

Minimum Technical Requirements for Casino Electronic Monitoring System

of the

**Gambling Act (Casino Gambling Equipment)
Minimum Standard 2010**

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Amendment to Gambling Act (Casino Gambling Equipment) Minimum Standard 2010

Minimum Technical Requirements for Electronic Monitoring System for Casinos¹

1. Introduction

1.1. Purpose

- 1.1.1. This document defines minimum core principles, requirements and outcomes for a Casino Electronic Monitoring System (CEMS) for the electronic monitoring, configuration and control of gambling equipment² such as electronic gaming machines, jackpot equipment and table games.

1.2. Scope

- 1.2.1. This document replaces those requirements previously specified in GAMING AND MONITORING EQUIPMENT STANDARDS (G.A.M.E.S) for Casino monitoring Systems; and
- i. applies to all Casino new CEMS systems and associated processes as from the day after the date of notice in the *New Zealand Gazette*; and
 - ii. where connected to an EGM utilising ASP 1000 and ASP 2000 EGM³ protocol for the configuration and receipt of EGM event and meter data. No other EGM protocol is permitted. Casino operators are required to ensure that EGM continue to have this functionality.
- 1.2.2. It is permitted where a monitoring system does not use the ASP protocol natively that it can provide protocol translation converters at any stage of the network.

¹ **Note to Standard:** Legislative requirements including health or safety matters and privacy or requirements concerning for example, electrical wiring and or radio frequency emission etc are the domain and responsibility of the manufacturer, purchaser and operator of the equipment Parties are required to ensure full compliance.

² The generic term gambling device and EGM is used interchangeably through out this document.

³ ASP 1000 and Asp 2000 functionality is that current at eh date of notice in the New Zealand Gazette of this document Any change or alteration in ASP functionality must be documented and approved DIA.

- 1.2.3. Where conformance to a specific requirement(s) of the Gambling Act (Casino Gambling Equipment) Minimum Standard 2004 is not detailed in this document, then those minimum standards apply as applicable.⁴
- 1.2.4. Any previous dispensations granted by either the Casino Control Authority or the Department for the DACOM Casino Monitoring System and where a dispensation is required to remain in force must be re-submitted and agreed to by the Department.
- 1.2.5. Unless specifically excluded by the requirements of this document, then where available appropriate Information Technology (“IT”) industry standards and/or guidelines such as those recommended by Standards New Zealand, the gambling industry or system supplier for IT design, installation, operation, maintenance and security should, where possibly, be utilised.
- 1.2.6. Where other gambling systems such as for example a Players Loyalty System and Promotional System that are not the subject of a separate gambling equipment standard need to connect to a CEMS for the collection and/or download of data in particular the collection of gaming machine meter data, the download or upload of promotional credits or gambling equipment screen overlay functions then this document applies for the interconnection between these systems including the interface at each end.
- 1.2.7. Note that, for example a promotional system that collects player information and/or downloads/uploads promotional credits then the connection both physical and protocol to and from the CEMS to the promotional system is included.

1.3. Approval and Certification

- 1.3.1. A casino operator must have its CEMS system tested and certified by an Accredited Test Facility, (“ATF”), and have approval from the Department of Internal Affairs, (“the Department”), that its CEMS systems conforms to the requirements of this document before the system can be utilised.
- 1.3.2. The CEMS design and configuration must be such that an adequate baseline can be taken of the system. Baseline software includes that software required to implement a CEMS to meet the requirements of this document. Unapproved software that may affect the integrity or the operation of the CEMS must not be located outside of the defined system baseline.
- 1.3.3. Each software revision must be separately evaluated by an ATF.
- 1.3.4. Software must be clearly labelled, and contain sufficient information to identify the version and any modification, etc. The identification used is at the discretion of the supplier but it must strictly follow that supplier's

⁴ The current Australian/New Zealand Gaming Machine National Standard (NS) as gazetted details general hardware and software requirements that include for example the provision of manuals, security of equipment, printed circuit board, critical memory design etc

identification system as detailed in the supplier's software change control procedures.

- 1.3.5 There must be a method in which to verify that the ongoing configuration of the system is identical to that approved.
- 1.3.6. CEMS source code suitably documented including the supply of any necessary compiler, assembler or linker etc. whether commercially available or propriety must be made available on demand to any ATF contracted for the purposes of approving a CEMS.
- 1.3.7. It is sufficient for an ATF, if presented with necessary documentation and verification to accept a test report from another acceptable testing authority for any identical component or sub-part previously certified and approved. An acceptable testing authority can be another ATF or a testing facility acceptable to the CEMS certifying ATF.
- 1.3.8. There must be provision by the casino operator and/or CEMS supplier for an ATF to access and make use of an acceptable in-house facility sufficiently configurable or an external test-environment to be able to conduct or have verified necessary testing of CEMS changes and additions, and for an external equipment manufacturer e.g. EGM supplier, to allow interoperability testing of gambling equipment for connection to a CEMS and to enable the diagnosis of problems.
- 1.3.9. If the live systems are used as test systems, it must not be possible to interfere with the operation of, or data stored on, the live systems and/or any gambling equipment installed other than that under evaluation.
- 1.3.10. Interoperability testing is to be completed on any item of gambling equipment required to be connected to a CEMS and as a minimum this testing should confirm that the CEMS can connect to this equipment and perform basic control, configuration, data collection/ transfer functions
- 1.3.11. Interoperability testing must be certified by an ATF before any approved gambling equipment is installed and configured for use.
- 1.3.12. It is then acceptable for a manufacturer or distributor of any gambling equipment to subsequently claim such equipment has passed inter-operability testing.

1.4. Access by Duly Authorised Officers

- 1.4.1. Authorised Staff employed by the Department must be able to access CEMS data, events and statistical data at any time

2. EGM Monitoring, Configuration and Control Requirements

2.1. CEMS Outcomes

- 2.1.1. A casino operator must implement a Casino Electronic Monitoring System (CEMS) capable of performing the following broad functions for all gambling equipment required to be connected:
- i. fault-redundant collection and retention of individual device financial and real-time meter data,
 - ii. logging, reporting and searching of gambling equipment events,
 - iii. capability of issuing real-time commands to gambling equipment for configuration, control and meter data extraction,
 - iv. reconciliation of meter data against external count such as for example cash count, hopper level, ticket/token or electronic funds transfer as appropriate,
 - v. recording of source of EGM player credit input for play such as for example cash, token, ticket, card, electronic funds transfer. Where a source of player credits is for example by card or electronic funds transfer (EFT) that can be differentiated then this should include, where possible, card id, jackpot EFT transfer integrated/external jackpot, promotional credit EFT transfer including type of promotional credit.⁵
 - vi. configuration and control of the gambling equipment,
 - vii. performance reporting,
 - viii. systems security,
 - ix. real time commands to the casino surveillance system.
 - x. validation of ticket/vouchers/tokens/player account cards where these are permitted⁶.
 - xi. the ability to manually or automatically send control codes to a gambling device to disable/enable all gambling operations on that device such as for example on failure of a signature check.
 - xii. support automatic signature checks of EGM software, and other gambling devices if required, and can initiate such checks daily and on demand by generating and communicating a variable seed.⁷ ;
 - xiii. assist and capture data that enables the identification and reporting of possible money laundering activities such as for example large EGM

⁵ ASP 2000 device Class 0x04 Type 0x05 (Credit Transfer) Type 0x07 (Cashless Credit Transfer In) are 2 of the EGM Device Definition that may, depending on EGM manufacturer implementation

⁶ Note: this standard does not imply that IIIO and Cashless Electronic Funds Transfer for example, unless specifically stated, are permitted other than that which was in force at the date of Gazette of this standard

payments or transfers that are the result of in/out EGM transactions with little or no EGM play or prize activity.

