaming Office shall notify the State Gaming Agency of all hardware delivered to any place other than the Tribal Gaming Office.

Hardware Requirements

6.2.2 Cabinet Wiring.

Upon request the manufacturer shall supply the Tribal Gaming Office and the State Gaming Agency with schematics and manuals which together show all cable routing and connections.

Program Memory, RAM and Non-Volatile Devices Used to Store Program Memory

6.2.3 Requirements for Downloading Gaming Device Software.

All information concerning downloading gaming device or kiosk software shall be forwarded to the Tribal Gaming Office which shall forward the information to the State Gaming Agency prior to the downloading process. The method of downloading gaming device or kiosk software shall be consistent with the manufacturer guidelines. All downloading of gaming device or kiosk software shall take place in the presence of Tribal Gaming Office personnel. The Tribal Gaming Office and State Gaming Agency shall approve the method of downloading software. The State Gaming Agency shall not unreasonably withhold approval.

Contents of Critical Memory Unrecoverable Critical Memory

6.2.4 General Statement.

An unrecoverable corruption of RAM shall result in a RAM error. Clearing the RAM error shall require a full RAM clear performed by a representative of the Gaming Facility Operator and require the presence of a Tribal Gaming Office representative. Electro-mechanical and electronic meter readings shall be manually recorded prior to clearing RAM on each gaming device. Documentation shall be forwarded to the Tribal Gaming Office and the accounting department.

Mechanical Gaming Device Components Used for Displaying of Game Outcomes; Credit Redemption

6.2.5 Cancel Credit.

If credits are collected, and the total credit value is greater than or equal to the hopper limit for hopper games or printer limit for printer games, the gaming device shall lock up until the credits have been paid, and the handpay is cleared by an attendant.

Printers

6.2.6 Payment By Ticket Printers.

Each gaming device that has a printer used to make payments may pay the patron by issuing a printed ticket. If the taxation threshold is reached on any single play when using a ticket printer, then the ticket shall not be able to be redeemed at any place other than through human interaction (not on another machine or at a self-service kiosk).

6.2.7 Tickets.

A system shall be used to validate the ticket, and the MCS shall retain ticket information at least as long as the ticket is valid at that gaming facility.

6.2.8 Access Logs.

A machine entry access log shall be completed for each gaming device. No entry in the access log is required when removing the bill staker from a gaming device during normal drop procedures, when approved by the Tribal Gaming Office.

- a) Upon agreement of the Tribal Gaming Office and the State Gaming Agency, an access log may be in written or electronic form. Regardless of whether it is in written or electronic form, the log shall be maintained pursuant to Compact Section 7(c) and shall contain the following:
 - 1) the date of access;
 - 2) the time of access;
 - 3) the name or employee identification number of the person accessing the gaming device; and
 - 4) the written reason or the electronic code for the reason for access.
- b) Where the access log is in electronic form, each person accessing the gaming device must have an assigned, unique access card or PIN and must use that card or PIN when accessing the gaming device.

- c) Written access logs shall be stored inside each gaming device, shall be completed by the person opening the gaming device, and shall also contain the signature or initials of the person accessing the gaming device.

CHAPTER 3 VALIDATION SYSTEMS

6.3.1 Payment by Ticket Printer.

Payment by ticket printer as a method of credit redemption on a gaming device is only permissible when the gaming device is linked to a validation system, whether that validation system is part of a MCS that allows validation of the printed ticket, or a validation system certified by a laboratory as conforming to all applicable technical standards in the Compact and this Appendix. Validation information shall come from the validation system using a secure communication protocol.

Ticket Issuance

6.3.2 Ticket Information Used by the Gaming Device While Communicating with a Validation System.

The validation system shall communicate the following ticket data to the gaming device:

- a) gaming facility or site identifier;
- b) indication of an expiration period from date of issuance, or date and time the ticket will expire in current 24 hour format, which shall be no less than 60 days from date of issue;
- c) system date and time in current 24 hour format; and
- d) ticket validation number or the seeds for the gaming device to generate the validation number.

6.3.3 Algorithm or Method for Generating Ticket Validation Numbers or Seeds.

- a) Where the validation system generates the ticket validation number, the algorithm or method used by the validation system to generate the ticket validation number shall guarantee an insignificant percentage of duplicative validation numbers.
- b) Where the gaming device utilizes a seed from the validation system to generate a ticket validation number, the validation system shall send a unique seed to the gaming device upon enrolling the gaming device as ticket printing capable. The validation system shall subsequently send a new seed to the gaming device after the gaming device prints each ticket. The algorithm or method used to determine the seed shall guarantee an insignificant percentage of repetitive ticket validation numbers.

6.3.4 System Ticket Records.

- a) The validation system shall retrieve accurate ticket information using a secure communication protocol, and shall store ticket information in a database.
- b) The ticket record on the validation system shall contain, at a minimum, the following ticket information:
 - 1) validation number;
 - 2) date and time the gaming device printed the ticket in current 24 hour format;
 - 3) type of transaction or other method of differentiating ticket types;
 - 4) numeric value of ticket in dollars and cents;
 - 5) status of ticket (i.e., valid, unredeemed, pending, void, invalid, redemption in progress, redeemed, etc.);
 - 6) date and time ticket will expire in current 24 hour format; and
 - 7) gaming device number or cashier/change booth/kiosk location number, if the ticket was created outside the gaming device, that identifies where the ticket was issued.

