

KHRC 3-030-3 (11/2018)

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KENTUCKY HORSE RACING COMMISSION TOTALIZATOR STANDARDS

This document serves as official notice of minimum internal control standards, policies and procedures to be met by totalizator companies and racing associations that desire initial and continual licensure from the Kentucky Horse Racing Commission (the "Commission") to provide totalizator services to racing associations and simulcast facilities in the Commonwealth of Kentucky as provided by KRS 230.260(3).

Any revisions to these Totalizator Standards will be sent to licensees at their most current address on record with the Commission. A current copy of these standards is on file at the main office of the Commission and is available for inspection during normal business hours. It is also available online at <http://khrc.ky.gov>.

TOTALIZATOR STANDARDS

I. INTRODUCTION

A totalizator system can be relied upon only if it has an adequate system of internal controls. The Commission has adopted a set of standards for licensees in order to increase its level of confidence in the accuracy and integrity of the totalizator equipment, programming, maintenance services, and/or operations conducted in the Commonwealth of Kentucky. As the totalizator system encompasses hardware, software, communications equipment, electronic devices and personnel, the totalizator standards address all of these subjects as well as the operating environment.

II. TOTALIZATOR STANDARDS DEFINITIONS

Account – An account for telephone account wagering or advance deposit account wagering through which the account holder can place pari-mutuel wagers on horse races in the Commonwealth of Kentucky.

APmWE – Authorized pari-mutuel wagering entity.

Firmware - The system software permanently stored in a computer's or ticket issuing machine's (TIM) read-only memory (ROM) or elsewhere in the circuitry. Firmware cannot be modified by the user.

Intelligent Terminals - Terminal or peripheral devices which contain code which extends beyond that which is necessary to allow the terminal to communicate with the central controlling device to which it is directly attached or to control the presentation of data on the display unit of the device.

Major Revision - A specific release of a hardware or software product. Major revisions include, but are not limited to, items such as additional functionality, major user interface revisions, or other program changes which significantly alter the basic functionality of the application.*

Minor Revision - An incrementally improved version of hardware or software, usually representing errors (bug fixes, or minor improvements) in program performance, without altering basic functionality.

Performance - A specified number of races on a given race day that constitutes a full card of racing.

Wagering Device – A piece of equipment through which pari-mutuel tickets may be purchased or redeemed.

*from Computer Users Dictionary (Que Books, 1990)

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Section 1. General Management Standards

The basis for totalizator internal controls is the management control system used by the totalizator company over all its totalizator operations. Therefore, documentation of the

management philosophy recognizing the importance of general computer controls is required. This management control philosophy shall include formal written procedures for totalizator operations and documentation that these procedures are being followed. The following is an outline of the management procedures and documentation needed by a totalizator company to fulfill minimum organizational internal control requirements.

(A) Programming.

- (1)** A totalizator company shall develop and maintain written procedure manuals that outline structured programming methods used by the programmers. The manuals shall give the programmers sufficient information to understand the programming methodologies, base operating systems and maintenance procedures.
- (2)** The totalizator company shall develop and maintain a written Systems Development Life Cycle (“SDLC”) that requires sign-offs at pertinent checkpoints. The SDLC shall address the following or the equivalent as acceptable to the Commission:
 - (a)** A procedure for accepting written requests for system design or major program changes from users and a method for handling and recording these requests;
 - (b)** The feasibility study stage;
 - (c)** The general systems design stage;
 - (d)** Detailed systems specification;
 - (e)** Program testing;
 - (f)** System testing;
 - (g)** Conversion; and
 - (h)** Systems acceptance by the totalizator company.
- (3)** A totalizator company shall develop and follow procedures to manage all program changes without regard to the complexity of the modification. The procedures shall at a minimum:
 - (a)** Establish controls to prevent unauthorized and potentially inaccurate program changes from being incorporated into the production environment;
 - (b)** Regulate both scheduled and emergency changes to ensure the integrity of the computer system;

- (c) Permit revision of computer programs only after receiving a written or electronic request from a user, submitted on a sequential, pre-numbered numbered change request form which is maintained;
 - (d) Require program changes to be developed, tested and compiled only in a test environment that is not connected to an online totalizator network;
 - (e) Require all program changes to be thoroughly tested, reviewed and approved by a totalizator company supervisor before being placed into operation; and
 - (f) Maintain a written or electronic log to be made available to the Commission upon request when programmers have physical access to the totalizator room or electronic access to the operation environment.
- (4) Before a totalizator company may place a major programming revision into production or transfer any data affected by the revision from the test environment to the production environment, the totalizator company shall follow the procedures for Changes to Totalizator Software found in Section 4(D).