2.2. Metering

- 2.2.1. Real-time meter or event data is data generated in real-time by the gambling device. This data may subsequently be modified only by the CEMS if required. However, it must not be possible to alter real-time values without retaining a log history of any changes.
- 2.2.2. EGM real-time meter and event data, configuration data and game play statistics are to be stored fault-tolerantly in the CEMS host. They may also be held temporarily at intermediate points in the CEMS. Once stored fault-tolerantly in the host then any intermediate storage device and EGM can have their data purged or erased as appropriate.
- 2.2.3. Meter and event data shall be stored and be readily retrievable for a period of 5 years. As a minimum the last 24 months data should be immediately accessible for report and search purposes.
- 2.2.4. Real-time meter data retrieved from an EGM must be stored as gross value and not as an incremental or delta value.
- 2.2.5. As a minimum those meters⁷ and their units, and events⁸ as detailed in NS are to be collected.
- 2.2.6. Meter requirements for other systems such as live keno terminals are treated on a case-by case basis.
- 2.2.7. The monitoring system must not assume that any data it receives from an EGM is ever correct. Strict integrity checks must be applied before processing any EGM data at all times.
- 2.2.8. CEMS meter storage, handling and processing must be able to deal with the meter width meters, expected rate of meter counts, and be sufficient to cater for resulting meter wrap events (i.e. to detect and correctly handle meter wraps), and so preserve the true total data.
- 2.2.9. Only approved control functions of gambling devices may be implemented. These control functions are as specified in the CEMS and associated ASP protocol documentation.
- 2.2.10. All events recorded are to be individually time stamped.

⁷ ASP 1000/2000 as at the date of Gazette of this standard then only those meters collected and available via ASP are acceptable to meet this requirement

⁸ As at the date of Gazette of this standard only those events collected and available via ASP and in accordance with the previous requirements detailed in GAMES C3.2 15, see Appendix 1, are acceptable to meet this requirement

- 2.2.11. Any requested or unsolicited response from an EGM must contain the most recent data.
- 2.2.12. All meter data where this has changed must be output automatically by the EGM or caused to be collected, i.e. EGM is polled, at a period of no less than every 2 seconds.

2.3. Configuration Database

- 2.3.1. The following data must be maintained for each gambling device:
 - i. location and status e.g. enabled for play, disabled etc ,
 - ii. hardware device description (e.g. serial number, manufacturer, DIA approval number),
 - iii. software description i.e. game name and base including DIA approval numbers.
 - iv. individual configuration details (i.e. denomination, software version installed, games available, progressive status),
 - v. turnover linked gaming group configuration details such as progressive jackpot pool membership
 - vi. external bonus feature membership
 - vii. a history of upgrades, movements, and re-configurations.

2.4. Search and Report Functions

- 2.4.1. The system software is to provide comprehensive search and report mechanisms for the purpose of:
 - i. examining of events and statistical data.
 - ii. verifying the financial activity of all gambling devices connected,
 - iii. verifying fair play of gambling equipment and other system awards that the system offers to players,
 - iv. verifying the correct operation and configuration of the gaming system including gambling devices connected.
- 2.4.2. The search mechanisms should cater for a variety of "keys" for the search, including date, time, event number, machine/terminal number, etc.
- 2.4.3. The search and report mechanisms should include both dynamic and static report access. Any licence fees payable for the use of propriety search and reporting software and/or additional or specialised hardware or software must be provided and paid for by the casino operator.
- 2.4.4. The Department must be provided with both local and remote access to CEMS search and report mechanisms. The following conditions are applicable:

- i. this link is to be on-line real time within a casino operator's premises.
 - ii. the link may optionally be dial-up to offices external to the operator's premises.
 - iii. this link is for the purpose of obtaining reports or other information (e.g. security events).
 - iv. must interface and able to be used from DIA standard desktop install.
- 2.4.5. Where the use of propriety software and licence restrictions limit the number of staff that can access the CEMS data at any one time, staff location and/or limit the data retrieved in any period this must be agreed to by the Department before the CEMS system is installed and approved.

2.5. Gambling Equipment Interface Device

- 2.5.1. It is permissible for a gambling device to interface to the CEMS via an interface device that communicates configuration and control commands and receives and stores meter and event data provided it does so either in real-time as data is generated and/or by a poll/response cycle of not less than 2 millisecond.
- 2.5.2. An interface device or any other intermediate device, such as a gateway device, that maintains buffered/logging information containing EGM meter and event data must conform to the Critical Memory requirements of the NS.
- 2.5.3. If EGM data is stored in an interface device or uploaded in real time to the CEMS host, then an EGM is not required to have hard meters installed.
- 2.5.4. The EGM must not place an undue current drain on any other device connected to the EGM such as monitoring interface cards in either the power on or off condition.
- 2.5.5. In the event of a loss of communication and/or failure of an interface device to store or continue to store EGM data such that EGM meter and event data will be overwritten then the device must cause the EGM to disable.
- 2.5.6. It must be possible for significant event data such as for example signifying gambling device security events, signature failure, hand pay required etc., to be communicated to the CEMS host in real time and acted upon...

3. CEMS System Requirements

3.1. System General

- 3.1.1. The CEMS must be computer based with sufficient load capacity (processing, memory, communications interfaces and storage) to efficiently monitor and control all gambling devices within the casino.
- 3.1.2. A casino operator must not allow additional gambling equipment to be connected beyond the theoretical load capacity for the system.
- 3.1.3. The CEMS is to be secure and able to be audited and operated correctly.
- 3.1.4. CEMS data shall be stored on redundant media so that no single failure of any portion of the system would cause the loss or corruption of data.
- 3.1.5. Only approved programs, data files and operating system files may reside on a disk or in the memory of CEMS computers. In particular, editors, compilers, assemblers and data manipulation programs (other than as a part of the normal program suite) must not be available anywhere on the system.
- 3.1.6. Antivirus and malware protection, and detection must be provided, where appropriate. Such protection should be updated automatically.
- 3.1.7. Firewalls including physical and/or logical subnets should be utilised to protect against unauthorised access.
- 3.1.8. A change control system must be operated and maintained for the system software.
- 3.1.9. Regular and periodic back-ups (at least daily) of the database files must be carried out.
- 3.1.10. There must be off-site storage of at least one copy of the back-up.
- 3.1.11. The current date and time must be maintained centrally to at least the nearest second and should never be inaccurate by more than 5 seconds and used:
 - i. as a system clock for all timed references such as for events;
 - ii. to time stamp significant events;
 - iii. to time stamp configuration changes;
 - iv. to initialise, verify and update at least once per day the EGM date/time.
- 3.1.12. Any dates displayed must be in Australian/New Zealand format either as dd,mm,yy or dd/ mm/yy or dd,MMM,yy where MMM is, at least, an alphabetical 3-character representation of the month. Note that “yy” may also be “yyyy”.
- 3.1.13. Any change in date/time must not result in ambiguous time event data associated with any system or gambling device activity.
- 3.1.14. On floor items of CEMS such as servers, gateways, communication controllers etc must be securely housed and have door open sensors.

3.2. Information Security Management System

- 3.2.1. *The casino operator must have in place an Information Security Management System (ISMS) for information security management giving assurance that risks to CEMS and associated information assets and infrastructure including on-going changes, are continuously maintained within acceptable information security bounds. This system must be to IT industry acceptable standards and regularly reviewed and audited*
- 3.2.2. As a minimum an ISMS must consider and identify:
- i. business process and systems that are to be relied upon
 - ii. critical interfaces where assurance over the accuracy and completeness of data being transferred is required
 - iii. determination of high-risk functions and/or sensitive data
 - iv. at-risk system master data (e.g master files, tables, host EGM meter and event data) and/or programs
 - v. dynamic changes in infrastructure such as personnel roles, responsibilities
- 3.2.3. Any breach of CEMS security must be investigated and the Department advised at the earliest opportunity.

