

STATE OF COLORADO

COLORADO RACING COMMISSION TOTALISATOR STANDARDS

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TOTALISATOR STANDARDS NOTICE

This document serves as official notice of minimum internal control standards, policies and procedures to be met by totalisator companies and racing associations that desire initial and continual licensure from the Colorado Racing Commission to do business in the State of Colorado as provided by Rules #12.122 and #12.508 (formerly Rules #2.02:1 and #5.01:4 and definition #1.37 in the Rules Governing Mutuel Departments and Pari-Mutuel Wagering). The statutory basis for these standards is found in sections 12-60-501, C.R.S. and 12-60-502, C.R.S.

Any revisions to these totalisator standards will be sent to licensees at their most current address on record with the Division of Racing Events. A current copy of these standards is on file at the main office of the Division and is available for inspection or purchase during normal business hours.

TOTALISATOR STANDARDS

INTRODUCTION

A totalisator system can be relied upon only if it has an adequate system of internal controls. The Colorado Racing Commission has adopted a set of standards for licensees in order to increase its level of reliance on the totalisator equipment, programming, maintenance services, and/or operations employed in the State of Colorado. As the totalisator system encompasses hardware, software and personnel, the totalisator standards address all of these subjects as well as the operating environment.

TOTALISATOR STANDARDS DEFINITIONS

ASCII Formatted Flat File

A data file containing structured data which is both record and field delimited, that contains only characters found in the American Standard Code for Information Interchange (ASCII) specification.

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.*

Independent Monitoring System

A system approved and licensed by the Colorado Racing Commission to monitor the totalisator system independently to ensure the security and integrity of the wagering process.

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 function of the application.*

Minor Revision

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

* from Computer Users Dictionary (Que Books, 1990)

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GENERAL MANAGEMENT OPERATING STANDARDS

The basis for totalisator internal controls is the management control system required and used by the company over all its totalisator operations. Therefore, documentation of its management philosophy recognizing the importance of general computer controls is required. This management control philosophy must include formal written procedures for totalisator operations and documentation that these procedures are being followed. Following is an outline of the management procedures and documentation needed by a totalisator company to fulfill minimum organizational internal control requirements.

I. Personnel

A. The totalisator company must provide necessary personnel to perform the duties described in these Standards. The totalisator company may use job titles that are different from those listed throughout this document. However, the totalisator company must employ a sufficient number of personnel to ensure an adequate segregation of duties between the personnel performing the manager, programmer, operator, and technician duties.

B. The totalisator company has job descriptions along with experience, education, and organization training requirements for all of the following totalisator positions:

1. Programmers / Software Engineers
2. Systems Analysts
3. Operators
4. Technicians
5. Managers

C. The totalisator company has procedures and documentation that show the verification of totalisator position applicants' experience and education as indicated on their job applications.

D. The totalisator company has a policy of mandatory time away from the job for totalisator personnel or that management is made aware of individuals who have not taken time away from the job.

E. The totalisator company has a policy requiring continuous training for its totalisator personnel and documentation to support compliance to that policy.

F. The totalisator company must designate an individual to act as a point of contact for communications between the Racing Commission and the totalisator company.

II. Programming

Programmers must have written procedure manuals that outline structured programming methods used by the totalisator company. The manual must give the programmer sufficient information to understand the programming methodologies, base operating systems, and maintenance procedures.

III. New Totalisator System Development or Major Changes to Existing Systems

The adequacy and effectiveness of controls in computer systems begin with methods and procedures used during system and program design, development, and modification.

Proper controls over these processes help make sure that systems are made to meet user requirements, are documented and tested, and contain proper controls.

The totalisator company must have a written Systems Development Life Cycle (SDLC) requiring sign-offs at pertinent checkpoints. The SDLC must include the following or a Commission approved variation:

- A. Written request for systems design or major changes and a method for handling and recording these requests. (Requests may come from users or EDP staff who see opportunities for greater efficiencies.)
- B. Feasibility study stage.
- C. General systems design stage.
- D. Detailed systems specification.
- E. Program testing.
- F. System testing.
- G. Conversion.
- H. Systems acceptance by the totalisator company.

IV. Minor Program Changes or Development

Regardless of the size of the modification, procedures must be in place to manage all program changes. Controls must be established to prevent unauthorized and potentially inaccurate program changes from being incorporated into the production environment. Both scheduled and emergency changes need to be regulated so the integrity of the computer system can be relied upon. At a minimum, totalisator companies must comply with the following practices:

- A. Computer programs may be revised only after receiving a written request from the defined user. The request must be on a change request form which is sequentially numbered and accounted for.
- B. Program changes must be developed, tested, and compiled only in a test environment. The test environment must not be connected to an on-line totalisator network.
- C. All program changes must be thoroughly tested before being placed in production.