(B) Totalizator Operations.

A totalizator company shall maintain a written operations manual for the totalizator system in the tote room. The manual shall clarify the authority, duties, responsibilities, and lines of communication for totalizator operators and network managers. The manual shall contain sufficient detail to ensure that totalizator personnel understand their job duties. The operations manual shall include complete documentation for the operation of the totalizator system and its software, including at a minimum:

- (1) The duties described in the Personnel Requirements section;
- (2) Clearly defined restrictions for totalizator room access;
- (3) General block diagrams of program options (menu tree) available to totalizator operators;
- (4) A glossary of terms used in reports, including formulas for calculating the displayed results;
- (5) The relationship, if any, between information contained in reports;
- (6) Start-up and shut down procedures;

- (7) General operating procedures;
- (8) Restart and recovery procedures; and
- (9) Emergency procedures, including a list of individuals to notify if a system requires an emergency revision.

Section 2. Personnel Standards

The purpose of the Personnel Standards Section is to ensure that the personnel who program, manage, operate, and maintain the totalizator system are competent and knowledgeable and perform their duties in such a way as to preserve the integrity of horse racing and pari-mutuel wagering thereon.

(A) Personnel Requirements.

- (1) All totalizator personnel assigned to work on totalizator operations in the Commonwealth of Kentucky shall be licensed by the Commission.
- (2) The totalizator company shall provide the necessary personnel to perform the duties described in these standards. The totalizator company shall employ a sufficient number of personnel to ensure that an adequate segregation of duties between the personnel performing the network manager, programmer, systems analyst, totalizator operator, and technician duties. The totalizator company may use different job titles from those in the Totalizator Standards.
- (3) The totalizator company shall have procedures and documentation which demonstrate the verification of the totalizator position applicants' experience and education as indicated on their job applications. The totalizator company shall prescribe and maintain job descriptions containing the experience, education, and organization training requirements for each of the following positions:
 - (a) Network manager;
 - (b) Programmer/software engineer;
 - (c) Systems analyst;
 - (d) Totalizator operator; and/or
 - (e) Technician.

- (4) The totalizator company shall certify in writing annually that its personnel have read and are familiar with the provisions of the Kentucky Horse Racing Commission Totalizator Standards that apply to their jobs and are otherwise properly trained to program, manage, operate, and maintain the totalizator system. The totalizator company shall provide and document ongoing training for its employees.
- (5) The totalizator company is responsible for the actions of its personnel relating to the operations and use of the totalizator system. The totalizator company shall designate an individual to act as a point of contact for communications between the Commission and the totalizator company.
- (6) A totalizator company employee shall not hold the positions of programmer and totalizator operator, or perform the duties of those positions, simultaneously unless authorized to do so by the Commission.
- (7) A totalizator employee shall not wager when he or she is performing the duties required by their employment.
- (8) The totalizator company shall have a policy of mandatory time away from the job for each totalizator personnel within each calendar year.

(B) Network Manager.

- (1) A network manager shall:
 - (a) Coordinate the totalizator company's totalizator systems operating in Kentucky, or at a specific site in Kentucky;
 - (b) Ensure each totalizator operator follows proper procedures when operating the totalizator system;
 - (c) Determine the on-site and off-site storage locations for the back-up media;
 - (d) Provide information and prepare any report requested by the APmWE, the Commission or the jurisdiction's taxing and finance authority, if appropriate; and
 - (e) Ensure that:
 - (i) A current list of personnel is maintained;
 - (ii) All totalizator operators are qualified; and

(iii) The appropriate pari-mutuel information is maintained within the operating system and application programs.

(C) Totalizator operator.

(1) A totalizator operator shall:

- (a)** Maintain the communication links to the locations to and from which the APmWE is simulcasting and ensure data is transmitted accurately;
- (b)** Consult with the mutuel manager and the Commission, or their duly appointed representatives, if available, when a problem occurs in determining a pool or calculation and suggest alternatives for continued operation, including possible temporary restrictions on or suspension of the communication links;
- (c)** Perform necessary daily performance testing, system initialization, monitoring of wagering operations, and system shutdown;
- (d)** Execute established procedures to shutdown system software and hardware in emergency situations including loss of communication between computers or peripheral devices, power surges or failures, operating with a partial system, and restarting the system during a performance;
- (e)** Perform necessary system maintenance;
- (f)** Perform daily backups;
- (g)** Ensure that information is entered in the tote maintenance log detailing all repairs or modifications to the totalizator system;
- (h)** Provide the Commission with immediate verbal notice of each unusual occurrence during totalizator systems operations and an initial incident report within twenty-four (24) hours of the incident. A final report shall be submitted as necessary, detailing each unusual occurrence during totalizator system operations, including a description of the probable cause of the occurrence and the corrective action taken;
- (i)** Maintain a copy of the incident report or enter information about each unusual occurrence in the system incident log; and
- (j)** Consult with the Commission or duly appointed representative regarding any other operational issues encountered.

