NEVADA GAMING CONTROL BOARD

NEW GAMING DEVICE SUBMISSION PACKAGE

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New Gaming Device Submission Overview

Any manufacturer desiring to obtain approval of a new gaming device must have a current license from the State Gaming Control Board (Board) to act as a manufacturer of gaming devices. A manufacturer may seek licensing through the Board's Applicant Services. Once an application has been filed with the Board applicants are encouraged to contact the Technology Division to begin discussions on the conceptual compliance of the gaming device. Once the applicant has been placed on the Board agenda for licensing as a manufacturer, the Technology Division will officially accept a new gaming device submission from the applicant.

A licensed manufacturer requesting approval for a new gaming device must have established a new game financial account balance of at least $75,000 with the Board as part of the official submission. The approval process, as set forth in Regulation 14, consists of a Lab evaluation, field trial, and Board and Commission review and approval. Lab time required for testing and approval heavily depends on the complexity of the device as well as any time required by the manufacturer to correct issues identified by the Lab. Typically the process takes anywhere from 6 to 12 months. Laboratory fees for the test and evaluation of a new gaming device are assessed at the rate of $150 per hour. Expenses for Lab personnel traveling to new game approval hearings and court recorder charges relating to those device hearings are prorated against the accounts of the manufacturers represented at the hearings.

At no time during the approval process shall the manufacturer of the new gaming device collect any revenue for operation of the device. During the field trial, the location hosting the trial will collect 100% of any generated revenue. Employees of the manufacturer may not play the gaming device while on trial.

Upon request, at least one fully functioning production type model of the gaming device must be delivered to the GCB Technology Division which is located at 750 Pilot Road, Suite H, Las Vegas, Nevada, 89119. An additional device may be requested if required.

Submission Checklist

New Gaming Device submissions submitted to the Lab for review must include the materials listed in this checklist in order to be considered a complete submission. Please note that review of your submission will not commence unless your submission is complete. Incomplete submissions may be rejected from the Lab and returned to the Manufacturer.

1. As required by 14.030(2)(a), a complete, comprehensive, and technically accurate description and explanation in both technical and lay language of the manner in which the device operates, signed under penalty of perjury. (Compliance Report)

2. As required by 14.030(2)(b), a statement under penalty of perjury that to the best of the manufacturer's knowledge, the gaming device meets the standards of section 14.040.

3. A letter requesting review of your device that indicates the manufacturer's name, address, phone number, and fax number. Included in this letter should be a list of the persons authorized to

communicate with the Board or the Laboratory relative to the new gaming device by organizational position.

4. A digital image of the production version of the device.

5. Completed hardware and software modification request sheets.

6. Completed New Gaming Device Operator Selectable Options Checklist.

7. Completed New Gaming Device Subcontractor checklist.

8. A copy of all executable software, including data and graphic information and a copy of all source code for programs that cannot be reasonably demonstrated to have any use other than in a gaming device, submitted on electronically readable, unalterable media.

9. A copy of all graphical images displayed on the gaming device including, reel strips, rules, instructions, pay tables, and any strategies used in the game.

10. Provide the Lab with all necessary hardware, software and documentation to reproduce programming and executable software. This typically includes a PC that contains no operating system, along with an operating system and compiler that is submitted on OEM media or downloaded from a verifiable source approved by the Lab. The documentation must include procedures for installing and configuring the operating system, compiler tools, libraries, certificates and anything else necessary to reproduce programming and executable software.

11. A letter from a licensed gaming operator that expresses willingness to host a field trial of the device and includes the number of machines to be placed on the floor as well as a point of contact for the field trial.

12. *For System Based, System Supported, and Mobile Gaming System submissions:

    a. A network diagram that identifies all components on the network including but not limited to EGMs, servers, socket IDs, switches, routers, access points, remote logging devices and security devices.

    b. A listing of all applicable security settings such as firewall rules and configurations, router ACLs, group policies, etc.

    c. A user access listing that identifies all user roles and their level of access to the gaming device as well as a description on how system administrator level access is achieved on the system portion of the device.

    d. A floor map of the installation location that identifies all applicable surveillance coverage necessary to comply with Technical Standard 1.050(3)(b). If any gaming device in the installation request offers a payout of more than $250,000, the map shall also identify surveillance coverage necessary to comply with all applicable surveillance standards.

     e.   A copy of all applicable internal controls for operation of the system based, system supported, or mobile gaming system.

13. *For Mobile Gaming System submissions:
     a.   A floor map of the installation location that identifies the intended wireless gaming area and that identifies:
         i.   The locations of all devices used in restricting the gaming operation of mobile communication devices to intended gaming areas;
         ii.   The locations of all terminals used to reconcile gaming activities in case of mobile device failure or game disputes; and
         iii.   The locations within wireless coverage that are not publicly accessible; i.e., employee corridors, kitchens, etc.

     b.   A description of protections or security measures that will be taken to provide appropriate oversight of non-traditional gaming areas such as pools, restaurants, and retail areas, as well as areas that are not publicly accessible.

     c.   A copy of the contract or agreement between the operator of the mobile gaming system and licensed gaming establishment that identifies which portions of the mobile gaming system will be operated by each party if the licensed gaming establishment is not the sole operator of the mobile gaming system.

     d.   A wireless heat map or site survey that illustrates wireless signal strength and coverage on the gaming floor.

     e.   Copies of all information intended to inform patrons about mobile gaming operation such as gaming area maps, rules of operation, and how to operate mobile devices.

     f.   A description and a copy of all forms used as part of the user registration process.

*NOTE: System Based, System Supported, and Mobile Gaming Device submission requirements are typically dependant on the environment that they are installed. This information should be submitted as it pertains to the field trial location. Submission of these materials to the Lab is not required at the time of initial submission, but must be submitted to the lab no later than 30 days prior to the start of the New Gaming Device field trial.

Software Build Environment

The manufacturer of the submitted gaming device must be able to provide all hardware and software necessary to reproduce programming and executable software. This is to ensure that the software source code analyzed by the Lab's engineers actually compiles into the same version of executable software submitted by the manufacturer.

All submitted hardware such as computers and laptops must be completely wiped, meaning that no software, including an operating system is loaded on the hard drives machine. Documentation that describes how to install the operating system, compiler, libraries, or any other software component required to rebuild the software source code must be submitted to the Lab upon submission of the new gaming device. Typically build processes involve multiple steps and can be quite complex, in which case an engineer may contact the submitting manufacturer to assist in the installation and build process.

Software and firmware that is not developed by the submitting manufacturer and is purchased as an off the shelf product will not need to be recompiled. If any changes or additions are made to off the shelf products to assist in the operation of the gaming device, the changes will need to be clearly documented and submitted to the Lab, as well as a method that will allow the Lab to verify the changes made to the off the shelf product.