3.3. Password Protection

- 3.3.1. The operating system of the computer(s) must provide comprehensive password security.
- 3.3.2. It is expected that all programs and important data files can be accessed only by entry of a password which will be known only to authorised personnel.
- 3.3.3. The storage of passwords and PIN's be in an encrypted, non-reversible form.
- 3.3.4. A program must be available that will list all registered users on the system including their privilege level

3.4. Network and Communication

- 3.4.1. All communications must use a protocol-based communications scheme for:
- i. communication to/from the gambling machines or terminals. An external jackpot controller or communications interface via a "wiring harness" is acceptable provided that security or metering information is not able to be readily compromised.
 - ii. communications from the jackpot controller or interface to the CEMS must be protocol based.
 - iii. either synchronous or asynchronous communications may be used.

3.4.2. Communications protocols must include the following:

- i. error control and correction to ensure an accuracy of 99% or better is achieved. The use of only parity or simple checksum byte is not acceptable.
- ii. flow Control.
- iii. link Control (remote connection).

3.4.3. Communications must be on-line real-time where:

- i. linked progressive jackpots are operated and,
- ii. there is any form of cashless play involving the electronic transfer of funds.

3.4.4. Where any data (e.g. credits, metering and event data, data pertaining to a game outcome, etc.) are transferred between microprocessors or sub-systems internal or external to a gambling device, there must be a form of error detection and correction on the transferral.

3.4.5. Where communication is required to be implemented, such that more than one gambling device may communicate using the same transmission medium, a device's communications port must, after loading the appropriate divisors into the UART (or other), operate at a baud rate within a 1% tolerance of the required baud rate.

3.4.6. Wireless communication is not permitted. Any proposal for the use of wireless in any part of the network between the CEMS and any gambling or intermediate device connected will require an addendum to this standard.

3.5. **Encryption**

3.5.1. Encryption that employs variable keys or similar methodology to preserve secure communication is required where:

- i. critical data is transmitted and the communication link is unsecured,
- ii. connection is to a linked progressive jackpots,
- iii. electronic funds transfer transactions and
- iv. a link to a Departmental facility is provided.

3.6. **Back House System Computer Room**

3.6.1. Back-office systems refer to any system and communications equipment that is located in a separate area to the actual gambling activity such as for example CEMS host computer, a server room, jackpot control system, table management systems etc.

- 3.6.2. If CEMS equipment located in a position accessible by the general public, it must be in a securely locked holding cabinet and any exposed cable must be enclosed in conduit.
- 3.6.3. The back house system computer room(s) shall be a secure area which only authorised personnel may enter or access particular equipment:
- i. the adoption of an electronic locking system that provides logging information on entry and exit of personnel must be in place.
 - ii. logs should be routinely reviewed for compliance
 - iii. there is to be a detection system that provides an alarm, in several forms, when unauthorised entry to the computer room is attempted.
 - iv. rack/Cabinets should be physically locked.
 - v. access to networking devices (routers, firewalls, switches) should be restricted to authorised personnel.
 - vi. networking devices should reside in secure rooms or closets

Computer System Disaster Recovery

- 3.6.4. It must be possible to restore the state of the back house system(s) and its/their database(s) with no loss of data.

Environmental controls

- 3.6.5. Industry standard environmental practices shall be in place to manage possible short and long term risks against environmental exposure such as for example power failures, flooding, fire, etc.
- 3.6.6. Environmental measures such as for air-conditioning, smoke or heat detectors, water detectors should be used, and at least for the power and air conditioning, are to be monitored by a computerised system that will perform automated switching to backup systems for most component failures of the environmental system.
- 3.6.7. The computer room must have an appropriate automatic industry standard fire detection and protection system

Air Conditioning

- 3.6.8. The back house computer room must have appropriate air conditioning to maintain the environment required by the computer(s) for normal operation. There must be sufficient duplication in the air conditioning system to allow the computers to continue operation should there be a failure of a single component of the air conditioning system.

Emergency Lighting

- 3.6.9. The computer room must have an emergency lighting system that automatically lights when mains power is lost.

Power Supply

- 3.6.10. The back house computer systems must be protected against power fluctuations and temporary loss by installation of a UPS or other such device.
- 3.6.11. The back house systems and gambling floor equipment are to be protected against long term loss of power by installation of a generator or other such device. The generator or device should have the fuel capacity to support the computer systems, air conditioning, security system, telecommunications equipment and computer terminals, and sufficient lighting for normal operation of the computer room and gambling equipment for a period of not less than 24 hours.
- 3.6.12. The UPS must provide sufficient supply to support the gambling systems while the generator or device is operated and enable the system to be shut down in an orderly manner, without the loss of data, should the generator or device fail.
- 3.6.13. The UPS and generator or device are to be tested at least every three months.
- 3.6.14. CEMS and gambling equipment must be on a separate switchboard supply circuit to other equipment within the casino that may cause power fluctuations, line transients, power spikes etc.
- 3.6.15. Static electricity in the computer room must be kept to an absolute minimum.

Gambling Floor

- 3.6.16. All carpet near electronic gambling equipment must have permanent anti-static properties
- 3.6.17. The materials from which seating provided on the gambling floor is constructed must be chosen to minimise the potential for static build-up.

Wiring

- 3.6.18. All wiring power and data must comply with appropriate industry standard wiring rules.
- 3.6.19. Power and data cables into and out of gambling equipment are to be routed so that they are not accessible to the general public.
- 3.6.20. Data cables must be routed away from internal sources of electrical noise, including power cables.
- 3.6.21. Cables must not be routed or left unrestrained so that they interfere with the removal of components required to be removed during routine operation or maintenance.

- 3.6.22 Cables that are routed into a logic area must not be able to be removed without accessing the logic area in an approved manner.
- 3.6.23 There must be no mains ground interconnections via data cabling between devices powered from different wall outlets

4. Table monitoring

- 4.1.1 Requirements for table game monitoring as detailed in game rules will continue to apply. CEMS will integrate with table game monitoring as appropriate under the general requirements for CEMS detailed in this document.

5. Jackpots

5.1. Introduction

- 5.1.1. The scope of the policy on jackpot allowable configuration is to be determined. The main change is an integrated jackpot controller. However, these requirements apply equally to an integrated or external jackpot controller. The significant difference is the ease with which an integrated controller can be configured for multiple jackpots across all of a casino gaming machines. For example external jackpot controllers are usually confined to a small number of gaming machine banks requiring additional cabling and other technical considerations etc, if additional gaming machine banks are to be included. An integrated controller can connect various gaming machine banks easily by software configuration.
- 5.1.2. Further consideration is required to establish whether it is appropriate or necessary to limit the number of machines which make up the jackpot pool. Concerns raised to date include the increased size and rate of the jackpot pool, higher value wins and a higher frequency of striking a jackpot. This Standard may well be amended accordingly to reflect these policy concerns as is considered appropriate.
- 5.1.3. It is proposed to align casino jackpot requirements with those applicable to Class 4 jackpots. This will bring gambling equipment comprising gaming machines and jackpots under similar standards.