(D) Technicians.

(1) Technicians shall:

- (a)** Perform maintenance on wagering devices and the tote board; and
- (b)** Record in the Totalizator Maintenance Log all maintenance and repair activities performed.

Section 3. HARDWARE STANDARDS

The purpose of this section is to ensure that the hardware provided by the totalizator companies operating in the Commonwealth of Kentucky will operate in a manner that provides a reliable platform on which the software can run.

(A) Pari-mutuel system.

- (1)** All racing associations are required to operate with a computerized cash/sell pari-mutuel system.
- (2)** A racing association shall operate a multi-computer or multi-processor system with varying degrees of independence in the transaction processing and system control functions distributed among the computers.
- (3)** The computers shall be configured in such a way that, if one of the computers actively tracking events fails, the other computer can immediately take over all the functions of the failed computer.
- (4)** The totalizator company shall use a monitoring server that records/logs all activity for all users accessing the tote system, regardless of the user's location.

(B) Schematic Chart.

- (1)** The totalizator company shall provide the Commission with an overview of the equipment by providing a detailed schematic chart showing the interconnections of each piece of hardware in the computer system.
 - (a)** This chart shall indicate where appropriate, the part of the database each terminal can access, as well as the amount and degree of access each terminal has to the application and operating system programs.
 - (b)** User assignment shall be determined by access, and the schematic shall reflect usual and potential user types assigned.

- (2) The schematic chart shall be given to the Commission two weeks prior to system installation and testing.
- (3) If the totalizator company changes any component in the hardware or the network layout, it shall revise the schematic chart and submit it to the Commission for approval prior to implementing any change.

(C) Peripherals.

- (1) The pari-mutuel computer system shall contain the following peripherals:
 - (a) A log printer for computers;
 - (b) A master control terminal that allows the operator to execute routine maintenance and operational functions based on individual operator identification/authentication;
 - (c) User terminals that allow the mutuel manager, money room and judges/stewards restricted access. Access via modems or these terminals to the wager processing program or the operating system is not permitted;
 - (d) Wagering information screen displays that meet the requirements of ARCI-004-024G;
 - (e) Data storage devices to record necessary system data; and
 - (f) Backup devices capable of recording complete system information on removable media for storage and restoration.

(D) Stop Wagering Devices.

- (1) The totalizator company shall install two separate devices that activate the stop wagering function of the totalizator system in a manner consistent with stop wagering procedures approved by the Commission.
 - (a) The primary device to issue the stop wagering command during normal operation and activate the “off bell” shall be located in or near the stewards’/racing judges’ stand, in a location approved by the Commission.
 - (b) The secondary “backup” device shall be installed in the totalizator room to allow the totalizator operator to issue the stop wagering command if a totalizator

malfunction or human error prevents the totalizator system from activating the stop wagering function at the appropriate time.

(c) The totalizator company or mutuel department shall ensure that stop wagering occurs.

(d) The totalizator company may request permission from the Commission to utilize additional or alternative stop wagering devices.

(E) Tote Board.

(1) Unless otherwise approved by the Commission, the tote board shall:

(a) Update the odds on each betting interest in the win pool at intervals of not more than sixty (60) seconds, or at more frequent intervals expressly directed by the Commission; and

(b) Allow the stewards or racing judges or a designee of the stewards or racing judges to post the times, order of finish, the official sign, inquiry sign, objection sign, or dead heat sign.

(F) Uninterruptible Power Supply.

(1) The computer system shall be supported by an uninterruptible power supply (“UPS”) to allow for system shut down if a power failure occurs.

(2) In a system shut down, all wagering data in the computer at the time of the failure shall remain intact and all race and end of day reports shall be produced.

(3) The UPS shall be able to supply even power to the totalizator system, for a minimum of fifteen (15) minutes, when a power surge or drop occurs.

(4) An alarm associated with the UPS shall be readily recognizable by the totalizator operator from inside the totalizator room.

(G) Wagering devices.

(1) Wagering devices in a network are not required to be intelligent but shall have identities.

(2) A program related to the production or verification of the wager identification number printed on a mutuel ticket or assigned by the main computer may not reside in a wagering device.

(3) A wagering device shall not access the wagering database except to conduct the wagering or cashing functions.

(4) Wagering shall not occur in the tote room.

(H) Maintenance.