D. All program changes must be reviewed and approved by a totalisator company supervisor prior to being placed into production.

E. The association and the Racing Commission must be made aware of and approve, in writing, any program change before placing the program change into production. No transfer of data from the test to the production environment is allowed without this written approval.

F. Programmers must not have physical access to the totalisator room nor electronic access to the production environment without prior Commission approval.

V. Totalisator Operations

Totalisator operators must have written operations manuals maintained with each totalisator system. Procedures contained in these manuals must clarify the authority, duties, responsibilities and lines of communication for totalisator operators and managers. The operations manual must contain enough detail to ensure totalisator personnel perform their job duties effectively. The operations manual must include the duties listed in the Personnel Section and at least the following:

A. Clearly defined restrictions for totalisator room access.

B. General block diagrams of program options (menu tree) available to operators.

C. A glossary for terms used in generated reports including formulas for calculating the displayed results.

D. The relationship, if any, between information contained in generated reports.

E. Start-up and shutdown procedures.

F. General operating procedures.

G. Restart and recovery procedures.

H. Emergency procedures including a list of individuals to notify if a system requires an emergency modification.

PERSONNEL

The purpose of the Personnel Section is to ensure the personnel who program, manage, operate, and maintain the totalisator system are competent and knowledgeable and perform their duties to preserve the integrity of racing.

VI. General

- A. The totalisator company is accountable for the actions of its personnel.
- B. The totalisator company must certify in writing that its personnel are properly trained to program, manage, operate, and maintain the pari-mutuel computerized system. Certification must be based on a formal training and testing program.
- C. A list of all certified totalisator personnel assigned to work in Colorado or to handle wagering data from out-of-state must be sent to the Racing Commission as part of the license application. The list must indicate for which position each person is qualified. Whenever new employees are assigned to work in Colorado or to handle wagering data from out-of-state, the totalisator company must add the individuals' names to the list of certified personnel.
- D. No employee may function as programmer and operator simultaneously unless approved by the Commission.
- E. Totalisator personnel are prohibited from wagering.

VII. Network Manager

The network manager must:

- A. Coordinate all of its company's totalisator systems operating in Colorado.
- B. Ensure proper procedures are followed by the operators when shutting down system software and hardware.
- C. Determine the on- and off-site storage locations for the back-up media.
- D. Provide information and prepare any reports requested by the association or the Racing Commission.
- E. Ensure that an up-to-date list of personnel is maintained, all operators are qualified, and that the appropriate accounts are maintained within the operating system and application programs.

VIII. Operators

The operators must:

- A. Maintain the communication links to the remote sites and ensure data is transmitted accurately.

B. Consult with the mutuel manager and a Commission Representative when problems in determining pools or calculations occur and suggest alternatives for continued operation, including possible temporary restrictions on or suspension of the communication links.

C. Perform necessary daily pre-race testing, system initialization, monitoring of wagering operations, and system shutdown.

D. Execute appropriate procedures to shutdown system software and hardware in emergency situations including, but not limited to, 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 back-ups as outlined in the Software Section III.

G. Ensure that entries are made in the Tote Maintenance Log detailing all repairs or modifications to the totalisator system.

H. Prepare incident reports detailing any unusual occurrences or totalisator system operations during wagering with a description of corrective actions taken and probable causes of the problems. The operator must maintain a copy of the report or make an entry in the System Incident Log.

I. Consult with a Commission Representative regarding any other operational issues encountered.

IX. Technicians

A. The totalisator company may provide technicians to service and maintain the totalisator.

B. The technicians:

1. Perform TIM maintenance.
2. Make entries in the Totalisator Maintenance Log of all TIM maintenance and repair activities performed.

HARDWARE STANDARDS

The purpose of this section is to ensure that the hardware provided by the totalisator companies operating in the State of Colorado and/or handling wagering data from out-of-state will operate in a manner that provides a reliable platform on which the software can run.

X. All race tracks are required to operate with a computerized cash/sell pari-mutuel system. An association must 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. The computers must be configured in such a way that should one of the computers actively tracking events fail, the other can immediately begin to take over all functions of the failed computer.

XI. Schematic Chart

A. The totalisator company must provide the Racing 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.

1. This chart must 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. The amount and degree of access could range from unrestricted access to databases and programs with the ability to change each (an operator's terminal), to limited database access (race information input) and the ability to carry out only preassigned, specific commands (a judge's terminal).