5.2. Department to approve jackpots

- 5.2.1. All jackpots must be approved by the Department of Internal Affairs ("the Department") prior to operation

5.3. All Jackpots to be downloadable

5.3.1. The jackpot prize win amount must be downloaded electronically to the winning gaming machine's credit meter.

5.4. Linked Progressive Jackpot System

5.4.1. A linked progressive jackpot is an arrangement where two or more gaming machines within a single venue:

- i. are linked electronically to a jackpot controller device or system for the purpose of play on a progressive jackpot; and
- ii. contribute a fixed equal increment percentage (contribution) of single game play turnover to the jackpot prize pool; and
- iii. contribute equally to a player's chance of winning the jackpot prize pool during game play.

5.4.2. A linked gaming machine that is not contributing to a jackpot is not eligible to win the jackpot.

5.4.3. The outcome of a jackpot prize win or loss must not be determined until a valid bet/contribution has been received by the jackpot controller.

5.4.4. The total effective increment percentage of a jackpot prize pool is the total of:

- i. the fixed increment percentage of contributions from the turnover of a machine linked to the jackpot; and
- ii. where the jackpot start-up value is greater than \$0, a percentage amount required to fund the preset start-up value.

5.4.5. A 'jackpot level' is each separate pool in which a jackpot prize can be won as the result of one play of a linked gaming machine.

5.4.6. Jackpot systems may have one or more jackpot levels that comprise an approved jackpot parameter set.

5.4.7. The increment percentage must be expressed to a number of decimal places that corresponds to the value actually used by the controller in calculating the available jackpot pool as a percentage of a gaming machine turnover.

5.4.8. Each jackpot level must have its own jackpot prize pool parameter values comprising, gaming machine contribution increment rate, preset start-up value and preset maximum win value (ceiling) providing the preset start-up value, excluding any rollover amount added from a previous jackpot pool(s) where applicable, can be a dollar value from \$0 and up to 80% of the maximum preset jackpot prize level.

5.5. Progressive Jackpot Trigger Operation

- 5.5.1. A jackpot prize can only be triggered:
- i. for a Symbol Triggered jackpot, by a random occurrence of a specified game play outcome of a single game play on a gaming machine (e.g. five of a kind); and/or
 - ii. for a Mystery Triggered jackpot, by a random mystery trigger event, for example, a gaming machine turnover contribution that when added to the current jackpot pool causes its value to equal or exceed a hidden randomly selected mystery trigger value that lies between the preset start-up amount and the preset maximum pool value; and
 - iii. software based pseudo RNG's must be used to trigger jackpots. The RNG algorithm must be in accordance with the RNG requirements of the Australian/New Zealand Gaming Machine National Standard.
- 5.5.2. The randomly selected mystery trigger value must be chosen and stored using a method where the chosen value cannot be accessed and used other than for the purpose of jackpot trigger determination.
- 5.5.3. The chance of winning a jackpot prize by a single game play on any linked gaming machine must:
- i. be in proportion to its contribution to the jackpot;
 - ii. have an equal chance of winning the jackpot when equal amounts are contributed at any one point in time;
 - iii. not have proportionality factors that vary between gaming machines and/or game(s) played; and
 - iv. not have proportionality factors achieved by modification of the method of selection or determination of the game result (e.g. fiddling with a deck of cards).
- 5.5.4. A jackpot prize must not be triggered as a result of a component of skill.

5.6. Player Fairness

- 5.6.1. It is acceptable for a player's chance of winning to be passed on to the next play of the same gaming machine providing that all players have an equal chance of benefiting from this behaviour (e.g. due to minimum gaming machine turnover contributions assimilation to the jackpot pool).
- 5.6.2. A jackpot prize must not be offered at any time when it cannot be won. For example, if there is a hardware or communication failure of the jackpot system, it must be clear that the jackpot is shutdown and unavailable.

5.6.3. The following applies to symbol triggered progressive jackpots:

- i. if jackpot contributions exceed the jackpot ceiling value on any current jackpot, then all subsequent contributions received once that ceiling is reached are to be credited to an overflow meter.
- ii. the overflow meter amount must be automatically transferred to the next jackpot pool or pools directly after the current jackpot is won providing the amount transferred does not cause the next jackpot pool to exceed the set ceiling amount for that pool.
- iii. the choice of start-up value combined with play at any wager and number of lines must not cause the overflow pool to exceed a value which would not be reasonably expected, as shown by theoretical calculation and/or emulation, to be paid out during the lifetime of a jackpot.
- iv. jackpot Systems must display what happens to overflow contributions. For example, jackpot artwork or notices may contain the statement: "Once the jackpot pool maximum level is reached, additional contributions are carried over to the next jackpot pool(s)".

5.7. **Jackpot Contributions**

5.7.1. All contributions to a jackpot must be returned to the players as wins except upon jackpot decommissioning or a failure of the jackpot system to operate correctly.

5.7.2. All contributions received once a jackpot pool has triggered must be applied to the next jackpot pool. No contributions are to be lost while the jackpot system processes a jackpot win.

5.7.3. A replacement jackpot consequent upon a jackpot decommissioning and/or reset following a jackpot failure is to start operation, where possible, at a pool value (including overflow pool value) equal to the decommissioned or faulty jackpot pool values.

5.7.4. Where a new commissioned jackpot has different start-up and maximum win parameters such that it is not possible to transfer a pool(s) value exactly, the pool(s) is distributed over the new jackpot pool(s) such that:

- i. the opening balance of the first jackpot is no more than 80% of the maximum prize payable;
- ii. any pool value not transferred under (i) is distributed fairly over other associated jackpot level pools; and
- iii. where a jackpot has an overflow pool, any overflow pool from the decommissioned jackpot is transferred, including any balance of pools not able to be distributed to other jackpot level pools.

- 5.7.5. Pool values not able to be transferred are not to be assimilated or included in gaming machine revenue.

5.8. Walk-aways

- 5.8.1. A 'Walk-away' occurs when a jackpot prize is awarded to a gaming machine with no player in attendance or if a player mistakenly leaves the gaming machine not realising they have won a jackpot.
- 5.8.2. The 'Walk-away Period' is defined as the period of time starting the instant a play is completed that results in the player credit meter going to zero, until the time the gaming machine is awarded and displays to the player any jackpot prize which may occur as a result of the last play contribution.
- 5.8.3. Where Walk-away is possible, the jackpot system (including the linked gaming machines) design and performance must:
- i. minimise the walk-away period;
 - ii. not have a walk-away period that exceeds 10 seconds inclusive of allowing 6 seconds to elapse after the gaming machine credit meter has been detected to have just gone to zero.
- 5.8.4. If a power failure or similar event occurs before the jackpot system would have awarded a jackpot to a winning gaming machine, then the jackpot system must award the jackpot to the same gaming machine immediately after coming back on-line.

5.9. Protocol Requirements

- 5.9.1. There must be a reliable 2-way communications protocol between all components forming part of a jackpot system.
- 5.9.2. Communication of data and information (e.g. base jackpot increment rate, gaming machine contributions and win notification) between a linked gaming machine and the Jackpot Controller must be via a reliable 2-way communication protocol.
- 5.9.3. The protocols used must have some form of error detection and error recovery capability. The suggested minimum error detection algorithm quality is a 16 bit CRC.
- 5.9.4. Jackpot controller communication ports must be galvanically isolated from each other to prevent any interference that could arise due to connection of subsidiary equipment on another port.
- 5.9.5. Data transferred to the gaming machine must, in addition to that required for the operation of a linked jackpot system, include additional data required for game and player information displays on gaming machines e.g. jackpot RTP.
- 5.9.6. To prevent the loss of contributions due to device failure or transmission errors, discrete contribution packets are not allowed to be transferred between

sub-systems at any stage within a jackpot system. All contributions must be attributed correctly.