A totalizator company shall provide preventative maintenance to a totalizator system to ensure that the system hardware will provide a high degree of reliability. Maintenance shall include, but is not limited to, physically cleaning the system components and peripherals and testing the UPS for battery life and power stability.

(I) Common Pooling.

(1) An APmWE shall use a totalizator system that operates in either a tote-to-tote network or a wagering device-tote network. The totalizator system shall, without regard to the location of the CPU:

(a) Meet the requirements of this chapter;

(b) Comply with the rules;

(c) Use a version of Inter-Tote Systems Protocol ("ITSP") recognized by the Association of Racing Commissioners International ("RCI") and the standards prescribed by the Commission; and

(d) Use the standard track codes maintained by Comprehensive Horse Racing Information Management System, Inc.

(2) An APmWE may common pool if all equipment used is an approved type and in an approved location.

(3) The pari-mutuel pool host shall provide a totalizator system that:

(a) Directs each totalizator system involved with the common pool regarding the pools offered, live and scratched betting interest, common pool totals, network odds and guest APmWE specific odds and probable payouts, start and stop wagering commands, official orders of finish, deduction and payout calculations; and

- (b) Produces reports showing the amount wagered on each betting interest and pool from each site, in accordance with the current Inter-Tote Systems Protocol or other inter-tote communication standard prescribed by the Commission.
- (4) An APmWE and the totalizator company shall file with the Commission, at the time of license application, a disaster recovery plan that will ensure that the APmWE may continue to conduct pari-mutuel wagering within a reasonable period of time.
- (5) The totalizator company shall follow a method of progressive scanning utilizing ITSP for those wagers with four (4) or more legs.

(J) Emergency procedures.

- (1) The totalizator system shall be supported by a UPS as described in subsection (F) of this section.
- (2) A totalizator company shall have emergency procedures to address a totalizator system failure. The procedures shall apply whether the system is operating as a stand-alone wagering site for separate pool wagering or as a satellite in a common pool network.
- (3) If a hardware problem, excluding routine repair of wagering terminals, occurs the tote operator may make an emergency fix to the totalizator system. The totalizator company shall provide the Commission with immediate verbal notice of any such problem. No later than twenty-four (24) hours after the fix has been made to the totalizator system, the totalizator company shall file a written report with the Commission that states:
 - (a) The situation that caused the need for the fix; and
 - (b) The corrective changes the tote operator made

Section 4. SOFTWARE STANDARDS.

The purpose of the Software Standards section is to ensure that the software provided by the totalizator companies offering totalizator services in the Commonwealth of Kentucky runs within the intended design specifications and meets Commission totalizator system policies and procedures, thereby ensuring the accuracy and integrity of the data generated by the software and of the totalizator system as a whole.

(A) Software Requirements.

- (1)** The totalizator system shall be able to:
 - (a)** Sell, calculate, cash and refund according to the pool profile, current rules, and number of races;
 - (b)** Produce the required reports and logs and other reports and logs the Commission may prescribe;
 - (c)** Accept and store advanced wagers;
 - (d)** Network with the remote wagering sites;
 - (e)** Offer simultaneous wagering cards;
 - (f)** Allow access to program functions and identification of each user based on the user IDs and passwords provided from the operating system or program login, in the case of administrative terminals, or by physical connection to the computer system, in the case of wagering devices;
 - (g)** Automatically maintain all carryover data for the next performance on a rotating basis, including system date and time, without operator intervention;
 - (h)** Be subject to modification only by authorized individuals holding specific user IDs and passwords that allow gateways to the operating system;
 - (i)** Document changes to programs, including who made the change and when the change was made;
 - (j)** Provide software and/or hardware restrictions that eliminate the capability of printing duplicate tickets;
 - (k)** Provide software and/or hardware restrictions that prevent invalid claims on unclaimed funds;
 - (l)** Be able to detect abnormal system operation and the cause - such as a validation problem, communication difficulty, and computer downtime - and immediately notify the totalizator operator;
 - (m)** Generate within the approved time frame data usable across two major revisions, and within all minor revisions or retrieve archived data reports as requested by the Commission;

- (n) Contain a utility program that backs up the totalizator system and schedules these backups at regular intervals;
 - (o) Provide a utility/application that writes requested parimutuel wagering data on media readable by the Commission. The totalizator company shall also provide documentation about the structure of the data; and
 - (p) Have the ability to close remote sites before the post time if the Commission so may determine.
- (1) The operating system shall be separated from the application program. The operating system shall be based on identified individual users and maintain auditable records of those users.
 - (2) The totalizator company shall, upon request, make available to the Commission an inventory of all totalizator system programs included in the system.
 - (3) A totalizator system shall be able to produce, upon request, a copy of all historical data necessary to re-create the wagering activity of any race performance within a three (3) year period.