6.3.5 Ticket Printing During Loss of Communication with Validation System.

Unless offline ticketing is supported, when there is a loss of communication between a gaming device and the validation system, the gaming device shall not issue any further tickets. However, the gaming device may issue a maximum of up to two (2) tickets directly after a loss of communication in cases where the gaming device has already received a seed from the validation system, provided that the ticket issuance information is sent immediately to the validation system when communication is reestablished.

Ticket Redemption

6.3.6 Online Ticket Redemption.

A ticket may be redeemed at a gaming device, cashier/change booth, kiosk or other approved validation terminal so long as the gaming device, cashier/change booth, kiosk or other approved validation terminal is enrolled for ticket validation with a validation system.

- a) The validation system shall accurately process ticket redemptions using a secure communication protocol.
- b) The validation system shall update the ticket status on the database during each phase of the redemption process. Upon each status change, the database shall indicate the following information:
 - 1) date and time of status change in current 24 hour format;
 - 2) ticket status;
 - 3) ticket value;

- 4) identifier (e.g., gaming device number) for the source of the ticket information.

6.3.7 Cashier/Change Booth Operation.

Each cashier/change booth validation terminal user shall have a unique password and all passwords shall be changed at least quarterly with the changes documented.

6.3.8 Ticket Redemption During Communication Loss.

Unless offline ticketing is supported, if the gaming device communication system temporarily fails and validation information cannot be sent to the validation system or MCS, an alternate method of payment shall be provided either by the validation system possessing unique features, (e.g., validity checking of ticket information in conjunction with a local database storage), to identify duplicate tickets and prevent fraud by reprinting and redeeming a ticket that was previously issued by a gaming device; or use of an approved alternative method as approved by the Tribal Gaming Office and State Gaming Agency

6.3.9 Algorithm or Method for Generating Offline Ticket Authentication Identifiers.

If supported, the offline authentication identifier shall be of a unique value that is derived by a HASH or other secure encryption method of at least 128 bits, and shall, uniquely identify the wager instrument, verify that the redeeming system was also the issuing system, and validate the amount of the ticket. The following minimum set of inputs shall be used to create the authentication identifier:

- a) Gaming device identifier;
- b) Validation number;
- c) Ticket amount; and
- d) Secure seed, key, etc. provided by the validation system to the gaming device;
 - 1) Secure seeds, keys, etc. as assigned shall be sufficiently random.
 - 2) The minimum length for any secure seeds, keys, etc. employed by the validation system shall be chosen from a pool of the variable type specified by the communication protocol utilized. The pool must be comprised of at least 10 to the power of 14 randomly distributed values.

6.3.10 Interface Element Requirements for Offline Ticketing Support.

If an approved offline ticketing routine is supported, the following set of minimum requirements shall be met for an interface element to be capable of providing validation information to a gaming device for the issuance of offline tickets after a loss of communication to the validation system has been identified:

- a) The interface element shall be capable of communicating to the game that offline ticket issuance is supported and allow the game to negotiate non-support of this feature.
- b) The interface element shall meet the manual authentication ID requirements of section 6.3.9.
- c) The interface element shall limit the number of provided validation numbers and seed, key, etc. values used for the issuance of offline tickets to a maximum of 25 unused pairs.
- d) The interface element shall not provide to a gaming device more than 25 validation number and seed, key, etc. values allowed for the issuance of offline tickets until all outstanding ticket information has been fully communicated to the validation system.
- e) The interface element shall set a maximum expiration length of no more than 30 gaming days for all provided and still unused validation numbers and seed, key, etc. values.
- f) Expired validation numbers and seed, key, etc. values shall be discarded in a way that prevents the re-use of unique combinations of validation numbers and seed, key, etc. values for a sufficient period of time on the system.

6.3.11 System Requirements for Offline Ticketing Support.

If an approved offline ticketing routine is supported, the following is required:

- a) Support the identification and redemption of offline tickets through a system provided application.
- b) Log all access and operations of users of the application for at least 14 days through archived date or restoration from backup where maintaining such data on a live database is deemed inappropriate.
- c) The validation system must set a maximum expiration length of no more than 30 gaming days for all provided and still unused validation numbers and seed, key, etc. values for a sufficient period of time on the system.
- d) Expired validation numbers and seed, key, etc. values must be discarded in a way that prevents the re-use of unique combinations of validation numbers and seed, key, etc. values for a sufficient period of time on the system.

6.3.12 Offline Ticket Redemption.

If supported, offline tickets may be redeemed at a Cashier/Change booth provided they are enrolled for ticket validation with a validation system.

- a) The validation system at a minimum must support the identification and redemption of offline tickets through a system provided application;
- b) The validation system must process offline ticket redemption correctly according to the secure communication protocol implemented;

- c) The validation system must update the ticket status on the database during each phase of the redemption process accordingly, i.e., whenever the ticket status changes, the system must update the database. Upon each status change, the database must indicate the following information:
- 1) Date and time of status change;
 - 2) Ticket status;
 - 3) Ticket value; and
 - 4) Identifier (e.g. gaming device number) for the source of the ticket information.