There may be specialized software utilities that allow the Lab to perform functions not available in the production version of the software. These utilities may have capabilities such as forcing game outcome, viewing random number generator output, viewing/altering memory locations, crediting the machine, etc. Copies of the latest version of these utilities must be made available to the Lab along with documentation that describes how to install and use them.

If the source code or data requires encryption as a part of the build process, please identify the type(s) of encryption used. If the keys used are intended to be privately held or are unobtainable due to the nature of the key generation mechanism, submission of the key will not be required but a method to reproduce the final image must be provided by the submitting manufacturer.

Frequently Asked Questions

How many machines does the lab need to test?

The Lab will normally request two complete gaming devices to be submitted to the Lab. For networked and community based gaming devices, the Lab may require more client stations.

How much will my submission cost?

This is typically dependant on the complexity of the device as well as the amount of time it takes to complete testing. Products that have minimal issues usually cost less than products that are found to have multiple issues requiring retesting. The average cost of a New Gaming Device review averages around $95,000. A more accurate estimate will be provided to the manufacturer within the first 30 days of reviewing the product submission.

How do I check on the status on my submission?

Within the first 30 days of the Lab receiving a New Gaming Device submission, the manufacturer will be contacted to setup a kickoff meeting at the Lab to discuss the submission. Discussion during the kickoff meeting will include an overview of the project plan, estimated milestone dates, the points of contact for communication with the lab, and anticipated cost of the project.

When can I make corrections to my software/hardware?

After the Lab has reviewed the submission, the manufacturer will receive a formal list of issues that need to be addressed. Upon receiving an issues list, the manufacturer is expected to provide the Lab with a proposed resolution to all issues on the list. These proposed resolutions will be reviewed by the Lab to ensure regulatory compliance and the manufacturer will be notified when and how to proceed with the proposed fixes. It is highly discouraged to provide the Lab with product changes during the testing of the device without prior discussion and consent of the Lab.

How many machines do I need to have for the field trial?

The Lab recommends that manufacturers acquire space to field trial 16-20 gaming devices at the field trial location(s). Trials can be conducted at multiple locations. If multiple locations are used it is suggested that the locations selected utilize different Cashless Wagering Systems. Please note that for gaming devices that communicate to an external Cashless Wagering System, the manufacturer will need to have prior Board approval to use their gaming device with the Cashless Wagering System.

How long is the field trial?

There is no minimum length of time that the gaming device needs to be on field trial. However, the Lab typically needs to observe at least 30-60 days of stable operation and be able to collect enough data to comfortably recommend final approval to the Board. Per Regulation 14.080, the maximum length of the field trial will be no more than 180 days.

How long will it take for my submission to be approved?

Approval time for a new gaming device typically depends on the following factors: complexity of the device, technology used in the device, completeness and thoroughness of the submission materials, manufacturer response time when addressing questions or issues, product stability during the testing process, and operation of the devices during the field trial. The process typically takes anywhere from 6-12 months depending on these factors. After initial review of the product, the Lab will provide more accurate estimates on approval time during the kickoff meeting.

How many game themes can I submit to the lab?

The lab recommends no more than 1-2 game themes during the initial submission of the device in order to minimize the amount of testing required prior to field trial. Submission of additional game themes is not advised, but may be accepted with the understanding that submission of these themes may delays the project and final approval of the device.

After the field trial, what do I need to do?

Once the lab is satisfied with the operation of the device in the field, they will make a recommendation for approval to the Board. The Board will schedule a review of the device at the next available public Board meeting held either in the Carson City or Las Vegas offices. A representative from the manufacturer will be required to attend the meeting to answer any questions the Board may have. If the Board recommends final approval of the device to the Nevada Gaming Commission (NGC), a subsequent public meeting will be held by the NGC where additional questions may be asked, and final approval of the device may be granted.

Once my device is approved, when can I start selling my product to my customers?

Upon final approval of the gaming device, the manufacturer will receive written notification of the approval. At this point, the manufacturer can sell their product for use at licensed gaming establishments. Please note that for gaming devices that communicate to an external Cashless Wagering System, the manufacturer will need to have prior Board approval to use their gaming device with the Cashless Wagering System.

Compliance Report Outline and Guidelines

Device Description:

Describe the new gaming device in sufficient detail for a Lab person to understand. What type of hardware/software does the device run on? What type of operating system is used? What is the intended use of the device (slot machine, digital card game, community based game, server based gaming, etc)?

Include the sequence of events for game play, coin-in limits, denomination, credit usage, and describe the universe of total events the game is based upon (52 cards, four 64 stop reel strips, etc.). Is the winning payout based upon the concept of coin multiplier, buy-a-pay, multiple line, or some other system? If the element of player skill is involved, can its effect on the game payback percentage be calculated or estimated?

Unique Characteristics:

Describe any unique or unusual characteristics of this device. How is this device different in physical design or in its manner of play from previously approved gaming device? Does this device use physical skill or dexterity in any way? Does the device contain a common payoff schedule or require community participation in order to achieve its theoretical payback percentage?

Technical Standards and Regulation 14:

Include a complete description of how the device meets each of the Technical Standards for Gaming Devices and Regulation 14;

Technical Standard [1.020] Electrical Interface Immunity

- 1.020(1) – The device must exhibit immunity to human body electrostatic discharges (ESD) on all player-exposed areas. The lab conducts this test by applying 20,000 volts DC to all player exposed surfaces at one second intervals using air discharge. The gaming device must not be affected in any way. Examples of ESD failures include but not limited to: corruption or erasure of memory, resetting the device, failure of components (monitor, top box, peripherals), or altering any display of information to the player. Please provide the lab with a description of the tests performed to ensure ESD immunity of up to 20,000 volts DC and include any specific tools or equipment used during that testing.

- 1.020(2) - Devices may exhibit temporary disruption to electrostatic discharges of 20,000 to 27,000 volts DC. The lab conducts this test by applying 27,000 volts DC to all player exposed surfaces at one second intervals using air discharge. The gaming device must be able to recover and complete an interrupted play without loss or corruption of information and without failure to any components. Please provide the lab with a description of the ESD tests performed up to 27,000 volts DC and include any specific tools or equipment used during that testing.

- 1.020(3) - Describe the effects of power loss and recovery as well as the effects of voltage spikes and noise on the AC power supply lines.

- 1.020(4) - Explain how the random number generator (RNG) and the random selection process are impervious to externally generated interference. (ESD, electro-magnetic, radio frequency, associated equipment communications).

Technical Standard [1.030] Coin Acceptor and Receiver

- 1.030(1) – Please list any coin or token acceptors/receivers utilized by the gaming device and provide a technical description of how it detects slugging, stringing, spooning, and other cheating methods.

- 1.030(2) - What physical devices are used to detect inserted coins (LEDs, switches, etc.)? Upon what basis does the receiver determine the validity of an inserted coin (size, weight, thickness, metallic content, etc.)?