(B) Documentation.

- (1) Software documentation, using computer software industry accepted methods, shall be available to the Commission upon request and shall provide, at a minimum:
 - (a) Complete documentation of the modules/sections within the source code, detailing the function of the module/section, the definition of all variables used within the module/section, the source of all variables passed to the module, and the method of passing variables (i.e., passed by reference or by value);
 - (b) Complete documentation of all program functions as seen by the end user of the program;
 - (c) A complete inventory of all programs contained on the system, their purpose, the date and time of their last modification, and the size, in bytes, of each file;
 - (d) A clarification of the differences between major and minor revisions of the totalizator software. This clarification shall include:
 - (i) A complete history of all revisions;

- (ii) The intended reasons for and differences between major and minor revisions;
- (iii) The date of implementation; and
- (iv) A listing of the current revision number; and
- (e) Any change in software requiring the assignment of either a new major or minor revision number.

(C) Backup.

- (1) Before beginning operations in the Commonwealth, the totalizator company shall submit a backup procedure plan to the Commission for approval and should include at a minimum:
 - (a) Full system backups made at weekly intervals. Full system backups shall include all files contained on the totalizator system;
 - (b) Incremental system backups made at daily intervals. Incremental system backups shall include all files that were changed since either the last full system or incremental backup; and
 - (c) Backups stored at an off-site storage area in a disaster-resistant environment.

(D) Changes to Totalizator Software.

- (1) All changes to the software on the central site computers, peripherals, or firmware changes downloaded to terminals may be subject to the approval of the Commission or the Commissioner's Supervisor of Pari-Mutuel Wagering.
- (2) The totalizator company is responsible to notify the Commission at least thirty days prior to any major revisions except as provided under (4) of this subsection.
- (3) A major revision to the software shall not be initialized or operated during wagering until tested and approved by the Commission or the Commissioner's Supervisor of Pari-Mutuel Wagering. The daily computer log shall show:
 - (a) When a change was loaded into the totalizator system;
 - (b) The time the work commenced and the time the work was completed; and
 - (c) When the old software was removed from the system.

(4) If a software problem occurs, the programmers may make an emergency fix to the totalizator system. The totalizator company shall provide the Commission with immediate verbal notice of any such problem. No later than twenty-four (24) hours after the fix has been made to the software, the totalizator company shall file a written report with the Commission which states:

- (a)** The circumstances that caused the need for the fix;
- (b)** The corrective changes the programmers made; and
- (c)** The new version number.

(E) Totalizator Network.

(1) Common pools shall be merged and calculated at the site the totalizator company designates as the network-computing center. In a Tote-to-Tote network or at remote sites, the totalizator company providing totalizator services for the APmWE shall use the Inter-Tote System Protocol endorsed by RCI or another inter-tote communication protocol prescribed by the Commission.

(F) Data Transmission Protocols.

- (1)** An APmWE using a wagering device-to-Tote network may use any communications protocol it wishes.
- (2)** A remote site is considered part of a Tote-to-Tote and/or a Terminal-to-Tote network and is subject to the Facility and Equipment requirements contained herein.
- (3)** If the failure to compile pools or payout winning prices is isolated to a remote site, the stopping of wagering or the manual cashing and accounting of tickets need only occur at the affected site. The relevant information shall be transmitted between the CPU and the remote site through the established secured communication link or facsimile machine and shall be verified.

Section 5. REPORT AND LOG REQUIREMENTS

(A) General Requirements.

(1) A totalizator system shall be able to produce reports and logs necessary to audit parimutuel activity and to recreate any given day of wagering in its entirety in a format prescribed by the Commission.

(2) A totalizator company shall retain the information needed to produce these reports and logs on storage devices for at least three years after the end of the calendar year during which the reports and logs were created, unless otherwise released by the Commission.

(3) A totalizator company shall provide a report or log requested by the Commission no later than forty-eight (48) hours, unless required otherwise, after the totalizator company receives the request. A printed report shall have consecutively numbered pages. Each page of the report shall be headed with:

(a) The name of the race track;

(b) The date and time (in hours, minutes, and seconds) the report was produced;

(c) The performance number if applicable;

(d) The wagering sites to which the report refers; and

(e) The version of software in use.