CHAPTER 4 SOFTWARE

6.4.1 Introduction.

All gaming device software, kiosk software, and host system software shall be directly shipped or delivered to the Tribal Gaming Office, unless otherwise designated by the Tribal Gaming Office. The Tribal Gaming Office shall notify the State Gaming Agency of all software shipped or delivered to any place other than the Tribal Gaming Office.

6.4.2 Par Sheet.

A copy of the manufacturer's par sheet for the current configuration shall be maintained inside each gaming device or at a location mutually agreed upon by the Tribal Gaming Office and the State Gaming Agency. The par sheet provided by the manufacturer shall list all the possible pay combinations (paytable), and accurately reflect the current configurations and symbols for the gaming device in play. The theoretical hold percentage for each gaming device recorded in the MCS gaming device file shall be the same as that configured at the gaming device (allowing for rounding, as applicable), and shall be within the performance standards on the manufacturer's par sheet, except as provided in Appendix H 542.13(h)(2)-(7).

Communications Protocol

6.4.3 General Statement.

A gaming device shall be turned off no later than 24 hours after communication between the gaming device and the MCS has been lost. The gaming device may only be turned back on when communication to the MCS has been restored and verified. All verification results shall be forwarded to the Tribal Gaming Office and the State Gaming Agency.

CHAPTER 5 SLOT TOURNAMENTS

6.5.1 Number of Gaming Devices during Slot Tournaments.

The number of gaming devices used specifically for Slot Tournaments will be counted towards the amount of devices per facility as provided for in the Compact. If the facility is at the maximum number of authorized gaming devices, the same amount of gaming devices that are to be used in the Slot Tournament will be turned off on the gaming floor until such time that the tournament is completed. The correct number of gaming devices will be verified by the Tribal Gaming Office to ensure compliance with Section 3(c) of the Compact.

6.5.2 Gaming Device Tournament Software.

Slot tournament play on gaming devices shall be enabled by a method approved by the Tribal Gaming Office. The Tribal Gaming Office shall inspect and approve all modified or converted gaming devices used in slot tournament play for compliance with the standards set forth in this Appendix and the Compact prior to being returned to use for normal non-tournament play. All slot tournament software and hardware shall be tested and approved by the laboratory prior to use.

6.5.3 Tournament Rules.

The rules for conduct of each tournament shall be reduced to writing and shall be:

- a) Provided to the Tribal Gaming Office at least 14 days prior to the tournament; and
- b) Provided to the State Gaming Agency at least fourteen (14) days prior to the scheduled start of each tournament with a list of gaming devices to be used in the slot tournament, as well as a list of any non-tournament gaming devices to be turned off during the tournament. The list of gaming devices to be used in the tournament shall include the following information, as applicable:
 - 1) Gaming device manufacturer;
 - 2) Gaming device serial number;
 - 3) Gaming facility number;
 - 4) Slot tournament program name;
 - 5) Slot tournament program number;
 - 6) Slot tournament program signature; and
 - 7) Gaming laboratory slot tournament program type.

Before and during a tournament, the Gaming Facility Operator shall conspicuously post in the slot tournament area a notice of the availability of the rules for the slot tournament. The Gaming Facility Operator shall make those rules available to all patrons upon request.

6.5.4 Content of Rules.

The rules shall include but are not limited to:

- a) Qualification or selection criteria which limit the eligibility of tournament patrons.
- b) Regulations of the tournament (i.e., beginning and ending times, number of rounds, lapse of rounds, entry fee, elimination factors, cash handling procedures, etc.)
- c) Procedures for handling gaming device malfunctions during play.
- d) Procedures for handling a tie at the conclusion of tournament play.
- e) Prizes to be awarded and a description of each prize.
- f) Procedures for the use of stand-by tournament gaming devices in the event of a machine malfunction.
- g) A requirement that any patron dispute involving the Gaming Facility Operator's refusal to pay alleged winnings shall be subject to the provisions of Section 14 of the Compact.

6.5.5 Surveillance.

Surveillance coverage of tournament activity shall include unobstructed views of all tournament gaming devices and participants during tournament play.

CHAPTER 6 INSPECTION, INSTALLATION, AND MODIFICATION

6.6.1 Tribal Gaming Office Inspections of Gaming Devices.

Unless otherwise agreed to by the Tribal Gaming Office and the State Gaming Agency, the Tribal Gaming Office shall conduct monthly inspections of no less than a random 5% sample of the gaming facility's gaming devices or 25 randomly selected gaming devices in use for play at each of the Tribe's Gaming Facilities. Unless the Tribal Gaming Office discovers one or more Compact violations while conducting its inspections and testing, which shall be reported to the State Gaming Agency within 48 hours pursuant to Section 6(g) of the Compact, the Tribal Gaming Office shall provide the Gaming Facility Operator and the State Gaming Agency a written report detailing when and where the inspections and testing took place, what gaming devices were inspected and tested, and the complete results of the inspections and testing within 10 days of completing any inspections and testing. The Tribal Gaming Office shall adhere to the procedures in this chapter conducting its inspections and testing.