- Describe the error codes and device response to COIN-IN JAM, INAPPROPRIATE COIN-IN, and REVERSE DIRECTION COIN-IN errors.

Technical Standard [1.035] Change voucher or coupons

- 1.035(1) - Is the device or client capable of accepting vouchers less in amount than its smallest accounting or base denomination?

    o (a) If not, does the gaming device immediately reject the voucher?

    o (b) If so, does the device allow for the additional accumulation of wagering credits on an odd cents meter?

- 1.035(2) - Is the device or client capable of accepting vouchers greater in amount than the smallest denomination and not evenly divisible by any of the gaming device's denominations?

    o (a) If so, is a change voucher or coupon issued immediately?

    o (b) Does the device allow for the additional accumulation of wagering credits on an odd cents meter?

    o (c) Does the device immediately reject the voucher if the gaming device does not have a printer or if the printer is not functioning for any reason?

Technical Standard [1.040] Hopper

- Describe how the device detects coins-out (LEDs, switches, etc). Please describe in detail any and all mechanisms used in that device to prevent cheating and circumvention of coin-out detection.

- List all error codes and describe how the device responds to COIN-OUT JAM, EXTRA COINS PAID OUT, HOPPER RUNAWAY and HOPPER EMPTY conditions.

- Describe the hopper payout limits.

- Describe methods available to determine if the hopper is full, and what mechanisms are used to activate the drop diverter (weight switch, coin level sensor, etc.)

Technical Standard [1.045] Printers

- If the device utilizes a wagering instrument printer, please provide the make and model of the printer as well as the communications protocol used to communicate to the gaming device.

- 1.045(1) - Please describe all available conditions that the printer is able to detect, and how the printer detects those conditions. In addition, please provide a description of how each of those conditions is displayed on the gaming device (soft tilt, hard tilt, candle activation, etc). Please note that at a minimum, the printing device must be able to detect paper low, paper out, presentation error, printer failure, and paper jam conditions.

- 1.045(2) – Please describe where the printer is located within the gaming device, and all lockable areas used to restrict access to the printer.

Technical Standard [1.050] Physical Security

- 1.050(1) - Describe any and all methods used in the device to prevent and identify illegal entry to the device.   At a minimum, this description should include the following information:

  - How evidence of entry is retained and under what conditions can this evidence be cleared.

  - A listing of all circuit boards that contain control programs or program storage media.

  - A description of the covers used to protect these circuit boards and whether or not operators will be able to install locking mechanisms on these covers.

  - A listing of all error messages and device response to all security events such as DOOR OPENING, DOOR CLOSING, DROP DOOR OPEN, LOGIC DOOR OPEN, etc.

- 1.050(2) - For system supported games, describe the area that the servers or system components are intended to be installed and administered from. Describe how this area limits access to the server or system components to authorized personnel.

  - (a) Describe the client portions of the system. Are they conventional gaming devices? How are they secured physically such that they comply with Technical Standard 1.050(1)?

  - (b) Describe how the system supported game records all logical access to the system components that comprise the system supported game. System components include all servers, networking equipment, and security equipment used in operation of the system

based or system supported game. If this information is recorded on a logging device, please describe how the logging device operates, the personnel intended to operate the logging device, and where the device will reside.

Describe the information recorded in the access logs including time, date and the identity of the individual accessing the secure area? How does the logger guarantee that recorded transactions are kept for 90 days?

- 1.050(3) - For system based games, describe the area that the servers or system components are intended to be installed and administered from. Describe how this area limits access to the server or system components to authorized personnel. Please include a description of the surveillance methods used to monitor operation of the system based game, the areas covered under surveillance, and the retention period for surveillance video.

    o (a) Describe the client portions of the system. Are they conventional gaming devices? How are they secured physically such that they comply with Technical Standard 1.050(1)?

    o (b) Describe how the system based game records all logical access to the system components that comprise the system based game. System components include all servers, networking equipment, and security equipment used in operation of the system based or system supported game. If this information is recorded on a logging device, please describe how the logging device operates, the personnel intended to operate the logging device, and where the device will reside.

    Describe the information recorded in the access logs including time, date and the identity of the individual accessing the secure area? How does the logger guarantee that recorded transactions are kept for 90 days?

- For system supported mobile gaming clients:

    o How does the client actively monitor physical entry into the device and report entry to the system portion of the device?

    o How does the client retain physical evidence of entry into the device? Is this accomplished through the use of seals or locks? How does the client render itself unusable for gaming transactions until properly cleared by authorized personnel once entry has been detected?

    o For system based mobile gaming clients how does the mobile gaming device retain evidence of illegal entry?

Technical Standard [1.060] Communication with Associated Equipment

- 1.060(1) - Describe all communications between the game and outside equipment (progressive controller, data gathering system, cashless wagering system, on-line slot metering system, etc.).

Explain why erroneous data or signals from associated equipment can not adversely affect the operation of the gaming device. Please include a copy of the protocol documentation.

- 1.060(2) - Identify all jackpot signals that are sent to progressive jackpot controllers. Describe how they go through a combination of at least 8 time and magnitude logic changes to indicate that a legitimate jackpot has been hit by the gaming device.

- 1.060(3) – For system based or system supported gaming devices capable of communicating with other external equipment or programs, describe the means by which this communication is made and the communication interface used. Please include the following additional information about the communication interface:

  - (a) Supported protocols and/or interfaces used to facilitate the communication. Describe how they prohibit the external connection from direct access to the internal components, software or data of the system based or system supported gaming device.

  - (b) The area where data is placed and made available for external requests. Describe how this area is sufficiently segregated from the system based or system supported software.

  - (c) How the device is capable of preventing the external requests of the system from adversely affecting the system based or system supported game operation.

Technical Standard [1.062] Communication between Client or Conventional Gaming Device and Servers or System Portions of a Gaming Device

- 1.062(1) - Describe the method used to securely link clients to the server and describe how this method will eliminate the possibility of non-authorized clients from receiving software downloads.

- 1.062(2) - Describe the encryption method used when communicating player input, game outcome, financial transactions, and game recall between the client and the server.

Technical Standard [1.066] Remote access to gaming devices

- 1.066(1) – List all portions of the system based or system supported gaming device that have the ability to be logically accessed remotely. Describe which devices are allowed or not allowed remote access and how that remote access is enabled or disabled on the system. Include how remote access is intended to be used, and where remote connections will be established (ie internal or external to the gaming network).

- 1.066(2) – Please list any firewalls or network appliances used control and administer remote access to the network or to individual components on the network. In addition, include a description of how those firewalls are configured.

- 1.066(3) - Describe how remote access is secured such that only authorized users may be given the ability to remotely access the system.

- 1.066(4) - Describe how the system allows for severing of remote access connections. Also describe how severed remote access connections are reestablished between the system and any requesting clients. Does the device have the ability to automatically sever remote access connections to clients when not actively communicating?