(B) Pre-Race Reports. Unless otherwise exempted by the Commission, before starting wagering each day, the totalizator operator shall print at a minimum all of the following reports:

(1) A "System Initialization Report" showing:

(a) The date and time the system was initialized;

(b) The identity of the totalizator operator initializing the system; and

(c) The software version in use;

(2) A "Configuration Parameter Report" showing:

(a) The pools that may be offered as well as those that are currently operational in the totalizator system;

(b) The display cycle frequency, pools, any minimum pools required, minimum wagers, and means of display of any approximate odds or will-pays produced;

(c) The minimum and maximum value of wagers for every pool that a wagering device may accept;

- (d) Which wagering devices are activated, including a listing of all terminals operational that session/day;
 - (e) Which remote sites may input into the totalizator system;
 - (f) The split percentages and payout parameters for each multi-leg pool offered;
 - (g) Verification of all locking devices;
 - (h) The amount of delay between locking switch activation and the actual stop betting or canceling;
 - (i) The canceling parameters for regular and supervisory wagering devices;
 - (j) Configurations placed on each wagering device;
 - (k) The method of breakage and rounding used in calculating the payout;
 - (l) Takeout percentages for each host site and for the live races including takeout percentages for each association, state and other statutory takeouts used in price calculations including net pool pricing calculations;
 - (m) Federal tax withholding rates and parameters; and
 - (n) Required currency conversion tables;
- (3)** A “Race Information Report” showing for each live race and simulcast performance to be offered:
- (a) The pools to be opened, indicating totals starting at zero and totals starting with money from advance wagering;
 - (b) Pool summaries of all advance wagering;
 - (c) Money added due to overages;
 - (d) Underpayments or money added due to carryovers, miss pools or any other reason; and
 - (e) The betting interest for each race, showing entries and scratches;
- (4)** An “Odds Report” showing the opening line of odds for the win pool; and
- (5)** A “Wagering Device Report” listing the teller’s identity assigned to each wagering device for that session/day if applicable.

(C) Race-by-Race Reports.

- (1)** For each race offered, the totalizator system shall be capable of printing the following reports and have them available for review by the mutuel manager, and/or the Commission:
- (a)** A “Scratch Report” showing the time each late scratch was entered into the totalizator system and the amount of money to be refunded in each pool;
 - (b)** A “Betting Report,” produced immediately on activation of the stop betting command and the final merge of wagering information from all sites, showing:
 - (i)** The amount wagered and to be refunded for each betting interest or combination in each pool offered, and the net amount for each pool to be used for calculating the payout;
 - (ii)** The final dollar odds for the win pool; and
 - (iii)** The time of stop betting and time of each pool transmission;
 - (c)** A “Calculating Price Report,” produced before each race is declared official, showing for each pool:
 - (i)** The winning betting interests or combinations;
 - (ii)** The winning monies in total and for imported hubs;
 - (iii)** The minimum payout prices;
 - (iv)** The breakage;
 - (v)** The amount payable to the public;
 - (vi)** The total amount wagered;
 - (vii)** The total amount refunded;
 - (viii)** The amount added to the pool;
 - (ix)** The actual pool total; and
 - (x)** The takeout in total dollars;
 - (d)** A “Probable Payout Report” showing the payouts for multiple and exotic pools, subject to scratches, cancellations and dead heats;

- (e) A "Scan Report" for multi-leg pools of four or more legs showing:
 - (i) The total wagered in the pool;
 - (ii) The amounts of any carryover;
 - (iii) The winners of completed legs;
 - (iv) The amount of possible winning dollars, based on paying the winner of completed legs combined with every betting interest entered in subsequent legs; and
 - (v) Late scratches in each leg;
- (f) A "Race Summary Report," produced before and after the race results are official, showing the sum for all pools paid out in that race:
 - (i) The amount wagered;
 - (ii) The amount refunded;
 - (iii) The net amount to be used for calculating the payout;
 - (iv) Any money added to the pool;
 - (v) The actual pool total;
 - (vi) The total commissions;
 - (vii) The breakage;
 - (viii) The amount paid to the public;
 - (ix) The carryover balances;
 - (x) The liabilities (due to/due from); and
- (g) A "Daily Summary Report" showing the cumulative totals, for each pool and for all pools combined, of the items listed under the Race Summary Report.

(D) End-of Day Reports.