- 5.9.7. Contributions to the jackpot pool must take no longer than 5 seconds to be incorporated into the jackpot pool amount.
- 5.9.8. The jackpot system must place unreasonable contribution limit tests on all contributions at every stage of transfer between sub-systems, and:
 - i. the unreasonable contribution limit must be as small as possible without inadvertently creating exceptions;
 - ii. the unreasonable contribution limit must be set proportional to the number of linked gaming machines and the time between successive contributions as applicable;
 - iii. any linked gaming machine providing the unreasonable contribution must be removed from contributing to the jackpot and a message to that effect displayed for that gaming machine;
 - iv. any unreasonable contribution must not contribute to the jackpot current amount or create any chance of winning the jackpot.
- 5.9.9. Where adjustments to the unreasonable contribution limit are possible (i.e. the limit is not hard coded), the jackpot controller must:
 - i. provide adequate protection to ensure the limits can only be changed by authorised personnel; and
 - ii. record the change, with full details, as an event.
- 5.9.10. The following are recommended 'self-audit check' requirements for jackpot systems:
 - i. the jackpot system must perform a self audit check on each jackpot level whenever an event of significance occurs.
 - ii. events of significance include, but are not limited to, a jackpot reset, logic door close, memory reset, parameter change and gaming machine configuration change.
 - iii. self-audit checks must also be performed prior to the updating of critical memory and upon a jackpot hit.
 - iv. as minimum, the self audit check should reconcile jackpot meters using the following formulae:
$$\text{Current Jackpot amount} + \text{Overflow} = (\text{Total turnover to jackpot} * \text{Percentage Increment}) + (\text{Hits} * \text{Reset Amount}) + \text{Initial Startup} - \text{Total Jackpot Wins}.$$
- 5.9.11. Failure of the self-audit check, where provided, must cause the jackpot controller to enter an unrecoverable memory error.

- 5.9.12. For auditing purposes, any unreasonable contributions detected must result in an event with full details that contain, as a minimum, the following information:
- i. a date and time stamp;
 - ii. gaming Machine serial number;
 - iii. amount of the invalid contribution; and a
 - iv. new final total contribution meter amount.
- 5.9.13. Meters must be auditable and conform to Australian/New Zealand Gaming Machine National Standard meter width requirements.
- 5.9.14. It may be possible to trigger more than one jackpot level simultaneously on a multi-level jackpot system on any given play to the same player. Each win on a level may be combined into one prize; however, all audit information must clearly show the win and contribution for each level.
- 5.9.15. The jackpot controller must, if not integrated with CEMS for example, conform to Australian/New Zealand Gaming Machine National Standard requirements for cabinet and logic area security as applicable.
- 5.9.16. The jackpot controller must protect the parameter set configuration values and variables and recalculate the appropriate trigger variables (i.e. pick a new randomly selected mystery trigger value in the range of the current prize amount and the ceiling amount) if it detects any security breach. This must be done after every detected jackpot controller cabinet access.
- 5.9.17. All jackpot and win events must be date and time-stamped.
- 5.9.18. Date and time information may be synchronised, as a minimum, with one of the linked gaming machines.
- 5.9.19. Real Time Clock use and setting must be in conformance with the requirements of the Australian/New Zealand Gaming Machine National Standard.

5.10. Audible Alarm

- 5.10.1. When a jackpot win occurs, a prominent audible alarm/fanfare must sound.
- 5.10.2. The alarm must have a volume control easily identifiable and able to be adjusted separately from other sounds.

5.11. Jackpot System Equipment – Hardware and software

- 5.11.1. Component(s) not contained within a linked gaming machine cabinet must be stored within a lockable, secure jackpot cabinet such that they are not accessible by unauthorised site staff or players.
- 5.11.2. Jackpot cabinets may be stored within a cashbox cabinet area provided there is a separately keyed locked barrier between the cashbox and jackpot controller.
- 5.11.3. All jackpot controller cabinets must be sealed
- 5.11.4. Jackpot cabinets must be accessible to allow the inspection of seals.
- 5.11.5. The power supply to the controller and connected displays must not be able to be accessed by players.
- 5.11.6. All exposed cables must be enclosed in plastic conduits to prevent tampering.
- 5.11.7. A jackpot system must have a unique name. This does not prevent the jackpot being marketed under other names.
- 5.11.8. The lockable secure cabinet and/or each separate component in the jackpot system must have a secure label affixed showing the following information:
 - i. Link Jackpot System Name
 - ii. Manufacturer Manufacturers Name
 - iii. Unit Function Unit Function Name
 - iv. Approval Number #####
 - v. Serial Number Unique serial number
- 5.11.9. Components such as generic displays and cabling need not be labelled.
- 5.11.10. Linked jackpot equipment must not be capable of affecting the outcome of a game on a gaming machine to which it is linked.
- 5.11.11. Jackpot systems must not have the capability to download software or parameter values remotely (off-venue).
- 5.11.12. All software including any approved jackpot parameter set must be securely stored in EPROM or other PSD.
- 5.11.13. The jackpot controller may provide a facility to authenticate the validity of the jackpot controller software including the configuration parameters. The following methods are recommended:
 - i. comparison of installed software against the approved software such as an EPROM verification.
 - ii. provision of a facility to perform a signature verification.
- 5.11.14. Signature algorithm and signature display requirements must comply with the Australian/New Zealand Gaming Machine National Standard as applicable.

- 5.11.15. Prior to the first jackpot and upon a RAM clear, a jackpot system must allow configuration of the start-up and overflow pool values in accordance with the transfer of the current pool value from a decommissioned or faulty jackpot.
- 5.11.16. Jackpot system documentation must be provided as per applicable Australian/New Zealand Gaming Machine National Standard requirements.

5.12. Jackpot Shutdown

- 5.12.1. It must not be possible for the jackpot to be won while in the shutdown state. A jackpot shutdown should require:
 - i. all contributing gaming machines to have their jackpot feature disabled; and
 - ii. all displays of jackpot information provide clear indication that the jackpot is not operating (e.g. by saying “Jackpot Closed” or “Jackpot Unavailable”).
- 5.12.2. Activation of the jackpot from the shutdown state must return the jackpot with the identical parameters as that before the shutdown including the jackpot current pool values and trigger values for mystery jackpots.
- 5.12.3. Contributions received (except unreasonable contributions), for example, during a shutdown period, gaming machine disconnection and missed packets etc, are not to be added to the jackpot pool or pools. These contributions may be added to a gaming machine non-contribution meter.

5.13. Jackpot Update and Display

- 5.13.1. A meter display, displaying jackpot details (e.g. current value and indication of a jackpot win), must be readily visible to all players playing a gaming machine connected to the jackpot equipment without the player having to move significantly from the normal position of playing a gaming machine (e.g. the player should not have to turn 180 degrees to their rear to view a display).
- 5.13.2. Use of an on-screen overlay display (OSD) on a linked gaming machine is permitted providing game play and/or artwork information and/or gaming machine protocol monitoring information:
 - i. is not obscured; and
 - ii. any change in visibility is not such that the display visibility becomes non-compliant with the standard under which it was approved.
- 5.13.3. The display of the current amount of the jackpot(s) must be updated accurately and as often as possible so as to reasonably reflect the current size of the prize pool. When a jackpot prize is won, the display must ‘catch up’ to the precise value of the jackpot won.