6.6.2 State Gaming Agency Inspections of Approved Gaming Devices.

The State Gaming Agency may conduct inspections and testing of up to 50 randomly chosen gaming devices in use for play in each of the Tribe's Gaming Facilities up to five (5) times per year. The State Gaming Agency shall conduct inspections and testing in the following manner:

- a) The State Gaming Agency shall provide notice of its intent to inspect and test gaming devices to the Tribal Gaming Office at the time they arrive at the gaming

facility. The State Gaming Agency may observe the gaming devices it plans to inspect and test while the Tribal Gaming Office assembles the personnel necessary to accompany them.

- b) At least one Tribal Gaming Office inspector and one gaming operation slot technician shall accompany the State Gaming Agency during inspections and testing but shall not impede or compromise these activities. The Tribal Gaming Office inspector shall have the ability to immediately access all non-public areas and gaming devices.
- c) The Tribal Gaming Office and the Gaming Facility Operator shall have a reasonable amount of time to assemble those personnel necessary or requested by the State Gaming Agency to accompany the State Gaming Agency during gaming device inspections and testing.
- d) Once the Tribal Gaming Office has assembled the necessary personnel, the State Gaming Agency may begin inspecting and testing gaming devices.
- e) If there is a delay in assembling necessary personnel or if some other problem arises with respect to the inspection and testing of gaming devices, the Tribal Gaming Office, Gaming Facility Operator, and the State Gaming Agency shall, in a good faith, attempt to resolve any problems. If a dispute arises which cannot be resolved, the Tribe and the State may avail themselves of such remedies as are provided for under the Compact.
- f) The State Gaming Agency shall conduct inspections and testing in accordance with the gaming device inspection and testing procedures in this chapter.
- g) The State Gaming Agency shall not unduly interfere with the Gaming Operation while observing, inspecting, or testing gaming devices.

6.6.3 Additional Inspections of Approved Gaming Devices.

The Tribal Gaming Office may conduct gaming device and kiosk inspections and testing in addition to those provided in this chapter to the extent it deems appropriate. The State Gaming Agency may conduct gaming device inspections and testing in addition to those provided for in this chapter in the event that:

- a) it has determined that within the previous six months one or more gaming devices were not operating in compliance with the Compact;
- b) it observes gaming devices operating out of compliance with the Compact or receives credible information from any source that one or more gaming devices are or may be currently operating out of compliance with the Compact;
- c) it receives a request for additional inspections and testing from the Tribal Gaming Office; or
- d) it gives the Tribal Gaming Office two hours advance notice of the inspections and testing.

In conducting such inspections and testing, the State Gaming Agency shall not unduly interfere with the Gaming Operation while observing, inspecting, or testing gaming devices.

6.6.4 Remedies for Discovery of Non-complying Gaming Devices.

If the State Gaming Agency determines that a gaming device on the gaming floor and in play is not in material compliance with the requirements of the Compact or its Appendices, the State Gaming Agency may require that for one year the Gaming Facility receive approval prior to use for play from the State Gaming Agency before using or continuing to use any gaming devices for play. If the State Gaming Agency requires preapproval, the schedule prescribed in this chapter for inspection and testing shall not apply, but, rather, a reasonable schedule which accommodates both the State Gaming Agency and the Tribal Gaming Office shall apply. The State Gaming Agency may also require that any or all of the notices required in this chapter be given to the State Gaming Agency. The State Gaming Agency shall grant pre-approval if the gaming devices meet the requirements of the Compact and its Appendices and required notices are given. If the State Gaming Agency determines that each gaming device has been in material compliance with the Compact or its appendices for a full year, the requirement of State Gaming Agency pre-approval shall be removed but may be imposed again if material non-compliance is determined to again exist.

6.6.5 Gaming Device Inspections and Tests.

Inspections and tests of the installation, and modification, of gaming devices, gaming device software, kiosk software and kiosks shall be conducted to determine compliance with the Compact and its Appendices. These inspections and tests shall include, but need not be limited to:

- a) verifying gaming device or kiosk number, gaming device or kiosk serial number, gaming device or kiosk State number, type and name of game, and denomination of each game;
- b) inspecting access logs, as applicable;
- c) reviewing and photocopying pertinent host system reports;
- d) verifying logic board and/or logic area physical security, as applicable;
- e) verifying that all software and hardware in the gaming device or kiosk has been certified by a laboratory and has received final approval by the Tribal Gaming Office and the State Gaming Agency. Security tape or other tamper proof security devices shall be affixed to all Program Storage Devices or logic area doors, as applicable, by the Tribal Gaming Office or the State Gaming Agency. The gaming control device or software shall be tested by the following if security tape is broken or not present:
 - 1) gaming laboratory approval list; and
 - 2) Kobetron test or other approved method of testing.
- f) verifying gaming device software corresponds with game type;
- g) conducting gaming device payable tests (where feasible) and review par sheets to determine proper configuration and operation;

- h) conducting tests confirming that gaming device and kiosk functions and items of monetary value are being reported to the host system;
- i) conducting gaming device door tests to verify door openings are being reported to the host system;
- j) verifying all gaming device parameters coincide with the host system and par sheets;
- k) inspecting to ensure that all gaming devices and kiosks are installed according to the recommendations of the manufacturer and per all applicable installation and safety codes;
- l) conducting communication audit tests; and
- m) inspecting progressive controller access logs, if applicable.