- 1.066(5) – Describe how the system records remote accesses to the system or any component on the system based or system supported game. Also include whether or not any additional logging devices are used to record this information for regulatory use. Describe what information is stored on these records/logs.

- 1.066(6) – Describe how the system monitors any remote logging devices and how the system detects when the logging device is not operational. Describe how the system disables remote access when the logging device is detected to be non-operational.

- 1.066(7) – For system based and system supported games that download software to be used on a conventional gaming device or client, describe where the software is stored and how that area is protected against adversely affecting the operation of the conventional gaming device or client.

- 1.066(8) - For system based and system supported games that download software to be used on a conventional gaming device or client, describe how the software is authenticated prior to performing any operation on the software (ie decrypting, extracting, or decompressing).

Technical Standard [1.070] Error Conditions

- 1.070(1) - Describe the error code and the response of the device to each of the following error types. These conditions may be automatically cleared by the gaming device upon completion of a new game sequence.

    - (a) Power Reset

    - (b) Door Open

    - (c) Door Just Closed

    - (d) Inappropriate Coin-In

- 1.070(2) - Describe the error code and the response of the device to each of the following error types. These conditions must disable game play and must be cleared by an attendant.

    - (a) Coin-In Error (Coin jam, reverse coin-in, etc.)

    - (b) Coin-out error (Coin jam, extra coin paid out, etc.)

    - (c) Hopper empty or timed out (Hopper failed to make payment)

    - (d) Hopper runaway

- o (e) Low RAM Battery

- o (f) Print Failure

- o (g) Printer mechanism paper jam

- o (h) Printer mechanism paper out

- o (i) Program error (Defective program storage media)

- o (j) Reel Spin error of any type

- o (k) Removal of control program storage media

- o (l) Uncorrectable RAM error (defective of corrupted RAM)

- 1.070(3) - Describe the error code and the response of the device to each of the following error types. These conditions must be cleared by an attendant however game play may continue if an alternative method is available to complete the transaction or the condition does not prohibit the transaction from being completed.

  - o (a) Hopper empty or timed out (Hopper failed to make payment)

  - o (b) Printer mechanism low paper

  - o (c) Presentation error

  - o (d) Print failure

  - o (e) Printer mechanism paper out

  List and describe all other types of errors that are detected and displayed by the device. Please include the steps required to reset each of the errors and whether or not attendant intervention is required. Describe any data losses or changes due to an error reset.

- 1.070(4) - Include a copy of the device error codes that are to be affixed inside the gaming device. Describe attendant activated external game controls (key switch, door switch, etc.) and identify their functions. This is only required if error codes are not self-explanatory.

  List attendant activated internal game controls (switches, push buttons, etc.) and identify their functions.

Technical Standard [1.080] Control Program Requirements

This standard applies to standalone conventional gaming devices and conventional gaming devices and clients that operate in conjunction with a system based or system supported gaming device.

- 1.080(1) - Identify all conventional (EPROM) memory devices by label, size, type, board location, and hex address range as seen by the processor. Identify how each of these conventional memory devices is rendered unalterable while in circuit. Please provide a memory map that identifies address space for control programs, critical data, and unused space. Describe the boot process using a block diagram and identify any authentication process being performed as well as the portion that controls the device during each stage of the boot process.

  Fully describe the method used by the device to verify the control programs and data resident on all conventional ROM devices. Identify the game states or specific times during game play when they are invoked. If a failure of this verification occurs, please describe in detail how the device behaves and what notifications or error messages are displayed.

  Include a copy of the source code of the routine that checks the control program for corruption. If these control programs are loaded into and operate out of RAM does the program that loads the RAM reside on and operate from a conventional ROM device?

- 1.080(2) - Identify all non-conventional (CD-ROM, Hard drive, compact flash, SD, etc.) memory devices by size, type, and location. If applicable, please provide a memory map that identifies address space for control programs, critical data, and unused space.

  - (a) For control programs stored on media other than a conventional ROM device, describe the method used to authenticate the contents of the media prior to loading and executing any programs stored on the media. If a failure of this authentication occurs, please describe in detail how the device behaves and what notifications or error messages are displayed. Does the program that loads RAM from this media reside on and operate from a conventional ROM device?

  - (b) Describe the mechanism used to test unused or unallocated areas of any alterable storage media for unintended programs or data and what occurs if unexpected data or programs exist.

  - (c) Describe the mechanism for keeping a record anytime a control program component is added, removed, or altered on any alterable storage media. Please describe what information is displayed in each record such as time and date, affected component, reason for modification, and any pertinent validation information. The record must contain a minimum of the last 10 transactions.

  - (d) Describe the mechanism for validating all program components which reside on non conventional media on demand via a communication port and protocol. Include what specific files or data regions are validated, any algorithms used in validation, how long it takes to perform a validation, and when the validation is actually performed. Please also indicate where the mechanism for extracting the authentication information resides. Include a copy of the protocol documentation used in this process.

- 1.080(3) - Identify all volatile RAM devices by size, type, board location and hex address range as seen by the microprocessor. Please describe how volatile memory is managed by the device and whether memory is mapped statically or dynamically. If an operating system is responsible for managing memory, please indicate the type of operating system, software version, and any specific integrity checks the operating system utilizes to identify if memory is corrupted.

  If control programs are executed from volatile RAM, describe the method that is used to verify that these programs are authentic copies of the programs loaded from either the conventional ROM device or media. How often does this authentication occur?

- 1.080(4) – Does the device allow for the adding, removing or alteration of any control program components through a data communication facility? If so,

  - o (a) Describe how the add/remove/alter process occurs and how the device prevents any changes from taking place during a game in progress or a game session.

  - o (b) Describe how the device stores program changes including changes in graphics and sound.

- 1.080(5) - Are all unused portions of conventional ROM devices which contain control programs set to zero?

- 1.080(6) - Identify all Non-Volatile RAM memory by size, type, board location and hex address range as seen by the microprocessor. Describe the circuitry and components used to maintain the non-volatile RAM (batteries, EEPROM, etc.).

  Describe in detail the method used to check for corruption of information stored in non-volatile RAM that relates to play and final outcome of PRIOR GAME OUTCOMES, RANDOM NUMBER GENERATOR OUTCOME, CREDITS AVAILABLE FOR PLAY, ERROR STATES AND JACKPOT STATES. Identify the game state or specific time during game play when the RAM integrity test is invoked. Include a copy of the source code of the routine that checks the game for corruption. What is the response of the gaming device when RAM corruption is detected?

  Identify all CPU's by type, usage, clock frequency, and board location. If any ROM memory is contained in a CPU chip, describe its address range and its function.

  Identify all programmable logic devices and include what they are used for and how they are programmed.