- (1) For each race offered, the totalizator system shall be capable of producing the following reports and have them available for review by the mutuel manager, and/or the Commission:

- (a)** A “Balance Report” showing for every wagering device operated on that day including:
 - (i)** The teller’s name or identification number, if applicable;
 - (ii)** The total value and number of tickets sold, canceled, and cashed, separating the outs from the current day’s tickets;
 - (iii)** The amount of money drawn from the money room, including the beginning draws;
 - (iv)** The total amount of money returned to the money room; and
 - (v)** A listing of the adjustments made to each wagering device balance after each wagering device has been individually balanced;
- (b)** A “Wagering Summary Report” showing:
 - (i)** By wagering site, the amount wagered, refunded and added for every pool and for each race;
 - (ii)** The time of day each race’s pools closed;
 - (iii)** The commissions deducted, the breakage calculated, and the amount paid out for each pool in each race;
 - (iv)** The total value of outstanding tickets before the pools were opened for the performance, the value of tickets cashed during the performance, the value of tickets to be added to the outstanding ticket total; and
 - (v)** The total value of outstanding vouchers before the pools were opened for the performance, the value of vouchers cashed during the performance, the value of vouchers to be added to the outstanding voucher total, and the new outstanding voucher total;
- (c)** A “System Balance Report” comparing the pool and paid-out totals obtained by processing the transaction files with the pool and paid-out totals obtained from the actual calculations;
- (d)** A “Money Room Balance Report” showing the cash added and subtracted from the beginning day’s balance resulting from the day’s wagering and cashing transactions; and

- (e) An “IRS Report” showing the winner’s social security number, the ticket number, amount won, and taxes withheld for each transaction requiring a Form W2-G.

(E) Other Standard and Special Reports.

(1) A totalizator company shall produce any standard report requested by the Commission no later than seventy-two (72) hours, unless otherwise directed, after receiving the request, including:

- (a) An “Odds Progression Report” showing each successive line of odds from the Win pool and the time it was displayed to the public;
- (b) A “Ticket and Transaction History Report” showing the appropriate portion of the ticket history log for the request ticket identification numbers;
- (c) A “Terminal History Report” showing the portion of the terminal log requested;
- (d) An “Outstanding Ticket Report” showing the following information for uncashed tickets in the totalizator system:
 - (i) The ticket identification number;
 - (ii) The wagers on the ticket;
 - (iii) The date and performance for which the ticket is outstanding;
 - (iv) The value of the winning wagers; and
 - (v) The wagering device location and number;
- (e) An “Outstanding Voucher Report” showing the following information for uncashed tickets in the totalizator system:
 - (i) The voucher identification number;
 - (ii) The date for which the voucher is outstanding;
 - (iii) The value of the voucher; and
 - (iv) The wagering device location and number;
- (f) An “Outstanding Tickets Cashed Report” for a performance, race, or pool, showing each outstanding ticket cashed that day, in the form of the

Outstanding Ticket Report, including the identity of the wagering device that cashed the ticket and an indication as to whether the ticket was cashed using manual keyboard entry or an automatic machine read;

- (g)** A “Manually Cashed Tickets Report” for a performance, race, pool, showing every ticket cashed that day in the form of the Ticket History Report, the identity of the wagering device that cashed the ticket, and an indication as to whether the ticket was cashed using a manual keyboard entry or an automatic machine read as well as a subtotal for each wagering device;
- (h)** A “Canceled Tickets Report” for a performance or race, showing each ticket canceled that day in the form of the Ticket History Report, the identity of the wagering device that cashed the ticket, and an indication as to whether the ticket was cashed using a manual keyboard entry or an automatic machine read as well as a subtotal for each wagering device;
- (i)** A “Network Balance Report” summarizing the activity and liabilities for each site within a Tote-to-Tote network;
- (j)** A “Teller Inquiry Report” showing the time of each cash balance inquiry made by each teller;
- (k)** A “Wagering Report” required for multi-leg pools of four legs or more, showing the amount bet on every combination of the pool and total amount bet;
- (l)** An “Account History Report” showing all activity for each account;
- (m)** An “Inter-Track Wagering Report” for a card showing the separate or consolidated report for wagers made at participating tracks, including all money wagered on each runner or combination of runners in each pool for each race. Separate or consolidated reports for the host track and each satellite track and the combined totals are required and any additional reports, as determined by the Commission;
- (n)** A “Ticket History Report” and “Terminal History Report” in case of a wagering device to totalizator network failure, for specific location(s) and time period(s) in order to determine what wagers have been recorded in the totalizator from the remote site, including any advance bets; and
- (o)** A “Pool Transmission Report” listing time of each pool transmission.

- (2) The Totalizator system shall be able to produce a special report that filters data by performance, race, pool betting interest, wagering device, site or any combination thereof.

(F) Logs (On-Line Logs).

