

**Colorado Limited Gaming Control Commission**  
***Internal Control Minimum Procedures (ICMP)***

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**SECTION 13**

**SURVEILLANCE SYSTEM STANDARDS**

**A. GENERAL**

Surveillance system standards apply to all license groups.

All casinos shall have in place digital recording systems that meet the requirements of this section.

All surveillance systems and camera coverage of all gaming activity and devices must receive initial approval from the Division prior to being utilized. After the initial approval, the licensee may make the approved changes to its cameras.

All personnel installing, cleaning, maintaining, and repairing surveillance equipment on site must be licensed by the Division of Gaming.

The surveillance system's time must be synced to the same source that the licensee utilizes for its gaming system. In the event that the licensee doesn't utilize a gaming system, the surveillance system time must be synced with [www.time.gov](http://www.time.gov).

A date/time must be imbedded on all recordings of gaming areas. The date and time must be synchronized and set correctly and must not significantly obscure the picture.

Licensees are responsible for ensuring all surveillance equipment is properly functioning and the playback quality meets Division requirements.

The licensee must have all documentation, approvals, and variances, or copies thereof, relating to surveillance, kept in the surveillance room and available upon request.

The licensee is responsible for training licensed surveillance employees in game protection, the play of all games, the odds payouts of table games, investigations, and the use of its surveillance system.

**SPECIFIC STANDARDS**

**B. DEFINITIONS**

1. PTZ - pan-tilt-zoom camera.
2. Stationary cameras - once a camera is installed it cannot be remotely moved.
3. The size of the monitor – the display area measured diagonally and excludes the cabinet.
4. Critical areas - include cage, vault, count rooms, and any required cameras inside the surveillance room.

## **Colorado Limited Gaming Control Commission**

### ***Internal Control Minimum Procedures (ICMP)***

---

5. DVR – digital video recorder.
6. FPS – Frame rate or frame frequency per second. FPS is the measurement of the frequency (rate) at which an imaging device produces unique consecutive images called frames. Each frame consists of two fields.
7. Fields – One field is defined as half of one frame.
8. TVL – Total video lines of resolution.
9. Remote access – any access to the surveillance system outside the surveillance room.

#### **C. EQUIPMENT**

All cameras for critical areas, table games, and the PTZ cameras within those areas must meet or exceed the requirements set within the applicable sections.

Megapixel cameras are allowed, as long as the camera interfaces with the licensee's surveillance system.

At least one-digital monitor in the surveillance room shall have the capability of displaying any camera (live or playback) in a 15-inch or greater viewable area, not to include system controls. Licensees with 500 or more devices will provide a separate monitor station for reviews that does not interfere with normal operations.

All work stations must be capable of video review in forward, reverse, slow motion, and frame-by-frame.

Auto iris lenses are acceptable, if they are properly adjusted at all times. However, manual iris lenses, or auto iris lenses with a manual override, are required for PTZ cameras.

The use of real-time quad recorders and multiplexers are not permitted for required gaming cameras.

The licensee must have a failure notification system that provides notification of any recording failure within 15 minutes. All recording failures must be addressed within one hour of system notification.

One color capable video printer is required in the surveillance room. The printer must be able to immediately produce a clear still photo of any camera image.

All PTZ cameras must be 360 degree functional in gaming areas and must be enclosed in a shaded housing, so that it is hidden from view. New and replacement PTZ cameras that are required by the Division shall be replaced with color capable PTZ cameras.

All recordings must be erased or destroyed prior to disposal, sale to another licensee or manufacturer, or when discarded by any other means.

## **Colorado Limited Gaming Control Commission**

### ***Internal Control Minimum Procedures (ICMP)***

---

#### **D. CASHIER CAGES, VAULTS, AND COUNT ROOMS**

In count rooms, cages, and vaults, cameras must be positioned so that all areas in the room are covered to include but not limited to, access points to and from the underside of desks and counters, storage areas, and to the highest area where an item can be stored. Video surveillance must cover all areas where chips, tokens, cash, and other cash equivalents are stored. New and replacement cameras shall be replaced with color capable cameras.

In the count room, stationary cameras must provide a close up, unobstructed view of the cash/coin counting table where the actual count takes place. During the count, the count team members, whether removing monies from the bucket or box, counting, sorting, verifying or storing, must not obstruct the camera view of the monies. The location where monies are set aside, until the end of the count and cashier verification, must be recorded by surveillance cameras that are located close enough to the monies to identify individuals accessing the funds, ensure the monies are clearly distinguishable, and can differentiate between money and other papers.