- 5.13.4. If a jackpot display controller loses communication, then to avoid displaying aged or possibly incorrect current amounts, the display may timeout after 30 seconds.
- 5.13.5. If the jackpot controller loses communication to the primary jackpot display, and all other methods of displaying the current jackpot amount to participants of the jackpot have stopped operating, the jackpot must be shutdown.
- 5.13.6. Jackpot displays must show the latest win of the jackpot including amount won and the winning gaming machine number in an unambiguous format until the jackpot is reset.
- 5.13.7. Artwork must conform to Australian/New Zealand Gaming Machine National Standard requirements as applicable.
- 5.13.8. If gaming machines on a jackpot system remain in play during a jackpot win animation/jackpot notification, then the jackpot display system must be able to display two or more win animations/jackpot notifications in close succession without causing confusion.
- 5.13.9. On power up, a jackpot display system must not display current amounts until the current amounts have been updated by the jackpot controller.
- 5.13.10. The current amounts of the jackpot prize pool must be displayed to all players of the jackpot system during jackpot play except:
 - i. during idle animations which can be displayed for no more than 45 seconds in every 5 minute period;
 - ii. during win animations which can be displayed for no more than 30 seconds per win⁹; and
 - iii. after a win animation, when it is acceptable to cycle short win messages with current amounts, until the win is paid.

5.14. Jackpot Win Notification and Reset

- 5.14.1. It must be automatically clear to a player upon winning a jackpot that they have won and what prize they are eligible for. As a minimum the following indications are to be present when a jackpot prize is won:
 - i. An audible alarm;
 - ii. A visual indication of being eligible for the win on the winning gaming machine; and
 - iii. A visual indication of the winning prize and winning gaming machine ID on the main jackpot display, unless the prize information on the display is available on all the participating gaming machines.

⁹ This is to avoid a situation where there is a backlog of win animations

- 5.14.2. Any win message downloaded to the gaming machine must in turn be verified with the controlling device as having been received and that the amount received is correct.
- 5.14.3. As a minimum it is recommended that where possible every stage through which the win notification is transferred should be protected using error detection, error recovery and state recovery.
- 5.14.4. The time taken for a jackpot to reset after a jackpot win event should, as a minimum, not be less than the longest time taken to:
 - i. announce the win on the display;
 - ii. be of a period long enough that all players are advised of the win; and
 - iii. notify the winning gaming machine and verify, if verification functionality is provided, the amount received.
- 5.14.5. Play may be disabled or interrupted on the winning linked gaming machine to sound a win fanfare and display a win message on that gaming machine.

5.15. Master and Slave Jackpot Controllers

- 5.15.1. Communication between Masters and Slaves must meet all of the communication requirements for linked gaming machines and other components of a jackpot system.
- 5.15.2. All Slave Controller date/times must be synchronised with the designated Master Controller.
- 5.15.3. If supporting a Mystery Jackpot, the priority of receipt of contributions from all gaming machines, whether from Master or Slave controllers, should be virtually identical.

5.16. Jackpot Parameters

- 5.16.1. A manually settable flag may be provided such that if the flag is set to on when a jackpot or level is to be modified or closed, the jackpot or level is shutdown after the current jackpot is triggered.
- 5.16.2. A set of jackpot parameters must include the following detail for each jackpot level as a minimum:
 - i. Jackpot Minimum(s) - the Base or Reset amount(s) and how it is funded when a non-zero start-up value is specified.
 - ii. Jackpot Maximum(s) and what happens to any excess contributions.
 - iii. Jackpot Contribution Rate(s) as a percentage of the amount bet.
 - iv. Jackpot Diversion Pool percentages and limit(s), if any.
 - v. How the jackpot is reconciled against linked gaming machine turnover contributions.

- 5.16.3. Changes to a parameter set comprising start-up value, maximum win value, and increment rate for a jackpot or level, is only permitted following a full RAM clear.
- 5.16.4. Any changes to jackpot parameters must be via secure access using a secure methodology.
- 5.16.5. To ensure the correct gaming machines are enrolled on the jackpot system (thereby preventing a jackpot going to the wrong gaming machine or jackpot display system), the jackpot system may have a set-up mode available at any time which allows each linked gaming machine or jackpot display system's serial/identification (ID) number to be displayed or printed and cross checked with its corresponding gaming machine venue ID and jackpot ID.
- 5.16.6. Jackpot amounts are to be stored in absolute rather than in terms of the number of plays of the jackpot.

5.17. Simultaneous Jackpot Winners

- 5.17.1. The jackpot design must be such that the occurrence of two or more players winning the same jackpot pool prize simultaneously is not possible or statistically of a very low occurrence. A simultaneous win is a win triggered by more than one gaming machine during the period before the jackpot display has indicated a win to the first gaming machine and/or reset jackpot level amounts to the new pool values.
- 5.17.2. The jackpot controller must correctly allocate the win to one gaming machine only. It is sufficient that the winning gaming machine is identified as the first gaming machine processed by the jackpot controller. The second and other machines are to be awarded the jackpot reset value 10
- 5.17.3. An 'event' should be generated for a simultaneous win where a win is registered by another gaming machine before the jackpot system has reset the jackpot level amounts to the new jackpot pool value.

5.18. Jackpot Audit and Event Data

- 5.18.1. For the last 100 jackpots won, the jackpot controller must store and maintain, with a date and time stamp, the following software meters for each jackpot level:
 - i. History of individual jackpots won including the unique identification number of the winning linked gaming machines i.e. jackpot identification number. (JIN)
 - ii. Total amount played for jackpots.

¹⁰ Where a gaming machine is awarded the jackpot reset value under a simultaneous win event condition, the value awarded is to be regarded for audit and reconciliation purposes as a jackpot win.

- iii. Total amount of jackpots won.
 - iv. Total jackpot contributions.
 - v. Current amount of jackpot.
 - vi. Actual start-up jackpot value if different to parameter set start-up value
 - vii. Number of times the logic area(s) have been accessed.
 - viii. Current value of jackpot contributions diverted.
- 5.18.2. All jackpot systems must be fully auditable. The jackpot system must maintain complete audit trails, event logs and accounting meters.
- 5.18.3. An 'event' is any change in activity or status, if not specifically included in this document, such as a fault, security, communication and jackpot operation, the detail of which is necessary to aid in any subsequent audit and/or investigation as to the correct operation and integrity of the jackpot including contributions received and prizes paid.
- 5.18.4. All jackpot system current amounts must be fully reconcilable from meters (e.g. contributions, hits and wins per linked gaming machines etc) stored in the jackpot system.
- 5.18.5. All parameters, audit trails, variables, and events relating to at least the last 100 jackpots won must be stored in the jackpot controller.
- 5.18.6. For auditing and monitoring purposes, an external jackpot controller must provide an isolated serial communication port interface for connection to a PC. Jackpot interfacing software able to be utilised on a PC able to interface and access controller audit data must be made available.
- 5.18.7. The protocol design specification used to request and retrieve audit data must be readily available upon request.
- 5.18.8. In audit mode or when audit information is downloaded, it must not be possible to alter any meters or status conditions (other than audit status) or other sensitive parameters.
- 5.18.9. It must be possible to reconcile contributions from each linked gaming machine with total contributions received by the jackpot controller via the audit interfaces.
- 5.18.10. If the jackpot controller and jackpot trigger device are not the same component, then it must be possible to reconcile total contributions received between the two components via an audit interface on each of the devices
- 5.18.11. It is recommended that as a minimum, the following information is to be retrievable from the jackpot system audit interfaces upon request:
- i. The current date and time.
 - ii. The last 100 jackpot wins showing jackpot level and gaming machine jackpot identification number.

- iii. The meter value of all individual linked gaming machine contributions received.
- iv. The meter value of all individual linked gaming machine contributions not added to the jackpot pool.
- v. Current display meter value per jackpot level.
- vi. Pool overflow meter value per jackpot level.
- vii. All jackpot parameters such as:
 - (a) Start-up (in \$)
 - (b) Ceiling (in \$)
 - (c) Percentage Increment (%)
- viii. Date and time of the last parameter change.
- ix. Any available optional event data for jackpot and linked gaming machine status.