2. User assignment must be determined by access, and the schematic must reflect usual and potential user types assigned.

B. The schematic chart must be given to the Racing Commission two weeks prior to system installation and testing.

C. Any changes to the system, however small, must be reflected in a revised schematic chart and submitted to and approved by the Racing Commission before implementation.

XII. Peripherals A pari-mutuel computer system must include the following peripherals:

A. A log printer for each computer.

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 system access. Access via modems or these terminals to the wager processing program or the operating system is not permitted .

D. Uninterruptible Power Supply (UPS).

1. The computer system must be supported by an uninterruptible power supply (UPS) to allow for system shutdown should a power failure occur. System shutdown means that all wagering data in the computer at the time of the failure remains intact, and that all race

and end-of-day reports can be produced. The UPS must also be capable of supplying even power to the system, within accepted limits, when a power surge or drop occurs.

2. The alarm associated with the UPS must be readily recognizable by the operator from within the totalisator room.

E. Wagering information screen displays that meet the requirements of the Racing Commission.

F. Data storage devices to record necessary system data.

G. Backup devices capable of recording complete system information on removable media for storage and restoration.

H. Ticket Issuing Machines (TIMs).

1. The local area ticket issuing machines (TIMs), also known as cash/sell tellers' terminals, are not required to be intelligent.
2. Intelligent local area and remote TIMs must limit their programming to communication with the main computer, maintenance routines, and dynamic terminal configuration routines.
3. Programs related to the production or verification of the wager identification number that is printed on the ticket or assigned by the main computer must never reside in a TIM.
4. Access to the wagering database via a TIM is restricted to the wagering or cashing functions necessary for a teller to serve the public.
5. Removable electronic components that affect TIM operation must be approved by a Commission Representative. This approval will include a device, such as a Commission tape seal, that will identify the components.

I. Stop wagering devices. The totalisator company must install two separate devices that activate the stop wagering function of the totalisator system.

1. The primary device will be accessible to the Board to issue the Stop Wagering command during normal operations and activate the "off bell."
2. The second bell device "back up" is to be installed in the totalisator room to enable the totalisator operator to issue the stop wagering command in the event of a totalisator malfunction or human error that prevents the totalisator system from activating the stop wagering function at the appropriate time.

XIII. Maintenance Totalisator systems in the State of Colorado and/or handling wagering data from out-of-state must have sufficient preventative maintenance to ensure that the system hardware will provide a high degree of reliability. Maintenance includes, but is not limited to, physical cleaning of system components and peripherals and testing of the UPS for battery life and power stability.

XIV. Tote-to-Tote Common Pool Networks

A. General Requirements

1. Associations operating the wagering sites in a Tote-to-Tote network within the State of Colorado and/or handling wagering data from out-of-state must each provide a pari-mutuel computer system that meets the standards and requirements outlined earlier in this chapter, in rules adopted by the Commission, and the current Inter-Tote Standard Protocol.
2. Intertrack wagering is allowed if all equipment used is of an approved type and in an approved location.
3. The host association staging the races or card for which the common pools are operated must also provide a pari-mutuel system that:
 - a. Operates whenever another system in the network is accepting wagers on the common pools.
 - b. Directs each system with respect to pools offered, live and scratched runners, common pool totals, network odds and probable payout, start and stop wagering commands, official orders of finish, deduction and payout calculations.
 - c. Produces reports showing the amount wagered on each runner and pool from each site, except for scanned pools per the current Inter-Tote Standard Protocol.

B. Realignment

1. A Tote-to-Tote network may be realigned to a TIM-to-Tote relationship within the State with a new central computer or with another remote site.
2. Authorization of the realignment is dependent upon the Commission Representative having approved alternate communication links and the capability of the new central CPU system to carry out the functions of a central CPU.
3. Agreements among the associations taking part in the

network must include provisions for realignment in the event of a system failure.

XV. Future Totalisator Systems Any future system configurations, including, but not limited to, central totalisators and other technologies, must receive approval of the Racing Commission prior to implementation.

XVI. Emergency Procedures

A. The computer system must be supported by an uninterruptible power supply (UPS) as described in Section III.

B. Emergency procedures in the event of a pari-mutuel system failure apply whether the system is operating as a stand-alone wagering site for regular or separate pool wagering, or as a satellite in a common pool wagering network.

C. In a Tote-to-Tote network, system failure may occur at either the remote site or the host. If it occurs at the remote site, the Commission Representative and the network's mutuel and system managers must establish the pools for the unaffected sites, which will continue normal operation, while the failure site must cease wagering. The Commission Representative must then determine when the failed pari-mutuel system may resume operation.