- 1.080(7) - Describe how the device retains information pertaining to game history. The present game and nine prior games must be available for recall, showing all critical game information and how it relates to the game that was played. Sufficient information should be stored to resolve any uncertainty in patron disputes over how the present and past specific games are actually played and the end results of game play. This information should include what wagers were placed, what cards were dealt, what was held, how many credits existed, what payments were made, what is owed,

what were the winning combinations, etc. Games with a variable number of intermediate steps per game may satisfy this requirement by providing the capability to display the last 50 play steps.

- Note: In accordance with this standard, 10 games (nine prior and the most recent) must be stored in memory. In games where "free games" are awarded as the result of a qualifying alignment, the "free games" are regarded as intermediate play steps of the game that initially awarded the free games. As such, the initiating game and the last 50 free games awarded must be stored in game memory. For games that award additional "free games" during free game play, the subsequent "free game" initiating games need not be stored unless they are contained in the last 50 free games played. 1.080(8) - Does the gaming device have the capacity to display a complete transaction history for the most recent 35 transactions with a cashless wagering system? Where is this information stored?

Technical Standard [1.084] Control Program Requirements for System Supported Games

- 1.084(1) – Describe what types of clients will be connected to the system supported game. Does the system supported game allow clients from other manufacturers?

- 1.084(2) - Describe the method of authentication of all control programs contained on the server or system portion of the device. Include what specific files or data is authenticated on the device. Describe how the device performs this authentication automatically at least once every 24 hours or on demand.

  Describe how the device responds when unauthentic software is detected on the system and how the operator is notified of this invalid software. Include any reports or logs that are available to the operator to identify and view details of a performed authentication. Describe where the authentication mechanism is located on the system, and how that area is rendered non-alterable.

- 1.084(3) - Describe how the device allows for a secondary verification method based on a user input of at least 32 bits. Include how this secondary verification method is initiated and any secured interfaces or connections used. Does the system allow for software verification of both system components and clients?

- 1.084(4) – Describe how system administrator level access is achieved. Does the system support split passwords or dual keys? Please describe any internal controls used to ensure two individuals are required to gain system administrator level access to the system.

- 1.084(5) – Describe how the system logs events related to software changes or upgrades on the server portions of the device. Include what information is contained on the log entries such as time/date, components or files affected, user that performed the change, reason for modification, and any pertinent validation information. Describe where this log is stored, how the log is accessed by users of the system, and how long the logged information is retained for (is this retention period configurable?). Does the device utilize a remote logging device that is not accessible to individuals

that perform changes on the server portions of the system? If not, how is the logged information rendered unalterable such that any tampering of the logged information is prevented or detected?

- 1.084(6) – List all devices/servers that are responsible for logging events when a software change is performed on a client or conventional gaming device connected to the system supported game. Include what information is contained on the log entries such as time/date, components or files affected, user that performed the change, reason for modification, and any pertinent validation information. Describe where the log is stored for each component that records this information, how the log is accessed, and how long the logged information is retained for (is this retention period configurable?). For conventional gaming devices that support software downloads, please describe how many records are stored on the gaming device itself.

- 1.084(7) – If the system supported game allows software downloads to conventional gaming devices or clients, please describe how the conventional gaming devices or clients ensure that software downloads are completed successfully, and that the downloaded software is an authentic version.

- 1.084(8) – If the system supported game allows software downloads to conventional gaming devices or clients please describe how the server or system portions validate the software download to the conventional gaming device or client.   Does the system support a command that causes a conventional gaming device or client to validate the software downloaded to it? If the conventional gaming device or client detects invalid software, how does it respond?   Are any signals or messages sent back to the system to notify the operator of an invalid software verification?

- 1.084(9) – When a change is made to the system or conventional gaming device software while the conventional gaming device or client is being played, describe how that device prevents the changes from affecting current gameplay and operating parameters.

- 1.084(10) - For system supported games that download software to be used on a conventional gaming device or client, describe how the software is authenticated prior to performing any operation on the software (ie decrypting, extracting, or decompressing). How does the conventional gaming device or client determine when active software may be changed?

- 1.084(11) – Describe what secure interface ports are available on the system portion of the device that allow for the authentication and validation of software residing on the system.

- 1.084(12) – Describe where game history is stored for each conventional gaming device or client connected to the system. Is the game history accessible through the conventional gaming device or client attendant menu? Please include what information is stored in game history and how many games can be stored in game history. For conventional gaming devices or clients that support removal of game themes, describe how the gaming device functions when a game theme is removed and the gaming device contains a game history event for that theme.

Technical Standard [1.086] Control Program Requirements for System Based Games

- 1.086(1) – Describe what types of clients will be connected to the system based game. Are the clients conventional gaming devices or thin clients? Does the system based game allow clients from other manufacturers?

- 1.086(2) - Describe the method of authentication of all control programs contained on the server or system portion of the device. Include what specific files or data is authenticated on the device. Describe how the device performs this authentication automatically at least once every 24 hours or on demand. Describe how the device responds when unauthentic software is detected on the system and how the operator is notified of this invalid software. Include any reports or logs that are available to the operator to identify and view details of a performed authentication. Describe where the authentication mechanism is located on the system, and how that area is rendered non-alterable.

- 1.086(3) - Describe how the device allows for a secondary verification method based on a user input of at least 32 bits. Include how this secondary verification method is initiated and any secured interfaces or connections used. Does the system allow for software verification of both system components and clients?

- 1.086(4) – Describe how system administrator level access is achieved. Does the system support split passwords or dual keys? Please describe any internal controls used to ensure two individuals are required to gain system administrator level access to the system.

- 1.086(5) – Describe how the system logs events related to software changes or upgrades on the server portions of the device. Include what information is contained on the log entries such as time/date, components or files affected, user that performed the change, reason for modification, and any pertinent validation information. Describe where this log is stored, how the log is accessed by users of the system, and how long the logged information is retained for (is this retention period configurable?). Does the device utilize a remote logging device that is not accessible to individuals that perform changes on the server portions of the system? If not, how is the logged information rendered unalterable such that any tampering of the logged information is prevented or detected?

- 1.086(6) - List all devices/servers that are responsible for logging events when a software change is performed on a client or conventional gaming device connected to the system based game. Include what information is contained on the log entries such as time/date, components or files affected, user that performed the change, reason for modification, and any pertinent validation information. Describe where the log is stored for each component that records this information, how the log is accessed, and how long the logged information is retained for (is this retention period configurable?). For conventional gaming devices that support software downloads, please describe how many records are stored on the gaming device itself.

- 1.086(7) – If the system based game allows software downloads to conventional gaming devices or clients please describe how the conventional gaming devices or clients ensure that software downloads are completed successfully, and that the downloaded software is an authentic version.