The State Gaming Agency shall not operate a testing laboratory for the purpose of certifying gaming device design; provided, however, that this prohibition shall not be interpreted to diminish the current practice of the State Gaming Agency with respect to gaming device inspections and testing.

6.6.6 Progressive Gaming Device Inspections.

All inspection, installation, and modification procedures shall apply to progressive gaming devices.

6.6.7 Host System Inspections.

The Tribal Gaming Office and the State Gaming Agency shall conduct random inspections of host systems at least once annually to verify that the host system critical files have been approved by a laboratory for the current versions of the installed software.

CHAPTER 7 PROGRESSIVE GAMING DEVICES

6.7.1 Changes to the Jackpot Amount.

- a) The Gaming Facility Operator shall not reduce the amount displayed on a progressive jackpot meter or otherwise reduce or eliminate a progressive jackpot unless:
 - 1) a patron wins the progressive jackpot;
 - 2) the gaming facility adjusts the progressive jackpot meter to correct a malfunction or to prevent the display of an amount greater than the limit imposed, and the gaming facility documents the adjustment and the reasons for it as follows:
 - A. the gaming facility documents the distribution;
 - B. any progressive jackpot offering where the gaming facility distributes the incremental amount does not require that more

- money be played on a single play to win the progressive jackpot than the gaming device from which the incremental amount is distributed;
- C. any progressive jackpot offering which the incremental amount is distributed complies with the minimum theoretical payout requirement; and
 - D. the distribution is completed within thirty (30) days after the progressive jackpot is removed from play; and
- 3) upon presentation of circumstances to the State Gaming Agency, and by mutual agreement with the Tribal Gaming Office, the gaming facility may reduce, eliminate, transfer, distribute, or follow a procedure not otherwise described in this subsection.
- b) Progressive controllers may transfer a progressive jackpot and/or prize to another controller or other approved progressive system component only through the use of a secure means.

6.7.2 Jackpot Limits.

The Gaming Facility Operator shall post a conspicuous notice of the jackpot limit at or near the gaming device or gaming devices to which the limit applies.

Progressive Jackpots

6.7.3 Progressive Gaming Device Metering Requirements.

Progressive jackpots requiring the issuance of a W2-G form or equivalent shall require a manual handpay by an attendant.

6.7.4 Base Amount.

The base amount of each progressive jackpot offered at the gaming facility shall be documented and maintained by the Tribal Gaming Office and the accounting department.

CHAPTER 8 MULTI-SITE PROGRESSIVE GAMING DEVICES

Multi-Site Central Computer Requirements

6.8.1 Jackpot Win During Poll Cycle.

If a jackpot is recognized in the middle of a system-wide poll cycle, the overhead display may contain a value less than the aggregated jackpot amount calculated by the central computer system. The credit values from the remaining portion of the poll cycle shall be received by the

central computer system but not the gaming facility in which case the jackpot amount paid shall always be the higher of the two reporting amounts.

Multi-Site Progressive Procedures

6.8.2 General Statement.

Procedures shall be developed, implemented and documented for the following:

- a) reconciliation of meters and jackpot payouts;
- b) collection drop of gaming device funds;
- c) jackpot verification and payment procedures, which shall include a requirement that a Tribal Gaming Office representative be present for independent jackpot verification and payment;
- d) system maintenance;
- e) system accuracy;
- f) system security; and
- g) system failures including:
 - 1) the gaming facility;
 - 2) the central computer site;
 - 3) failures in communications; and
 - 4) backup and recovery.

Multi-Site Jackpots

6.8.3 Multiple Jackpots During the Same Polling Cycle.

If multiple jackpots occur and there is no definitive way of knowing which jackpot occurred first, the jackpots will be deemed to have occurred simultaneously and, therefore, each shall be paid at full value.

PART VII **METHODS AND PROCEDURES FOR THE HOST SYSTEM**

CHAPTER 1 **HOST SYSTEM COMPONENT REQUIREMENTS**

Interface Element Requirements

7.1.1 Information Buffering and Integrity Checking.

If unable to communicate the required information to the host system, 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 host system. Gaming device operation may continue until

critical data will be overwritten and lost. There must be a method to check for corruption of the above data storage locations.

7.1.2 Configuration Access Requirements.

The interface element setup/configuration menu shall only be available via a secure access method as authorized by the Tribal Gaming Office.

7.1.3 Database Access.

The Gaming Facility Operator shall maintain secure access control to the host system databases at all times.

CHAPTER 2 SYSTEM REQUIREMENTS

Reporting Requirements

7.2.1 Required Reports.

The host system shall be capable of producing, at the end of the gaming day, reports for each gaming device by denomination and in total on a day, month, year-to-date and life-to-date cumulative basis. These reports shall at a minimum meet internal control requirements and consist of at least the following:

- a) net win/revenue report for each gaming device;
- b) monthly and year-to-date gaming device revenue summary;
- c) drop comparison reports for each item dropped (all coins, bills tickets and coupons) with dollar and percent variances for each item and the aggregate variance for each type of item;
- d) metered vs. actual jackpot comparison report with dollar and percent variances for each jackpot and the aggregate variance for all jackpots;
- e) theoretical hold vs. actual hold comparison with variances; and
- f) significant event log for each gaming device.