SOFTWARE STANDARDS

The purpose of the Software Standards section is to ensure that the software provided by the totalisator companies operating in the State of Colorado and/or handling wagering data from out-of-state runs within the intended design specifications and meets Colorado Racing Commission totalisator system policies and procedures, thereby insuring the accuracy and integrity of the data generated by the software and of the totalisator system as a whole.

XVII. General

A. Program Standards

The totalisator system must have a program that:

1. Sells, calculates, and cashes according to the pool profile, current pari-mutuel rules in effect, and number of races applied for.
2. Produces the required reports and logs.
3. Is capable of accepting advanced bets for the number of races and/or cards requested.
4. Networks with the remote wagering sites specified.

5. Offers as many simultaneous wagering cards as applied for.
6. Allows access to program functions and identification of each user based on the individual user ID's/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 TIMs.
7. Maintains automatically all carry-over data required for the next performance on a rotating basis, including system date and time, without operator intervention.
8. Can only be modified by individuals holding specific user IDs which allow gateways into the operating system.
9. Is provided to the association and run as a compiled program, provided without source code or compiler. Interpreted programs/programming languages are not acceptable.
10. Has thorough and complete documentation, as defined in Section II.
11. Employs utility programs that show a change was made to production programs, who made the change, and when the change was made.
12. Provides software/hardware restrictions that will eliminate the capability of printing duplicate on-line tickets.
13. Provides software/hardware restrictions that will reduce the possibility of invalid claims on unclaimed winners.
14. Provides a utility/application that writes requested pari-mutuel wagering data on media readable by the Racing Commission. This data must be generated in the presence of a Commission Representative. The totalisator company must also provide documentation about the structure of the data.
15. Generates data usable across two major revisions, and within all minor revisions, or archived data must be retrievable for reports requested by the Commission within twenty-four hours unless otherwise specified.

16. Contains utility programs that provide backup capability for the system and a method to schedule these backups.

B. The operating system must be separated from the application program, and either the operating system or application must provide some type of individual user ID based auditing.

C. An inventory of all programs included in the system must be available to the Racing Commission.

D. Software must be capable of detecting abnormal system operations and their causes, such as validation problems, communication difficulties, computer downtime, etc., and providing immediate notification to the appropriate individuals (e.g., broadcast to management terminals or system console).

E. A totalisator system must be able to produce a copy, in a Racing Commission approved format, of all data necessary to re-create the wagering activity of any race performance that the Racing Commission requests.

XVIII. Documentation

A. Software documentation, using computer software industry accepted methods, must be available to the Racing Commission and must include, at a minimum:

1. Documentation of 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).

2. Complete documentation of all program functions as seen by the end user of the program.

3. 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.

4. Clarification of differences between major and minor revisions of the totalisator software. This clarification must include a complete history of all revisions, the intended reasons for and differences between major and minor revisions, the date of implementation, and a listing of the current revision number.

B. Any change in software requires the assignment of either a new major or minor revision number.

XIX. Backup

A. The totalisator system must be backed-up to removable media. These backups must be made at least at the following intervals:

1. Full system backups (level 0) must be made at weekly intervals. Full system backups must include all files contained on the totalisator system.
2. Incremental system backups (level 1) must be made at daily intervals. Incremental system backups must include all files that were changed since either the last full system (level 0) or incremental backup (level 1).

B. Backups must be stored at an off-site storage area in a disaster-resistant environment.

XX. Changes to Totalisator Software

A. Racing Commission personnel must approve any changes to the software on the central site computers, peripherals, or firmware changes downloaded to terminals in the State of Colorado and/or to terminals handling wagering data from out-of-state.

B. Changes to totalisator software may not be initialized or operated during wagering until tested and approved by the Racing Commission. The daily computer log must show:

1. When the changes were loaded into the computer.
2. The time during which the work was carried out.
3. When the changes were off-loaded.
4. A user ID showing by whom and from which terminal the work was carried out.

XXI. Totalisator Network Standards

A. The common pools must be merged and calculated at the site designated as the network computing center.

B. In a Tote-to-Tote wagering network (using a different system at each site), or at remote sites, the totalisator company must use the Inter-Tote System Protocol endorsed by the Association of Racing Commissioners International. The Racing Commission may determine that remote sites must be closed before the post time of the races.

C. In a TIM-to-Tote Network failure, recorded bets must be distributed with those from the parts of the network still operating.

XXII. Data Transmission Protocols

A. In a TIM-to-Tote network, the association may use whatever communications protocol it wishes.

B. Remote sites shall be treated as Tote-to-Tote networks and will be held to the standards defined in Section V.

C. When the failure to compile pools or payout winning prices can be isolated to the remote site, the stopping of wagering or the manual cashing and accounting of tickets need only occur at the site affected. The relevant information must be transmitted between the central computer and the remote site through the normal communication link or facsimile machine and must be verified by the voice link.