- (1) The totalizator operator shall produce a daily log for the Commission upon request. The totalizator system shall produce at a minimum the following logs in a format prescribed by the Commission:

- (a) A "Teller/Machine History Log" showing for every wagering device operated during a performance:

(i) Each time the wagering device was opened and closed;

(ii) For each wagering transaction, the wagers made, tickets issued, and total value of the transaction;

(iii) For each cashing, canceling, or refunding transaction, the identification numbers of the tickets processed, the wagers paid out, and the value of the wagers paid out;

(iv) For each cashing transaction, an indication as to whether the ticket was cashed using a manual keyboard entry or an automatic machine read;

(v) The amount of each cash draw and return;

(vi) Any special function, including teller balance, accessed through the wagering device; and

(vii) The times of each of the transactions listed in this subdivision were made;

- (b) A "Ticket History Log" showing for every ticket issued:

(i) The identification number of each cashed/canceled ticket;

(ii) The wagering device location and number;

(iii) The wagers and their values;

(iv) The cashing/canceling machine location and number;

(v) The amount paid out;

- (vi) All commands that affect the operating environments issued from the operating system command line;
 - (vii) All commands issued from within the application program in an attempt to access the operating system; and
 - (viii) A listing of every operational or operating terminal during computer operation;
- (f) An “Account History Log” showing for every account:
- (i) The identification number of the Account;
 - (ii) Each time the Account was accessed, the location and time of each access point;
 - (iii) Each wagering transaction, the amount, time, betting interest selected and type of wagers made, the wagering device used to make the wager, and the total value of the transaction; and
 - (iv) Each cashing, canceling, or refunding transaction, the identification numbers of the tickets processed, the wagers paid out, the location and time and the value of the wagers paid out.

(G) Logs (Off-line Logs).

- (1) In addition to the computer generated reports and logs, the totalizator personnel shall maintain at a minimum the following logs for review by the Commission or duly appointed representative:
- (a) A “System Incident Log” including a description of each incident involving the totalizator system, including system failures, their causes, and corrective actions taken;
 - (b) A “Totalizator Room Access Log” of all authorized persons entering and leaving the totalizator central computer room. This includes entries of date, time and user ID of each person entering and leaving the room; and
 - (c) A “Totalizator Maintenance Log” of all maintenance work completed on wagering devices and the main totalizator computers or printers showing:
 - (i) The name of the person performing the work;

- (ii) The date and time of day when the maintenance was performed; and
- (iii) The type of maintenance job(s) performed.

Section 6. FACILITY STANDARDS

(A) Facility Requirements.

- (1) On-site Totalizator Room. An ApmWe shall provide a totalizator room to house the main computing and communications equipment and the operator's terminal at the APmWE facility. The room shall include:
 - (a) Air conditioning with humidity control to maintain a stable environment that meets the specifications of the computer equipment manufacturer;
 - (b) A master power switch that allows all or part of the equipment housed in the room to be turned off in an emergency;
 - (c) A smoke/fire alarm system that sounds locally and is tied into the APmWE's master alarm system;
 - (d) Fire extinguishers to deal with minor electrical fires;
 - (e) An internal communication system connecting the totalizator operator with:
 - (i) The stewards or racing judges (for racing associations only);
 - (ii) The mutuel manager;
 - (iii) Each betting line; and
 - (iv) The Commission's office on site if any;
 - (f) A private outside line for communication with supervisors, programmers, or totalizator personnel at other sites; and
 - (g) Fire resistant, locking storage cabinets to hold removable data storage devices and documents necessary for operating the system.
- (2) Totalizator Room at a Central Processing Location. An APmWE may contract with a totalizator service that uses a central processing location off the APmWE's grounds. The APmWE shall:

- (a)** Provide an on-site totalizator room that satisfies the requirements in subsection (1) of the Facility Requirements;
 - (b)** Ensure that the totalizator central processing location satisfies the requirements of an on-site totalizator room as set forth in subsection (1) of the Facility Requirements;
 - (c)** Ensure that the totalizator processing location has a communications system connecting the central processing operator with:
 - (i)** The totalizator operator at the APmWE's facility; and
 - (ii)** A private outside line for the communication with supervisors, programmers, or totalizator personnel at other sites.
- (3) Totalizator Room Security.** The totalizator room housing the computer processing unit (CPU) that processes wagers made at an APmWE facility shall be secured. Annually, on a date established by the Commission, the APmWE shall submit to the Commission for approval a security plan for the totalizator room housing the CPU that processes wagers made at the APmWE's facility. The security plan shall include:
- (a)** A security system covering the totalizator room and any other related service room, electrical room, or equipment room that consists of locking closed doors and the ability to detect unauthorized entry; and
 - (b)** A system of controlled entry to the totalizator room and other related rooms using:
 - (i)** locking devices on all doors or entry points;
 - (ii)** control over distribution of keys or codes necessary to unlock the doors;
 - (iii)** a sign-in log for visitors escorted by authorized personnel; and
 - (iv)** a system that identifies and records each person entering and leaving the room.