Security Requirements

7.2.2 Access Control.

Each host system user shall have a unique password and all passwords shall be changed at least quarterly with the changes documented.

Additional System Features

7.2.3 FLASH Download Requirements.

The host system may utilize FLASH technology to update interface element software when all of the following requirements are met:

- a) download functionality is password protected at no lower than the supervisor level, and each user shall have a unique password and all passwords shall be changed at least quarterly with the changes documented;
- b) a separate non-alterable audit log is used to record the time and date of a download including the version of code downloaded and the user who initiated the download;
- c) all modifications to the download executable and FLASH files receive certification from a laboratory that the modifications comply with all applicable standards in the Compact and this Appendix. The laboratory shall perform a FLASH download to the system at the laboratory and shall verify its operation. The laboratory shall then assign verification algorithms to any relevant executable code and FLASH files that can be verified by the State Gaming Agency and the Tribal Gaming Office. All FLASH files shall be available to the State Gaming Agency and the Tribal Gaming Office for verification;
- d) the State Gaming Agency receives assurance from the manufacturer that the FLASH download process works properly; and
- e) The FLASH download process authenticates the downloaded files to ensure that the transfers were successful.

7.2.4 Remote Access Requirements.

The host system may utilize password controlled remote access only when all the following requirements are met:

- a) each remote host system user has a unique password and all passwords are changed at least quarterly with the changes documented;
- b) a remote access user activity log is maintained at the gaming facility and, if applicable, at the manufacturer's facility, with each log containing logon name, time, date, duration, and activity while logged in;
- c) there is no remote user administration;
- d) there is no access to the database other than information retrieval using existing functions;
- e) there is no unauthorized access to the operating system; and
- f) if remote access is continuous, a network filter is installed to protect host system access.

7.2.5 Verification of System Software.

The Gaming Facility Operator when requested shall provide to the Tribal Gaming Office and/or the State Gaming Agency the Program ID and Version of host system software components/modules and the size of any host system software component/module files identified by the Tribal Gaming Office or State Gaming Agency. System software components/modules shall be verifiable by a secure means at the system level. The system shall have the ability to allow for an independent integrity check of the components/modules from an outside source and is required for all control programs that may affect the integrity of the system. This can be accomplished by being authenticated by a third-party device, which may be embedded within the system software or having an interface port for a third-party device to authenticate the media. The integrity check shall provide a means for field verification of the system components/modules to identify and validate the programs/files. The integrity check methodology must be approved by the independent test laboratory.

PART VIII **STANDARDS AND INSPECTIONS**

8.1.1 Minimum Standards.

- a) Subject to the provisions of Part I, Chapter 2, each gaming device shall comply with the applicable technical standards for gaming devices in this Appendix A, except that only those gaming devices participating in incentive transactions need comply with the requirements of Part II, Chapter 6, of this Appendix, and only those gaming devices issuing or redeeming tickets or coupons need comply with the requirements of Part II, Chapter 2, of this Appendix A.
- b) Each host system shall comply with the technical standards for host systems in this Appendix A, except that only a host system using a validation system need comply with the technical standards for validation systems in this Appendix A and only a host system using an incentive system need comply with the technical standards for incentive systems in this Appendix A.

8.1.2 Notice of Installation or Modification to the Tribal Gaming Office.

- a) The Gaming Facility Operator shall notify the Tribal Gaming Office in writing if it intends to install a gaming device or kiosk, to re-install a gaming device or kiosk that has been removed from the gaming floor, or to modify a gaming device or kiosk, before the newly installed, re-installed, or modified gaming device or kiosk is scheduled to be placed into use or play. The notice shall identify the gaming device or kiosk, when and where the Gaming Facility Operator would like to place it into use or play, and the type of installation or modification. The notice shall also be sufficiently detailed and provided in time to allow the Tribal Gaming Office to schedule employees to inspect and test the gaming device or kiosk before it is scheduled to be placed into use or play, and to timely provide required notices to the State Gaming Agency.

- b) The Gaming Facility Operator shall notify the Tribal Gaming Office in writing that it intends to install or modify a host system before the date the new or modified host system is scheduled to be placed into use. The notice shall identify the host system, when and where the Gaming Facility Operator would like to place it into use, and the type of installation or modification. The notice shall also be sufficiently detailed and provided in time to allow the Tribal Gaming Office to schedule employees to inspect and test the new or modified host system before it is scheduled to be placed into use and to timely provide required notices to the State Gaming Agency.