XXIII. Live Transmission of Wagering Information

Satellite tracks for inter-track wagering and all wagering sites must display, for each race, the odds, pool information, post-times, time of day, and payout from the host track. Pari-mutuel systems may be approved that provide this wagering information through the same television broadcast system used for the actual race. Where this is the case, the pari-mutuel system will not be approved unless a contingency plan is in place to display the necessary wagering information at the appropriate times whenever the television broadcast system fails.

XXIV. Advance Wagering

A racetrack association may conduct advance wagering with an approved totalisator system that:

- A. Directly records the advance wagers and any cancellations of advance wagers into the regular wagering pools and can provide a computer printout showing the advance wagers for all runners and combinations of all pools in each race.
- B. Uses the advance wagers in each win pool to calculate the winning odds or probable payout. These are to be posted on the tote board or on the video system at the opening of regular wagering on each race of a race card.

INDEPENDENT MONITORING SYSTEM

- 1. Purpose: An Independent Monitoring System (hereafter, “IMS”), as available and approved by the Colorado Racing Commission (hereafter, the “Commission”), shall be utilized to monitor the totalisator system independently in order to ensure the security and integrity of the wagering process.
- 2. Monitoring System Capabilities: At a minimum, the IMS shall verify all transactions performed by the totalisator that relate to the wagering process. The IMS shall detect anomalies in the wagering process that do not comply with the Regulations or that could compromise the integrity of the wagering process, and shall provide immediate notification of the detection of such anomalies to the system operator.
 - A. The IMS shall produce alerts corresponding to potential wagering rule violations or other situations that could compromise the integrity of the wagering process. Additionally, the IMS shall be able to produce reports related to that monitoring activity.
 - B. The IMS must be designed to operate at or near real time in a high data volume environment, and shall detect and remain operational even in the case of disruption of the totalisator system.

- C. Because the IMS must collect and store data that is sensitive both from a security and a commercial perspective, the IMS must ensure the security of the data collected. The data collected may only be used for the purposes set out herein. The IMS must demonstrate significant controls to prevent unauthorized access or use of the data. The IMS must adhere to the Facility Standards as they apply to the Operating Environment and Computer Room Security.
3. Operation of the Monitoring System: The IMS must be operated by an IMS Provider that is an Independent Third Party organization approved by the Commission. The IMS Provider shall be responsible to operate and maintain the IMS, respond to alerts raised by the IMS (in a prompt manner), and coordinate the response procedures to the alert (as set out in section 6). The IMS Provider shall be a trusted organization or company, having no commercial or ownership interests in the Pari-Mutuel industry other than in providing Independent Monitoring Services. The IMS Provider and its employees may, at the discretion of the Commission, be subject to the licensing provisions of the Commission.
 4. Supplier of the Monitoring System: The IMS Software must have been developed and supplied by an Independent Third Party, having no commercial or ownership interests in the Pari-Mutuel industry other than in providing software for monitoring, risk management and related areas of security. The IMS Software Supplier and its employees may, at the discretion of the Commission, be subject to the licensing provisions of the Commission.
 5. Responsibility of the Race Meet Operator: The Race Meet Operator, either independently or through the contracted totalisator company (hereafter collectively known as the “Operator”), will be responsible, as an approved system(s) becomes available, for engaging an approved IMS Provider to provide the monitoring capabilities. The Operator of the Race Meet and the Totalisator Company must ensure that the totalisator system that is processing wagers is capable of interfacing with the IMS. The Totalisator Company must ensure that any changes to the totalisator system do not disrupt the operation of the IMS. The IMS Provider must ensure that the Commission has approved the Response Procedures defined for any alerts raised by the IMS. The Operator’s engagement with the IMS Provider must provide the Commission access to the IMS Provider and the IMS through a terminal located at the discretion of the State of Colorado Division of Racing Events (hereafter, the “Division”).
 6. Response Procedures: The Operator, working with the IMS Provider, shall define response procedures for responding to alerts raised by the IMS. Such procedures shall define for each type of alert, what procedures shall be followed to respond to that situation. Such response procedures shall be submitted to and subject to the approval of the Division. The Division shall have the right to define its own level of notification and involvement in the response to any alert raised. The Operator shall be responsible for ensuring that the agreed response procedures are in place

for in each case for which an alert is raised, and that a procedure for the maintenance of a log of alerts and responses is also in place. The IMS Provider will be responsible for ensuring these procedures are followed. The Operator and/or IMS Provider shall report to the Division on each alert that has been raised and the response that has been undertaken according to reporting obligations defined by the Commission.