5.19. Critical Memory Error Detection

- 5.19.1. All jackpot system contributions received, all variables pertaining to the current jackpot pool or pools, hidden values, jackpot trigger, paid wins, and all jackpot parameter changes are to be regarded as critical data and must conform to the requirements of section 3 of the Australian/New Zealand Gaming Machine National Standard Version 1011 as applicable.
- 5.19.2. It is recommended that the jackpot trigger program be validated against possible corruption upon every power up, logic door closures, parameter changes and periodically (at a minimum once a day) by comparing it with the previously saved or hard-coded program digital signature.

5.20. Jackpot Supplementary Monetary Prize

- 5.20.1. It is permitted for a linked progressive jackpot system to additionally award Supplementary Monetary Prizes (SMP) in conjunction with the awarding of a standard jackpot prize upon the occurrence of a jackpot prize pool trigger event, providing:
 - i. all preceding requirements apply to the award of SMP as for a main jackpot prize, unless modified or excluded by the requirements of this section;
 - ii. SMP can only be awarded to contributing EGMs that are part of the linked jackpot arrangement;

¹¹ When the National Standard is updated to version 11 or later it is intended that the most recent requirements specified in that document will be met.

- iii. only one SMP can be awarded to an EGM for any one jackpot prize pool trigger event;
 - iv. any SMP and associated jackpot prize awarded must be electronically downloaded directly to EGMs;
 - v. excluding any SMP, the minimum jackpot prize able to be won on any one level is not less than \$500;
 - vi. the SMP must be either a preset non-variable fixed dollar amount of not more than \$50, or a progressive amount of not more than \$50; and
 - vii. the number of individual SMP that can be awarded for any one jackpot prize pool trigger event must not exceed 5 in total.
- 5.20.2 A jackpot level must include in any maximum win values or other calculations, as appropriate, the value of preset maximum SMP such that:
- i. the effective increment rate of a jackpot prize pool includes any contributing percentage required to fund the maximum SMP including any start-up value; and
 - ii. the self audit check includes SMP data as necessary for reconciliation.
- 5.20.3. An EGM eligible to be awarded a SMP must:
- i. not be the EGM that triggered the jackpot prize pool;
 - ii. be in play at the time the jackpot prize pool is triggered; or
 - iii. if not in play, have contributed to the jackpot pool no later than 30 seconds preceding the jackpot trigger event; and
 - iv. be selected randomly from those EGMs eligible to be awarded a subsidiary prize if more than 5 EGMs are eligible.
- 5.20.4. The approved set of jackpot parameters for each jackpot level must include details of the number of SMP including the maximum preset and start-up values.
- 5.20.5. If a jackpot system awards SMP, the minimum advice which must be displayed includes:
- i. how many SMP are able to be awarded;
 - ii. the individual maximum value of any SMP;
 - iii. the start-up value of SMP (if a progressive amount);
 - iv. the basis of EGM selection; and
 - v. a statement that an EGM not played up to 30 seconds prior to a jackpot being triggered may be awarded SMP.
- 5.20.6. If a jackpot system awards SMP, it is optional to display:
- i. the current value of any or all SMP; or
 - ii. SMP wins on the main jackpot display or any participating EGM.

- 5.20.7. Jackpot audit and event data must include the history of each individual SMP won in addition to the requirements of standard 1 in section 16 of this document.
- 5.20.8. For the purposes of accounting reconciliation, the total value of any SMP awarded may be included in the actual total jackpot prize paid for any level providing any event or other data clearly identifies each SMP awarded.

6. TITO Requirements

- 6.1.1. The Ticket based gambling requirements are set out in Appendix 1.

7. Promotional System

7.1. Introduction

- 7.1.1. The secondary promotional reward area requires further consideration as part of this consultation process. The Department will carefully consider all feedback received. It is still to be determined whether there should be any limitations on aspects of the time based increment award, bonuses, speed and accumulation of reward, the reward of free play promotional credit rewards instead of cash payouts or any other form of reward together with any additional requirements for the targeting of marketing initiatives.
- 7.1.2. The technical requirements specified below for comment are incorporated on the basis of SkyCity Auckland's application for the making of minimum standards to implement the new proposed system. This application remains subject to the consultation and approval process.

7.2. Requirements

- 7.2.1. A promotional system is any system that in part provides promotions activity so that players can earn promotional credits based on gaming machine or gaming table play and/or allows promotion credits to be transferred to a gaming machine or exchanged for promotional chips as playable credits for normal gaming play.
- 7.2.2. A promotional system can also include promotions not specifically related to actual gaming or table play or that require actual play to redeem promotional credits for cash or merchandise.
- 7.2.3. A promotional activity may only be offered subsequent to having followed a comprehensive review by a casino in terms of its Host Responsibility Programme as approved by the Gambling Commission.

- 7.2.4. Promotional credits can only be awarded subject to a promotional activity. They cannot be purchased directly by cash or an equivalent form of cash payment.
- 7.2.5. Entry to promotional activities requiring actual gaming machine or table play must require use of a player card (eg a player loyalty or reward card) uniquely associated with a player's promotional account.
- 7.2.6. Any play or use of a gaming device that causes promotional credits to be awarded must be recorded by the CEMS and Promotional System indicating the player ID, gaming machine ID, amount, type of promotional credit and date/time.
- 7.2.7. It has been proposed by SkyCity that promotional credits can be categorised as restricted, which must only be wagered on gaming machine or table play; and non-restricted, which may be redeemed for cash or merchandised.
- 7.2.8. Use of restricted credits may sometimes be referred to as free play or free play credits. The use of restricted credits for table or gaming machine play is considered as cash-in for play and not as a gaming machine or table prize.
- 7.2.9. Restricted credits must either be exchanged for exclusive promotional chips for table play or downloaded direct to a gaming machine for play on a gaming machine.
- 7.2.10. Unused promotional chips can only be exchanged for the same number of restricted credits used for their purchase. Unused restricted credits that have been downloaded to a gaming machine must be uploaded at the end of play.
- 7.2.11. Any new or upgraded gaming machine game approved 6 months after the date of Gazette of this standard must allow upload of unused promotional credits. Existing software that is not capable of uploading unused restricted credits may only download restricted credits on a one for one basis corresponding to turnover credits directly funded by the player by cash or ticket in during a session of play.
- 7.2.12. A promotional system where a promotion involves gaming machine or table play or access must log all promotional activity including changes to parameters that impact on any individual promotion including availability such as any restrictions e.g. method of draw applicable to a promotion, contributing gaming machines or tables involved, prize amount of promotion and promotion credits transferred to a player. Note it is assumed that a player must have and be using a loyalty card to access any promotion and/or reward.
- 7.2.13. Any promotional credit transfer transaction to or from a gaming machine and available for play must be by Electronic Funds Transfer and must be recorded by the CEMS and Promotional System. The transaction data recorded must as a minimum include the player ID, gaming machine ID, amount, type of promotional credit and date/time.
- 7.2.14. Where a promotional activity or transaction makes use of a gaming machine to display, control or allow play on an external promotional feature utilising for example a gaming machine device buttons and screen display, then this

must not interfere or compromise any display and play of approved base game or game information that is in progress of being played. For example resizing of the display shall not cause the game played and/or game information to no longer comply with the NS requirements under which the game was approved.