8.1.3 Notice of Installation or Modification to the State Gaming Agency.

- a) The Tribal Gaming Office shall notify the State Gaming Agency in writing of the tentative date when the Gaming Facility Operator intends to place into use or play a newly installed, re-installed, or modified gaming device or kiosk, to allow the State Gaming Agency to coordinate inspection and testing. Unless the State Gaming Agency and the Tribal Gaming Office agree otherwise, the Tribal Gaming Office shall provide the written notice at least thirty (30) days before the date the gaming device or kiosk is scheduled to be placed into use or play. Thereafter, the Tribal Gaming Office shall provide the State Gaming Agency at least five (5) days advance written notice of a firm date and a time for inspection and testing of the gaming device or kiosk. If the State Gaming Agency arrives at a firm date and time and the gaming device or kiosk is not ready for inspection and testing, the Tribal Gaming Office shall provide another firm date and time to the State Gaming Agency at least five (5) days in the future. The Tribal Gaming Office and the State Gaming Agency shall attempt to make reasonable accommodations to the scheduling restraints of the other in order to expedite the second inspection and testing firm date. A Gaming Facility Operator's removal of a gaming device from play and then subsequent placement of the gaming device back into play at one of the Tribe's gaming facilities will be considered a gaming device transfer under Section 8.1.7(b) of this Appendix A, rather than a re-install under this section, if the gaming device is not out of play for more than four (4) months, and if, during the period that the gaming device is not in use, it is stored in a secure location with a lock, security tape, or equivalent on its doors, the Tribal Gaming Office's security tape or equivalent installed under Sections 6.6.5 and/or 8.1.4 remains unbroken, and the Tribal Gaming Office controls access to the game software. A Gaming Facility Operator's removal of a kiosk from use and then subsequent placement of the kiosk back into use at one of the Tribe's gaming facilities will be considered a re-installation; provided, however, if the kiosk is not out of use for more than four (4) months, and if, during the period that the kiosk is not in use, it is stored in a secure location with a lock, security tape, or equivalent on its doors, the Tribal Gaming Office's security tape or equivalent installed under Sections 6.6.5 and/or 8.1.4 remains unbroken, and the Tribal Gaming Office controls access to the kiosk software, then subsequent

placement of the kiosk back into use at one of the Tribe's gaming facilities will be considered a transfer.

- b) The Tribal Gaming Office shall notify the State Gaming Agency in writing of the tentative date when the Gaming Facility Operator intends to place a newly installed or modified host system into use, to allow the State Gaming Agency to coordinate inspection and testing. Unless the State Gaming Agency and the Tribal Gaming Office agree otherwise, the Tribal Gaming Office shall provide the written notice at least thirty (30) days before the date the host system is scheduled to be placed into use. Thereafter, the Tribal Gaming Office shall provide the State Gaming Agency at least five (5) days advance written notice of a firm date and time for inspection and testing of the host system. If the State Gaming Agency arrives at a firm date and time and the host system is not ready for inspection and testing, the Tribal Gaming Office shall provide another firm date and time to the State Gaming Agency at least five (5) days in the future.

8.1.4 Tribal Gaming Office Approval.

- a) Before the Gaming Facility Operator places a newly installed, re-installed, or modified gaming device or kiosk into use or play, the Tribal Gaming Office must approve the gaming device or kiosk. The Tribal Gaming Office's inspection and testing shall meet the requirements of Section 6.6.5 of this Appendix. Upon completing its initial inspection and testing, the Tribal Gaming Office shall either approve the gaming device or kiosk or deny approval for use or play of the gaming device or kiosk. Upon mutual agreement between the Tribal Gaming Office and the State Gaming Agency, when the Tribal Gaming Office approves a gaming device or kiosk, it shall either seal the Program Storage Device(s) within the logic area with security tape or equivalent, or seal the logic area door with security tape or equivalent. The Tribal Gaming Office shall also affix an identifying approval seal on the device.
- b) Before a newly installed or modified host system is used in a gaming facility, the Tribal Gaming Office must approve the host system. The Tribal Gaming Office's inspection and testing shall include confirming that the host system complies with the provisions of the Compact and its Appendices and that the host system critical files have been approved by a laboratory for the current version of the installed software.

8.1.5 State Gaming Agency Approval.

- a) Before the Gaming Facility Operator places a newly installed, re-installed, or modified gaming device or kiosk into use or play, the State Gaming Agency must approve the gaming device or kiosk; provided, however, the State Gaming Agency and the Tribal Gaming Office may agree on a case-by-case basis to allow a gaming device or kiosk to be used prior to the State Gaming Agency's approval. Such agreement must be made in writing before the gaming device or kiosk is

used. Upon mutual agreement between the Tribal Gaming Office and the State Gaming Agency, when the State Gaming Agency approves a gaming device or kiosk, it shall either seal the Program Storage Device(s) within the logic area with security tape or equivalent, or seal the logic area door with security tape or equivalent. The State Gaming Agency shall also affix an identifying approval seal on the device. If the State Gaming Agency denies approval for the use or play or continued use the State Gaming Agency shall, at the conclusion of inspection and testing, orally explain to the Gaming Facility Operator and the Tribal Gaming Office why the State Gaming Agency is denying approval. The State Gaming Agency shall issue a written statement to the Gaming Facility Operator and the Tribal Gaming Office setting forth the grounds for denial of approval. State Gaming Agency approval means that the State Gaming Agency agrees with the Tribal Gaming Office that the gaming device or kiosk complies with the provisions of this Compact and its appendices. Notwithstanding the foregoing, if the State Gaming Agency fails to appear at the firm inspection and testing date and time given pursuant to Section 8.1.3(a), the Gaming Facility Operator may put a gaming device or kiosk into use or play without State Gaming Agency approval if the Tribal Gaming Office approves the gaming device or kiosk pursuant to Section 8.1.4(a) after inspecting and testing it to verify that it complies with the provisions of the Compact and its Appendices.