7. Rights of the Commission: The Commission, through the Division, shall have the right at any time, with or without notice, to view the IMS, its reports and its data. The Commission, through the Division, shall have the right to review alerts raised and responses taken to ensure compliance with the requirements of the Race Meet Operator.

REPORT AND LOG REQUIREMENTS

Every pari-mutuel computer system must produce hard copy reports and logs necessary to audit pari-mutuel activity and to recreate any given day of a racemeet in its entirety at a future date. Reports are summaries of betting activity and are printed out prior to any betting, and regularly during a race day. Logs are itemized listings of every command, inquiry, or transaction given to a computer during operation, retained on storage devices and printed out as required.

On a daily basis, the totalisator must produce various reports and logs. The information needed for these reports and logs must be retained on storage devices for a period of 365 days after the end of the racemeet, or until otherwise released by the Commission, to be printed out and delivered to a Commission Representative when requested.

Every report printed out must have consecutively numbered pages. Each page must be headed with the name of the race track, the date and time (in hours, minutes and seconds) the report was produced, the performance number and wagering site to which the report refers, and the version of software in use.

XXV. Pre-Race Reports

Prior to the commencement of wagering, at a minimum the system must print out the following reports and have them available for review by a Commission Representative:

A. System Initialization Report showing:

1. The date and time the system was initialized.
2. The software version in use.
3. A listing of changes made to that software version, when requested.
4. The operator initializing the system.

B. Configuration Parameter Report showing:

1. Pools that may be offered and that are currently operational in the system.
2. The display cycle frequency, pools, any minimum pool required, minimum wagers (\$1, \$2, other price), and means of display of any approximate odds or will-pays produced.
3. The minimum and maximum value of wagers for every pool that a TIM may accept.
4. Which teller- or patron-activated TIMs are activated.
5. Which remote betting sites are to be accepted into the system.
6. The split percentages and payout parameters for any multi-leg pool offered.
7. Any operational locking devices.
8. Any delay between locking switch activation and actual stop betting.
9. The canceling parameters for regular and supervisory TIMs (e.g. only the last four tickets produced or unlimited).
10. Configurations placed on a TIM.
11. Method of breakage and rounding used in calculating
12. A listing of all terminals to be operational that day.
13. Takeout percentages for association, state, and other statutorily mandated takeouts used in price calculations.
14. Federal and state tax withholding rates and parameters.

C. Race Information Report showing for every race to be offered on that card and, if applicable, for every program offered on that card:

1. The pools to be opened, indicating totals starting at zero and totals starting with money from advance wagering.
2. Pool summaries of all advance wagering.
3. Money added due to overages.
4. Underpayments or money added due to carry-overs.
5. The runners in each race, showing entries, live and scratched runners.

D. Odds Report showing the opening line of odds for the Win pool due to advance wagering on any race.

E. TIM Report listing, by either machine number or teller's name:

1. Teller's name and location.
2. Each TIM to be opened that day and teller assigned to it.

XXVI. Race-by-Race Reports

For every race offered, at a minimum the system must print the following reports from each computer operated and have them available for review by a Commission Representative:

A. Scratch Report showing the time each late scratch was entered into the system and the amount of money to be refunded in each pool.

B. Betting Report, to be produced immediately upon activation of the stop betting command and final merge of wagering information from all sites showing:

1. The amount wagered and to be refunded for each betting interest or combination in each pool operated, with the total for each pool to be used for calculating the pool
2. The final dollar odds for the Win pool.

C. Calculating/Price Report, to be provided before the race is declared official, showing for each pool:

1. The total amount wagered.
2. The total amount refunded.
3. The amount added to the pool.
4. The actual pool total.
5. The winning betting interests or combinations.
6. The winning monies.
7. The \$2, or other minimum dollar, payout prices.
8. The state and association takeout in total dollars.
9. The breakage.
10. The amount paid to the public.

D. Probable Payout Report showing the payouts for the Daily Double, subject to scratches, cancellations and dead heats.

E. Scan Report for multi-leg pools of three or more legs, showing:

1. The total bet in the pool.
2. The amount of any carry over.
3. The winners of completed legs.
4. The amount of possible winning monies, (based on paying the winner of completed legs combined with every betting interest entered in subsequent legs).
5. Late scratches in any leg.

F. Race Summary Report, which is produced after the race results are official, showing as the sum from all pools paid out in that race:

1. The amount bet.
2. The amount refunded.
3. The actual pool.

4. State, association, and other takeouts (commissions) in total dollars.
5. The breakage.
6. The amount paid to the public.
7. The monies added to pools.