- 1.086(8) – If the system based game allows software downloads to conventional gaming devices or clients please describe how the server or system portions validate the software download to the conventional gaming device or client.   Does the system support a command that causes a conventional gaming device or client to validate the software downloaded to it? If the conventional gaming device or client detects invalid software, how does it respond?   Are any signals or messages sent back to the system to notify the operator of an invalid software verification?

- 1.086(9) – Describe where game history is stored for each conventional gaming device or client connected to the system. Describe where game history can be accessed from both the server portion of the device or on any of the connected clients. Please include what information is stored in game history and how many games can be stored in game history. For conventional gaming devices or clients that support removal of game themes, describe how the gaming device functions when a game theme is removed and the gaming device contains a game history event for that theme.

- 1.086(10) – Describe where transaction history for cashless wagering systems are stored on the system based game. Describe where this transaction history can be accessed from both the server portion of the device or on any of the connected clients. Please include what information is stored in the transaction history and how many records can be stored.

- 1.086(11) - When a change is made to the system or conventional gaming device software while the conventional gaming device or client is being played, describe how that device prevents the changes from affecting current game play and operating parameters.

- 1.086(12) - For system supported games that download software to be used on a conventional gaming device or client, describe how the software is authenticated immediately after the download is complete. If a failure of this authentication occurs, please describe how the game responds as well as how the system is notified. How does the conventional gaming device or client determine when active software may be changed?

- 1.086(13) – Describe what secure interface ports are available on the system portion of the device that allow for the authentication and validation of software residing on the system.

Technical Standard [1.090] Bonus or Extended Game Features

- Describe any submitted gaming device theme(s) which include a bonus or extended game feature. Include in the description how the feature complies with this standard. Auto-initiation of a bonus or extended game is prohibited unless certain conditions have been met. If the player is given a choice between at least two items (i.e., pick door one or door two),–Is the player informed that their choice will be auto initiated? If so, how is the player informed that their choice will be auto initiated as well

as how the player is given the ability to acknowledge that the gaming device will auto initiate their decision through physical interaction with the gaming device.

- If the player is given the ability to initiate the bonus or extended feature (i.e. hit spin to start free games) describe any time out periods associated with the feature initiation. Is the time out period operator adjustable?

- If the bonus or feature is part of a community style feature describe how the player is made aware of any auto-initiation play selection or play initiation. Also describe how the game notifies the player of the time remaining prior to auto selection or initiation.

Technical Standard [1.100] Reel strips

- 1.100(1) - Given a physical reel strip of length L units containing N physical stops, does each blank space occupy a minimum of (L/N)*0.4 units? Are these blank symbols completely free of any portion of any adjacent symbol?

- 1.100(2) - If the device has physical reel strips, are all non-blank and blank symbols centered in their respective space allocation?

- For single-line games, jackpot symbols may not appear in their entirety more than 12 times, on average, adjacent to the pay line, for every time they appear on the pay line. Do all submitted games comply with this requirement?

- For multi-line games, jackpot symbols must not appear in their entirety more than 12 times, on average, not on any pay line, for every time they appear on any pay line. Do all submitted games comply with this requirement?

Technical Standard [1.110] Safety

- 1.110(1) - What manufacturing standards and practices have been followed to assure that players will not be subjected to electrical, mechanical or fire hazards?

- 1.110(2) – Describe the power supply used in the gaming device and how leakage current is minimized in the event of intentional or inadvertent disconnection of the AC power ground. How is the device electrically fused or fault protected? How much AC and DC leakage current flows when the AC cord ground wire is disconnected? Please also list and describe any Uninterruptible Power Supplies (UPS) used on the device.

Technical Standard [1.120] System Based Game Configuration

- 1.120(1) - Please identify the maximum number of clients/socket IDs that the system portion can support. In addition, please include how this configuration can be changed if possible. If the device's intended mode of operation is to support more than 64 clients, please describe how the system responds and operates in the event of a failure of a single part or piece of equipment or in the event of a failure in the system's automated software validation.

- 1.120(2) - If the device's intended mode of operation is to support more than 64 clients, please describe how the clients on the system respond to a failure of a single part or piece of equipment on the system or a failure in the system's automated software validation.

- 1.120(3) – Describe how the system based game ensures proper retention of game recall, cashless wagering activity, game performance, and accounting information in the event of a failure of any single part of piece of equipment.

- 1.120(4) – Describe how clients provide a means to cash out credits in the event of communication loss between the client and server.

Technical Standard [1.130] Requirements for downloading software to a conventional gaming device or client station from a system supported game

- 1.130(1) - When software is downloaded to a device or client and activated, will accounting meter information be destroyed? If so, describe how meter information is communicated to a slot accounting system prior to destruction of that information.

- 1.030(2) – Describe all error or tilt conditions including door just closed tilts that prevent the addition or removal of software from the device or client.

Technical Standard [1.135] Requirements for downloading software to a conventional gaming device or client station from a system based game

- 1.135(1) - When software is downloaded to a device or client and activated, will accounting meter information be destroyed? If so, describe how meter information is communicated to a slot accounting system prior to destruction of that information.

- 1.035(2) – Describe all error or tilt conditions including door just closed tilts that prevent the addition or removal of software from the device or client.

Technical Standard [1.140] Conditions for changing active software on a conventional gaming device or client station that is part of a system supported or system based game.

- 1.140(2) - Describe the conditions necessary for changing active software on client stations connected to the system based or system supported game. Include how the system detects and determines that the device or client has been idle with no errors or tilts for four minutes (Refer to Technical Standard 1.070 for all recognized errors and tilts). Is this timeframe adjustable? Describe how the system disables the game for a minimum of 4 minutes prior to making the new active software available. Is this timeframe adjustable? Describe what is displayed to the patron during unplayable/disabled states.

- 1.140(3) - If the system allows for a patron to request a change to the active software, what conditions or errors are checked prior to changing active software?

- For gaming devices and client stations that offer a progressive payoff schedule, will a change made to the conventional gaming device or client station result in the violation of Regulation 5.110 or 5.112?

Technical Standard [2.010] Accounting Requirements

- 2.010(1) - Describe the methods that can be used to change the device payback percentage (program change, soldered jumpers, software selectable top award values, etc.).

- 2.010(2) – If the device supports draw poker games with switch selectable or menu selectable top awards, list the available ranges of the payback percentages that can be selected.

- List and describe all software selectable device options (buttons, keypads, etc.).

- List and describe hardware selectable device options. What are the differences in theoretical payback percentages for each of the different coin play amounts? Does the device have electronic meters (at least 6 digits) for storing the number of game plays in each category of wager (1 Coin games, 2 Coin Games, etc.) if the difference in theoretical payback percentage is greater than 4% between the min and max coins wagered?

Technical Standard [2.020] Accounting of Inappropriate Coin-Ins

- Describe how the device handles inappropriate coins-in. How does the device return coins or accumulate credit for extra coins in? How are these coins accounted for? Do they increment coin-in or coin-out meters? Describe how the device minimizes inappropriate coins-in.