- b) Before a newly installed or modified MCS software, incentive system software, or validation system software is used in a gaming facility, the State Gaming Agency must approve the MCS software, incentive system software, or validation system software. The State Gaming Agency's inspection and testing shall include testing that the MCS critical files have been approved by a laboratory for the current version of the installed software, and testing that the MCS software, incentive system software, or validation system software complies with the provisions of the Compact and its appendices. If the State Gaming Agency determines that a newly installed or modified MCS software, incentive system software, or validation system software complies with the provisions of the Compact and its appendices, it shall approve placing the modified MCS software, incentive system software, or validation system software into use. State Gaming Agency approval means that the State Gaming Agency agrees with the Tribal Gaming Office that a newly installed or modified MCS software, incentive system software, or validation system software complies with the provisions of this Compact and its appendices. If the State Gaming Agency determines that a newly installed or modified MCS software, incentive system software, or validation system software does not comply with the provisions of the Compact and its appendices, the State Gaming Agency shall not approve placing the newly installed or modified MCS software, incentive system software, or validation system software into use and, at the conclusion of inspection and testing, shall verbally explain to the Gaming Facility Operator and the Tribal Gaming Office the basis for its determination. The State Gaming Agency also shall promptly issue a written statement to the Gaming Facility Operator and the Tribal Gaming Office setting forth the basis for

its determination. Notwithstanding the foregoing, if the State Gaming Agency fails to appear at the firm inspection and testing date and time given pursuant to Section 8.1.3(b), the Gaming Facility Operator may put a newly installed or modified MCS software, incentive system software, or validation system software into use without State Gaming Agency approval if the Tribal Gaming Office approves the MCS software, incentive system software, or validation system software pursuant to Section 8.1.4(b) after inspecting it to verify that it complies with the provisions of the Compact and its Appendices.

8.1.6 Notice of Gaming Device Repairs or Replacement.

If a gaming device malfunctions or otherwise requires any repairs or replacements that affect game play, game outcome, or the host system, the Gaming Facility Operator shall provide the Tribal Gaming Office notice within forty-eight (48) hours of completing the repairs or replacements. The notice shall identify the gaming device, shall explain the nature of any malfunction, and shall provide details regarding the repairs or replacements. The Tribal Gaming Office shall provide to the State Gaming Agency by the 5th of each month a report, whether written, electronic, or generated from the MCS, listing the repairs and replacements performed the previous month.

8.1.7 Notice of Removal or Transfer of Gaming Devices.

- a) If the Gaming Facility Operator intends to move gaming devices from the floor of a gaming facility to storage, the Gaming Facility Operator shall provide written notice to the Tribal Gaming Office twenty-four (24) hours prior to moving the gaming devices. The notice shall identify the gaming devices and shall include the serial numbers of those gaming devices. The Tribal Gaming Office does not need to remove any seals from the stored gaming devices. The Tribal Gaming Office shall provide written notice of the move to the State Gaming Agency within forty-eight (48) hours of receiving the Gaming Facility Operator's notice, including a list of the gaming devices and the serial numbers of those gaming devices.
- b) If the Gaming Facility Operator transfers gaming devices within a gaming facility or transfers gaming devices to another gaming facility owned by the Tribe, the Gaming Facility Operator shall provide written notice to the Tribal Gaming Office twenty-four (24) hours prior to transferring the gaming devices. The notice shall identify the gaming devices, shall include the serial numbers of the gaming devices, shall include details regarding the new location of the gaming devices, and shall include verification (with applicable documentation) that the gaming devices are reporting correctly to the host system, have passed coin acceptor tests (if applicable), bill acceptor tests, and door tests, and are covered by surveillance in their new location. The Tribal Gaming Office shall provide written notice of the transfer to the State Gaming Agency within forty-eight (48) hours of receiving the Gaming Facility Operator's notice, including all of the

information the Gaming Facility Operator is required to provide the Tribal Gaming Office.

- c) Except as provided in Sections 8.1.7(a) and (b), before the Gaming Facility Operator removes any gaming devices from a gaming facility, the Gaming Facility Operator shall provide written notice to the Tribal Gaming Office five (5) days in advance of the removal. The notice shall identify the gaming devices to be removed, shall include the serial numbers of the gaming devices, and shall include details regarding when the gaming devices will be removed, the location to which the gaming devices will be taken, and to whom the gaming devices will be transferred. The Tribal Gaming Office shall provide written notice of the removal to the State Gaming Agency within forty-eight (48) hours of receiving the Gaming Facility Operator's notice, including all of the information the Gaming Facility Operator is required to provide the Tribal Gaming Office. Before any gaming devices are removed from a Gaming Facility, the Tribal Gaming Office shall remove and discard all seals from the gaming devices. The Tribal Gaming Office shall provide written verification to the State Gaming Agency of the removal and discarding of the State Gaming Agency seals. These same procedures in Section 8.1.7(c) shall be followed for gaming devices which are in storage and which the Gaming Facility Operator intends to sell or otherwise discard.

8.1.8 Additional Inspections.

Additional inspections of gaming devices and host systems shall be conducted pursuant to Part 6, Chapter 6 of this Appendix.

<p>Dan Bergin, Director Arizona Department of Gaming</p>	<p>By: _____ Title:</p>	<p>_____</p>
<p>Date: _____</p>		<p>Date: _____</p>