G. Daily Summary Report, which is produced with the Race Summary Report, showing the cumulative totals (from each pool and from all pools combined), of the items listed under the Race Summary Report.

XXVII. End-of-Day Reports

After wagering has ceased on all cards during a race day, at a minimum the system must print the following reports, and totalisator personnel must provide them, as requested, to a Commission Representative:

A. Teller Balance Report showing for every TIM operated on that card:

1. The teller's name or identification number, or a patron activated designation.
2. The total value and number of tickets sold, canceled, and cashed (outs separated from current day's).
3. The total amount of money drawn from the money room, including the beginning draw.
4. The total amount of money returned to the money room.
5. A listing of adjustments made to each terminal/teller balance after each teller or machine has been individually balanced.

B. Wagering Summary Report. This is a re-computation of the card's wagering activity from the transaction files. This report shows:

1. The amount wagered, refunded and added for every pool and for each race.
2. The amount wagered, refunded and added at each site for every pool and for each race.
3. The time of day each race's pools closed.
4. The commissions deducted, breakage calculated, and amount paid out for every pool in each race.
5. The total value of outstanding tickets prior to the pools being opened for the card, the value of those tickets cashed during the card, the value of tickets from the card to be added to the outstanding total, and the new outstanding ticket total.
6. The total value of outstanding vouchers prior to the pools being opened for the card, the value of those vouchers cashed during the card, the value of vouchers from the card

to be added to the outstanding total, and the new outstanding voucher total.

C. System Balance Report giving a comparison of the pools and paid-out totals obtained through processing the transaction files, with the pool and paid-out totals obtained from the actual calculations made. This includes a Money Room Balance Report showing the cash reconciliation at the site and at each site in a Tote-to-Tote network.

D. Teller Inquiry Report showing the time of each cash balance inquiry made by each teller.

E. Money Room Balance Report showing cash added and subtracted from the beginning day's balance as resulted from the day's wagering and cashing transactions.

F. 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.

XXVIII. Ad Hoc Reports

When requested by a Commission Representative, the totalisator system must print out and totalisator personnel must submit the following reports:

A. Odds Report showing each successive line of odds for the Win pool, and the time it was displayed to the public.

B. Ticket History Report showing the appropriate portion of the ticket history log for the requested ticket identification numbers.

C. Terminal History Report showing the portion of the terminal log requested.

D. Wagering Report required for multi-leg pools over six legs, showing the amount bet on every combination of the pool and total amount bet.

E. Outstanding Ticket Report showing the following information for uncashed winning tickets retained in the totalisator system:

1. The ticket identification number.
2. The wagers on the ticket.
3. The date and card for which the ticket is outstanding.
4. The value of the winning wagers.
5. The issuing machine location and number.

F. Outstanding Tickets Cashed Report, for a card, race or pool requested, showing every outstanding ticket cashed that day listed in the form of the Outstanding Ticket Report. The cashing machine number and a manual keyboard entry or automatic machine read entry must be included.

G. Manually Cashed Tickets Report, for a card, race, or pool requested, showing every ticket cashed that day listed in the form of the Ticket History Report. The cashing machine number and a manual keyboard entry must be indicated as well as a subtotal for each terminal.

H. Canceled Tickets Report, for a card or race requested, showing every ticket canceled that day listed in the form of the Ticket History Report. The cashing machine number and a manual keyboard entry or automatic machine read must be indicated as well as a subtotal for each terminal.

I. 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.

J. Ticket History Report and Terminal History Report, in the case of a TIM to totalisator network failure, for specific location(s) and time period(s) in order to determine what wagers have been recorded in the totalisator from the remote site, including any advance bets.

K. Network Balance Report summarizing each site's activity and liabilities owed by the network host and/or the site(s) for the race card for each system within a Tote-to-Tote network.

L. Other reports as needed which would require the totalisator system to filter data by card, race, pool, betting interest, TIMs, sites, or any combination(s) of the aforementioned indices.

M. Any requested report involving processing time not available during wagering must be printed out and given to a Commission Representative within 24 hours after wagering has closed on the race or card, unless otherwise directed by the Commission.

XXIX. Logs

On a daily basis, the totalisator must produce various logs. These logs must be printed out and delivered to a Commission Representative when requested. At a minimum, the logs include:

A. Teller/Machine History Log showing for every teller/machine operated during a card:

1. Each opening and closing of the machine.
2. For each wagering transaction, the bets made, tickets issued and total value of the transaction.
3. For each cashing, canceling or refunding transaction, the identification numbers of the tickets processed, the bets being paid out, and the value of the bets paid out.
4. An indication as to whether the paying transaction was a manual keyboard entry or an automatic machine read entry.
5. The value of each draw and return.
6. Any special function, including Teller Balance, accessed through the machine.
7. The time of day each of the above entries were made.