Technical Standard [2.030] Accounting of Hopper Payouts

- Does the device count coins paid out as the result of an EXTRA COIN PAY or a HOPPER RUNAWAY? How are these coins accounted for in the device metering? Are the counts displayed?

- Describe how the gaming device permits the gaming establishment to comply with published IRS regulations? If the gaming device offers more than one betting opportunity describe how these bets are evaluated relative to the established jackpot lockup limit.

Technical Standard [2.040] Meters for gaming devices, system supported and system based games

- 2.040(1) - Does the game have electronic digital storage meters of at least 10 digits for accumulative storage of the following:
  - Coin-in
  - Coin-Out
  - Coin Drop
  - Attendant Paid Jackpots
  - Attendant Paid Cancelled Credits
  - Physical Coin in

- o Physical Coin Out
- o Bill in
- o Voucher in
- o Voucher Out
- o Electronic Funds Transfer In
- o Wagering Account Transfer In
- o Wagering Account Transfer Out
- o Non-Cashable Electronic Promotion In
- o Cashable Electronic Promotion In
- o Non-Cashable Electronic Promotion Out
- o Cashable Electronic Promotion Out
- o Coupon Promotion In
- o Coupon Promotion Out
- o Machine Paid External Bonus Payout
- o Attendant Paid External Bonus Payout
- o Attendant Paid Progressive Payout
- o Machine Paid External Bonus Payout

Please include and describe any additional meters maintained by the device. Describe if meters are displayed in dollars and cents or in an accounting denom.

Do the COIN-IN meters accumulate all coin and credit transactions that result in wagers? Do the COIN-OUT meters accumulate all coin and credit transactions paid by the gaming device for winnings combinations? Will the in and out meters always correctly reflect the percentage hold of the device regardless of the play methods? Do the DROP meters accumulate all coins that have been diverted to the drop?

Describe the steps needed to display all soft meter information? How are the soft meters cleared or reset?

What other game performance statistical information is stored? What steps are required to display statistical information? What steps are required to clear statistical information?

- 2.040(2) – Does the device use a legend to identify meters that do not contain a label?

- 2.040(3) – Describe how meters are stored in the event of a power loss. How long is this information stored for?

- 2.040(4) – Does the device have electronically stored meters at least 8 digits that records the following:
    - o Number of games played since Power Reset

- o   Number of games played since door close
- o   Number of games played since Game Initialization (RAM Clear)
- Describe what occurs when any of the meters maintained by the device reach their maximum value.
- 2.040(5) – Describe how the following meters are continuously displayed to the player, even through bonus features:
  - o   Number of COINS or CREDITS WAGERED,
  - o   Number of COINS or CREDITS WON
  - o   Number of COINS PAID by the HOPPER
  - o   Number of CREDITS AVAILABLE

Technical Standard [2.045] Meters for system based games

- 2.045(1) – If the conventional gaming device or client is connected to a system based game, describe how the meters listed in Technical Standard 2.040 are accessed from the conventional gaming device or client.

- 2.045(2) – Does the system based game have the ability to store, display, and send the meters listed in Technical Standard 2.040 to a slot accounting system? Please describe what protocols are used to transmit this data, and a description of what information is sent.

Technical Standard [2.050] Credit Play Requirements

- 2.050(1) - Describe all of the methods by which cashable credits are accumulated. If the device accumulates credits from a coin or token acceptor, describe how that coin/token acceptor determines the metallic composition of the coins. What is the maximum amount which may be wagered on a single game? What is the maximum amount that may be wagered on special conditions such as double down bets, etc.?

- 2.050(2) – If the device is able to support non-cashable credits, cashable credits given away by a licensee, or any other type of credit, describe the order in which credits available for play must be wagered.

Technical Standard [2.060] Award Cards

- Include copies of the par-sheet for each game theme submitted with this device to this report.

- Outline the methods used to identify and display award amounts for each specific winning combination. Are awards identified in denomination units, dollars, cents or in some other units? Is the award card displayed on the glass or the video screen?

- How does the device reflect any change in award value that may occur in the course of play?

- Attach a copy of the device display that shows the rules of play and the payoff schedule.

Technical Standard [2.070] Jackpot Odds

- Does the device have or can be configured to have a top award where the odds of winning that award exceed 100 million to one? If so, describe how these odds are advertised to the patron.

Technical Standard [4.010] User Authorization

- 4.010(1) - How does the mobile gaming system verify that the mobile communications device is being operated by an authorized person?

- 4.010(2) – Describe how the user authorization mechanism is capable of being initiated both on demand and on a regular basis.

  Does the system support and employ strong user authentication, authorization and accounting that checks against a user database? Does this authentication process require multi-factor authentication of at least 2 factors such as a something the user knows (password), has (player card) or is (biometrics)? Are these factors of authentication verified prior to the opening of a session?

  Are users verified at random time increments that do not exceed 30 minutes? What factor of authentication is performed at that time?

  Are user sessions terminated when: user authentication has not been successfully completed within a 30 minute timeframe, when no game activity has occurred within 5 minutes, the mobile unit has entered a non-gaming area, or when the user or system has terminated the session?

- 4.010(3) - Is authorization information used for identification purposes collected at the time of the request from the mobile gaming system? Is this information stored locally on the mobile communications device?

- 4.010(4) - Can the mobile communication devices be reasonably moved by a patron?

Technical Standard [4.020] Mobile Communications Device Communication with a Mobile gaming System

- 4.020(1) - How is the communication between the mobile communications device and the mobile gaming system securely linked? How does this method authenticate both the mobile communications device and mobile gaming system as authorized to communicate over that link.

- 4.020(2) - How do mobile gaming system components such as access points or wireless controllers which interface with mobile communications devices sufficiently isolate the mobile communications devices from the server portion of the mobile gaming system?

- 4.020(3) - How do the mobile communications devices ensure that it may only communicate with authorized mobile gaming systems? Do mobile devices communicate through other mobile devices?

Does the system provide a log of all failed attempts at network access that includes the device name and hardware identifier? Is this log stored for a minimum of 90 days?

Please list all communication ports contained on the mobile communications device and identify which are used for communications with the mobile gaming system. Please describe how unused ports are disabled or rendered unusable.

Technical Standard [4.030] Location Restrictions

- How is the mobile gaming system designed to restrict gaming operation of the mobile communications device to public areas as defined by NGC Regulation 5.220?

- If a patron enters a non-gaming area, does the system suspend gaming transactions following the completion of any current transaction and notify the patron that gaming transactions have been suspended until the patron reenters a gaming area and is reauthorized?

- Upon reentry into the gaming area, is the patron reauthorized and does the device return to the last known state prior to gaming activity suspension.

Technical Standard [4.040] Mobile Communications Device Volume

- Please describe how to adjust and/or mute the volume from the mobile communications device.