- 7.2.15 A promotional activity or transaction should not automatically be displayed such as to interfere with a game currently in progress and/or cause confusion to a player.
- 7.2.16 Any promotional activity or transaction should be clearly identified by the player from the normal game play activity of a gambling device. Note normal game play includes turnover funded stand alone and linked progressive jackpot play.
- 7.2.17 Any additional equipment and software installed in a gaming device for the purpose of allowing promotional activity or transaction such as for example a player promotional account and bonus information display must not compromise the integrity of a gaming machine hardware and/or software approval.
- 7.2.18 It is the responsibility of the Promotional system to accurately determine promotional credits won, cashed out including purchase of merchandise, or converted to promotional chips or restricted credits transferred to a gaming device. Note only restricted credits can be transferred to a gaming machine or exchanged for promotional chips.
- 7.2.19 The CEMS should ensure that any restricted credits transferred or uploaded between the promotional system and a gaming machine are correctly transferred to and from the correct gaming machine and confirm a successful transfer with the promotional system.
- 7.2.20 Any promotional activity must conform to the requirements of NS where a Random Number Generator ("RNG") is utilised.
- 7.2.21 A player's promotional account such as a player's loyalty account, must distinguish, log and provide an adequate audit trail for all:
 - i. promotional activities and promotional play entered including any promotion credits and type of promotional credits earned; and
 - ii. promotional credits activity such as promotional credit download/upload from a gaming machine, exchanged for promotional chips, promotional chips redeemed and promotional credits exchanged for cash or merchandise.
- 7.2.22 A player's promotional account must distinguish, log and provide an adequate audit trail for
- 7.2.23 A CEMS must distinguish, log and provide an adequate audit trail for all promotional activities by a gaming machine and table and any promotion based credits transferred electronically to a gaming machine.
- 7.2.24 A CEMS must accurately account for all promotion transactions from each contributing gaming machine.

- 7.2.25. Any promotional credits transferred to a gaming machine must be separately identified and metered by the gaming machine.
- 7.2.26. Any transfer of promotional credits to a gaming machine must be configurable to allow limit of transfer to players credit meter or bonus play.
- 7.2.27. Either in gaming machine artwork or by notice posted conspicuously in the gaming machine area a notice of the availability of rules for all promotion based activity or available transactions involving a gaming machine or table. The rules shall be available on request. That is a player should clearly be able to identify any gaming machine or table involved in any promotional activity and/or able to be used to download promotional credits.
- 7.2.28. A gaming machine must be able to log and record the last 25 promotional transactions received from the CEMS and the last 25 promotional transactions transmitted to the CEMS.
- 7.2.29. If communication is lost between any promotional system, CEMS and gaming machine or table then promotional transfers must not be processed and the player is informed.
- 7.2.30. The promotional based system must be able to produce logs and data for all complete promotional activity by promotion, contributing gaming machine or table and that this is able to be accessed by search and reporting software as required by the section in this Standard titled Search and Report Functions (Note see CEMS search and reporting requirements).
- 7.2.31. A player must be able to request and access a complete and comprehensive report of all Promotional transactions concluded both summary and individual transaction.
- 7.2.32. The Department is considering whether a Minimum Standard is required to cover aspects of the voluntary pre commitment system proposed.

7.3. Card Reading

- 7.3.1. There should be secure method for player loyalty card reading and security.

Appendix 1

Ticket based Gaming (TITO)

Please refer to the *New Zealand Gazette* No 79 dated 29 June 2004 titled Notification of Approval of Casino Games and the Rules of those Games under Division III – Electronic Gaming Machines. The following sections of this notice are included for reference.

5A.0 Ticket-based Gaming

A casino operator may not operate, or allow to be operated, any gaming machine in a casino that is able either to accept tickets in terms of rule 3.4A, or to pay credits or winnings by printing a ticket in terms of rule 4.2, or both (“ticket-capable gaming machine”) unless the following conditions are complied with:

- (a) the number of ticket-capable gaming machines in the casino shall not exceed the lesser of 300 or 25% of the approved gaming machines on the casino premises;
- (b) no ticket-capable gaming machine shall be able to accept a ticket with a denomination or value greater than \$500;
- (c) no casino employee or ticket-issuing machine or other device (other than a gaming machine paying credits or winnings by means of a ticket under rule 4.2) shall be able to issue a ticket with a denomination or value greater than \$500;
- (d) all credits or winnings paid by a gaming machine by printing a ticket under rule 4.2 shall be paid out on a single ticket;
- (e) all tickets issued by a casino operator for use in gaming on ticket capable gaming machines shall have printed on them in legible type the name and current 0800 telephone number of the Problem Gambling Helpline, or such other information relating to harm minimisation as the Authority may reasonably require; and (f) no ticket-capable gaming machine shall be able to offer a game with a denomination of less than 20 cents.

C.4. TICKET VALIDATION SYSTEMS USED IN TICKET OUT TICKET IN GAMING MACHINES

C.4.1. Introduction

A ticket validation system may be entirely integrated into an approved CMCS or be part of a Cash Control System. The system must be capable of recording all ticket in and ticket out transactions for reconciliation purposes.

C.4.2. General

C.4.2.1 Ticket Limits

Subject to all relevant rules and specifications, ticket limits may be set by the casino operator in accordance with approved procedures or minimum operating standards. These limits in dollar values may only be set, or changed, by either a down-loadable parameter from the CMCS or by accessing the logic area of the gaming machine.

C.4.2.2. Metering

A gaming machine which contains a banknote acceptor device which also accepts tickets must maintain sufficient metering to be able to report the following:

- a. total monetary value of tickets accepted (Tickets In);
- b. total monetary value of tickets issued (Tickets Out).

C.4.2.3 Invalid Ticket Notification

The validation system or CMCS must have the ability to identify these occurrences and reject the ticket from a gaming machine and/or prevent it from being paid at a Cashier Terminal:

- a. Serial number cannot be found on file (stale date, forgery, etc.);
- b. Ticket has already been paid; or
- c. Amount of ticket differs from amount on file (requirement can be met by display of ticket amount for confirmation by cashier during the redemption process).

C.4.2.4 Offline Ticket Redemption

If the on-line data system temporarily goes down and validation information cannot be sent to the validation system or CMCS, an alternate method of payment for cashing printed tickets shall be applied by the Cashier as per internal control procedures.

C.4.2.5 Reporting Requirements and Ticket Reconciliation

- a. All Ticket In and Ticket Out transactions will be validated by a CMCS or Cash Control System. A record will be kept of all transactions and reports will be produced which will be reconciled with all validated/redeemed tickets for each gaming day.
- b. At a minimum, reports will include a summary of:
 - i. Tickets Issued,
 - ii. Tickets Redeemed,
 - iii. Tickets Outstanding,
 - iv. Change in Cash Desk Liability.

C.4.2.6 Database and Validation Component Security

- a. Once the validation information is stored in the database, the data may not be altered in any way.
- b. The validation system database must be encrypted or password protected and should possess a non-alterable user audit trail to detect unauthorized access.
- c. Further, the normal operation of any device that holds ticket information shall not have any options or method that may compromise ticket information.
- d. Any device that holds ticket information in its memory shall not allow removing of the information unless it has first transferred that information to the database or other secured component(s) of the validation system.

C.4.3. Cashier/Change Booth Operation

All validation terminals shall be user and password controlled. Once presented for redemption, the cashier shall:

- a. i. Scan the bar code via an optical reader or equivalent, or
ii. Input the ticket validation number manually; and
- b. Print a validation receipt, after the ticket or tickets (if a patron presents multiple tickets) is or are electronically validated.

C.4.3.1. Validation Receipt Information

The validation receipt, at a minimum, shall contain the following printed information:

- a. Machine number/s;
- b. Validation number/s;
- c. Date and Time paid;
- d. Amount/s;
- e. Total Number of Tickets;
- f. Total amount to be paid;
- g. Cashier Identifier;
- h. Place for Cashier and Guest to sign to acknowledge payment (this will not be required if payment is through an approved remote cashier device).