B. Ticket History Log showing for every ticket issued:

1. The identification number of cashed/canceled tickets.
2. The issuing machine location and number.
3. The wagers and their values.
4. The cashing/canceling machine location and number.
5. The value paid out.
6. The time of day the selling and paying occurred.

7. An indication as to whether each transaction was manual or automatic.

C. User Terminal Log showing the time of day of each entry for:

1. Every terminal other than a TIM operating during a card:

- a. Every log-on/log-off and the operator's ID code.
- b. Every command or transaction entered.
- c. Every Stop Betting, Order of Finish, Official, and Sales Open command and the device that issued it.
- d. Every occurrence of loss/restoration of communication between computers or wagering sites.
- e. Every occurrence of disagreement between computers or wagering sites when comparing data bases.

2. Every TIM operated during a card:

- a. Every log-on/log-off and the teller's ID code, if applicable.
- b. Every instance of loss/restoration of communication and the TIM involved.

D. System Journal Log, including date and time of each entry, showing for every day the system is operated for wagering, maintenance or other purpose:

1. System shutdown commands, the device from which they were issued, and the user ID of the individual issuing the commands;
2. The individual user ID used and the originating device for every attempt, successful or unsuccessful, to access the operating system;
3. The individual user ID used and the originating device for every attempt, successful or unsuccessful, to access the application programs;
4. All commands that affect the operating environments issued from the operating system command line;
5. All commands issued from within the application program in an attempt to access the operating system;
6. A listing of every operational or operating terminal during computer operation.

In addition to the computer generated reports and logs, the totalisator personnel must maintain the following logs for review by a Commission Representative:

* E. Totalisator Room Access Log of all authorized persons entering and leaving the totalisator central computer room whether in the State of Colorado or handling wagering data from out-of-state, if the association does not provide a locking entry system that uniquely identifies the person entering the room, and of all visitors to the room. This includes entries of date, time, and user ID of each person entering and leaving the room.

F. Totalisator Maintenance Log of all maintenance work completed on TIMs and the main totalisator computers or printers showing:

1. The name of person performing the work.
2. The date and time of day when the maintenance was performed.
3. The type of maintenance job(s) performed.

G. System Incident Log of all incidents, including system failures, their causes, and corrective actions taken.

FACILITY STANDARDS

The purpose of the Facility Standards Section is to provide minimum guidelines to ensure a safe, secure and climate controlled environment for the totalisator system.

XXX. Operating Environment

The association must provide a computer (totalisator) room to house the main computing and communications equipment and the operator's terminal. At a minimum, the room must include:

A. Air conditioning with humidity control to maintain a stable environment within original computer equipment manufacturer specifications.

1. The air conditioning system controls for the totalisator room must be located in the totalisator room.
2. An air conditioning failure detection system connected to the primary alarm system or to the totalisator shut down system must be provided.

B. A master power switch and switches in the totalisator area that allow part or all of the equipment housed there to be turned off in an emergency.

C. A smoke/fire alarm system that sounds locally and is tied into the association's master alarm system.

D. Fire extinguishers to deal with minor electrical fires.

E. A communication system connecting the operator with the judges/stewards, the mutual manager, each betting line, the infield board, and the on-site Commission office. A private outside line must be included for communication with supervisors, programmers, or totalisator personnel at other sites.

F. Fire resistant, locking storage cabinets to hold removable data storage devices and documents necessary for operating the system.

XXXI. Computer Room Security

The totalisator room must be secure during operating and non-operating hours. The association must ensure this by providing:

A. A perimeter security system covering the totalisator room and any other related service, electrical or equipment room that consists of locking of closed doors and the detection of unauthorized entry.

B. A system of controlled entry to the totalisator room and any other related rooms. The system must utilize locking devices on all doors or entry points. The locking devices on entry points must use a security system that uniquely identifies each person entering the restricted area, or the association must provide closed circuit television with a time/date recording device to monitor access to the computer room. These monitors and recorders must be placed in a Commission designated area. The association must also provide:

1. A means of controlling the distribution of electronic keys or codes necessary to unlock the doors.
2. A sign-in log for visitors escorted by authorized personnel.

C. Entry to the restricted area must be limited to association, totalisator, and Commission personnel approved by the Director of the Division of Racing Events.

1. One week prior to the beginning of a racemeet, the association and totalisator company must submit to the Director of the Division of Racing Events a list of personnel authorized to enter the totalisator room.
2. Whenever there are personnel changes made, the association and totalisator company must submit the changes to the Director of the Division of Racing Events for approval.