- Does the mobile device include patron help screens that include the rules associated with the operation of the mobile device? Please provide screenshots of these help screens.

- Does the system provide authorized personnel a terminal that will allow for the reconciliation of game activity (play history, etc) on any mobile unit in case of mobile device failure or disputed games?

Regulation 14.024

- Provide a list of all independent contractors, as defined by Regulation 14.010, involved in the manufacturing of the gaming device. The list should contain at a minimum, the independent contractor name and/or organization name, the source code files that were developed, and the hardware developed. Please also indicate if the relationship is currently active.

- 14.024(2) - Provide a record of the software, source language, or executable code that was designed, developed, produced or composed by an independent contractor, by contractor name.

Regulation 14.025

- If any of the game themes submitted are or could be considered primarily intended or marketed for use by persons under 21 year or age please provide an analysis articulating the reasons why the theme(s) is not prohibited by subsection 1 of Regulation 14.025.

Regulation 14.040

- 14.040(1) - Provide all parsheets and documentation necessary to mathematically demonstrate the theoretical pay out percentage of the device and provide the calculations upon which the determinations of the probabilities of winning or losing combinations were based. This percentage must not be less than 75 percent for each wager available.

    o (a) If the device supports any games that are affected by player skill (ie Video Poker), please describe the optimal strategy or method of play for that game, and how that optimal strategy or method of play contributes to the theoretical payback percentage and produces the best long-term average return to players.

    o (b) If a percentage of less than 75 percent is present, indicate such and attach a request for a waiver of the 75 percent standard.

- 14.040(2) - Describe all random number generation processes and all game outcome selection processes. Identify algorithm used and show step by step implementation of the random number generator in the source code. Attach a copy of the source code used for the random number generation and the random selection process as well as a description of how the RNG is seeded. The RNG should not use static seeds upon initialization and the seeding process should rely upon at least one non predictable factor (i.e. human interaction of turning a key). Identify RAM address locations, as the CPU sees them for random number generator seeds, parameters and data outcomes, etc. Does the RNG continuously "cycle" even when no game is being played and while not in a tilt or error state? The RNG should continue to cycle at a minimum of 100Hz (100 calls per second). Please provide the cycle frequency of the RNG and a description of how the frequency was verified.

    o (a) Is every possible permutation or combination of game elements which produce winning or losing combinations available for random selection at the start of each game?

    o (b) If the game is representative of a live game, does the appearance of each symbol or game element match the probability or appearance of identical elements in a live game?

    o Do any of the games themes submitted alter the probability of game elements appearing in a winning or losing combination? If so describe and provide examples of how the patron is made aware that a change has been made. For example;

        ▪ In the case of a video reel game where reel element weightings are changed due to free or bonus spins the gaming device must:

            - Alter the appearance of the reels (i.e. change the appearance of the symbol or change the background color of the reel strip);

            - Explicitly state on the game screen that "bonus reels are in play"; and

- Explicitly state in the help or award screens that different reels are used during the free or bonus spins.

  - In the case where multiple video reel games are offered simultaneously the gaming device must:
    - Uniquely identify each game; and
    - Indicate in the help or award screens which games use different reels.

  o For all other games, is the mathematical probability of a game element appearing in a losing combination equal to the mathematical probability of that symbol appearing a winning combination? Thus if a blue 7 is likely to appear on a pay line in a winning combination 1 out of 32 times, then the same blue 7 must appear in a losing combination 1 out of 32 times. This requirement is only applicable to elements that are capable of being in both winning and losing combinations, i.e., scatter symbols that always result in a win are exempt.(c) Describe the random selection process that results in the outcome of a game. Please include all of the logical choices and processes that are performed from the time the player initiates a game, to the time that the device evaluates and displays the game result and pays for a winning outcome. This process should not include any logic that would alter the random selection process due to previous game outcome, the amount wagered, or the style or method of play. For example, a single pay line "buy a pay" device cannot make it more likely that three 7's will appear on the pay line if the patron has not wagered the qualifying amount. As an additional example, a multi-line game cannot make it more likely that the top award will appear on the 9th pay line when that pay line is not active. In

  o Does the device utilize a quick pick or auto selection process for games like Keno? If so, please explain how the random selection process used to generate these results is independent from the random selection process used in the primary game.

  o For video poker and card based themes please provide us with the selection process and any specific algorithms used in selecting draw cards. Does the game buffer pending draw cards in memory before the patron has made his draw selections?

  o Does the device utilize a mechanical RNG? If so, describe how the mechanical RNG is monitored for compliance with the required confidence limits on a real time basis.

- 14.040(3) - What testing was conducted to check for patterning in the output of the random selection process? Are there any secondary decisions made which would affect the outcome of the game prior to it being displayed to the player? If the game outcome is a win which is the result of three random numbers which map to certain symbols these symbols must be displayed. For example, if the random numbers generated are 1, 10, and 28 and those numbers map to cherry symbols then these cherry symbols must be displayed on the pay line. Using poker as another example, the random selection process cannot choose a hand that consists of 5 cards, 4 suits and no pairs and then display a hand that has an ace, king, queen, and jack of the same suit and a non-winning card of another suit. A given random result should always produce the same displayed

outcome to the patron. Equivalent outcomes cannot be substituted at any point during the random selection process.

- 14.040(4) – If the device can be connected to other devices such that they all play for a common payoff schedule or award:

    o (a) Do all of the devices connected use the same denomination and have the same odds of winning the common payoff schedule/award?

    o (b) Do the devices have a way of equalizing the expected value of winning the common payoff schedule/award between all of the connected devices? If so, please describe how this is done.

- 14.040(5) – Describe where game rules and payoff schedules are displayed for player to read.

- 14.040(6) - Are any functions or selection processes of the device altered as a result of internal computation of the hold or payback percentages of the device?

Regulation 14.170

- A permanent serial number which must be the same number as given the device pursuant to the provisions of the Gaming Device Act of 1962, 15 U.S.C. 1173, permanently stamped or engraved in lettering no smaller than 5 millimeters on the metal frame or other permanent component of the device and on a removable metal plate attached to the cabinet of the device. Describe where this serial number is placed on the gaming device cabinet.

Operator Selectable Options Checklist

On every circuit board, identify every jumper, DIP switch, solder strap.

Jumper, Switch or Strap ID/Board	J = Jumper D = Dip Switch S = Solder Strap	Purpose

Gaming Device Subcontractor Checklist

A gaming device cannot have two or more components listed in NRS 463.0155 that are manufactured by the same company unless the company is a licensed manufacturer. For each component listed below provide the person or company who designed and manufactured the components. Attach additional sheets if necessary.

Component	Designed By	Manufactured By
Circuit Boards:		
Cabinet:		
Coin Acceptor:		
Wiring:		
Software:		
Reel Mechanisms:		
Hopper:		
Other Significant Components:		