In the cashier's cage, stationary cameras must provide a close up view of the cash/coin, slot coupon and ticket transactions. Transaction areas must be clearly marked on the counter so that cashiers know where to place currency and documents. Transaction cameras covering this area must be able to differentiate between bill denomination, slot coupon value, ticket value, and chip value. Designated cameras must view the faces of patrons and employees making transactions with sufficient clarity to identify them at all cage windows on playback.

Internal hallways to and from count, vault, and cashier rooms must have adequate surveillance coverage for the protection of assets.

Elevators used for transporting drops, fills, credits, jackpots, and gaming monies must have adequate surveillance coverage for the protection of assets, inside the elevator and at each opening on the floors. Dumb waiters need not have surveillance inside, but must still have surveillance at each opening on the floors.

Count rooms, vaults, and cashier cages must have room lighting hard wired. There must be no ability to turn off the lights from inside the room, or near the doors.

Restricted key boxes, duplicate key boxes, an automated key tracking system and any other key lock system must be under surveillance.

All cash transaction devices which are an extension of the cage, such as a kiosk or other type devices that redeem gaming tickets, slot coupons, or exchange coins, bills, or tokens shall have adequate surveillance coverage for the protection of assets and identification of person(s) using the device. Stand-alone ATM machines are exempt from this requirement.

All pouch pay, pouch bank, or change pouch, as well as their storage cabinets, lockers, or racks, etc., shall have adequate surveillance coverage at all times for the protection of assets.

## **Colorado Limited Gaming Control Commission**

### ***Internal Control Minimum Procedures (ICMP)***

---

#### **E. TABLE GAMES**

The number of PTZ cameras will depend on table layout. The PTZ camera must be able to view the patron's face, cards, chips, tokens, cash and play areas of each table. PTZ cameras must be able to distinguish card values on the normal setup and playback. A patron's face is defined as the ability of the PTZ to view at least one half of the patron's face from the side. During the course of play on any table game, the dealer must not obstruct the camera view of the table tray, drop slot, or tip box.

The soft drop route must be under stationary or PTZ camera coverage.

#### **BLACKJACK**

All blackjack tables must have stationary camera coverage. Cameras must be positioned to provide an overview of the whole table, outside bumper to outside bumper, including the table tray, table game validation unit and drop slot while the game is in play. Stationary cameras must be able to distinguish all chip, cash, tickets, table games coupons, mobile ATM receipts, and card values on the normal setup and playback. On all house banked poker tables, surveillance coverage is required to read suits and differentiate between chip/token values on playback. Surveillance coverage must also provide a view of the table tray, tip box, and must cover the entire table, which includes back of chair to back of chair. Table games linked to a progressive jackpot must have stationary camera coverage of the access to the progressive controller computer.

#### **POKER**

All player banked poker tables must have stationary camera coverage that includes the table tray, rake slide, jackpot drop area, tip box, muck cards, and the wagering pot. Surveillance coverage must be able to distinguish the suits of the community cards and the winning hand on playback. Surveillance coverage must also view the entire poker table, which includes the back of chair to the back of chair.

All poker table tray storage cabinets, lockers, racks, table games validation units, etc., shall have adequate surveillance coverage for the protection of assets.

All poker imprest banks, which are the point of chip and cash transactions for the poker tables, must have the same camera coverage as that of a cashier's cage.

#### **ROULETTE**

All roulette tables must have stationary color camera coverage. The cameras must be positioned to provide an overview of the entire table, to view the rails which hold chips (if any), the table trays or chip storage area, the drop slots, table game validation units, and tip boxes, live and on playback.

## **Colorado Limited Gaming Control Commission**

### ***Internal Control Minimum Procedures (ICMP)***

---

Stationary camera coverage must also cover the wheel, so as to be able to determine the outcome of the game, live and on playback.

One PTZ camera will be required for every roulette table. All PTZ cameras must be color cameras and be able to determine the value of any and all wagers made.

#### **CRAPS**

All craps tables must have stationary color camera coverage. Cameras must be positioned to provide an overview of the entire table, to view the rails which hold chips (if any), the table trays, drop slots, table game validation units, and tip boxes, live and on playback.

Two PTZ cameras will be required for every craps table. All PTZ cameras must be color cameras and be able to determine the value of any and all wagers made.

#### **F. SLOT AREAS**

There must be at least one PTZ camera on each floor of the casino that has slot machines. PTZ cameras must be positioned so the route of any person walking through the slot gaming area is covered at all times. All slot machines must be under stationary camera surveillance with sufficient coverage to protect assets. Coverage must include the candle, access to the progressive controller and the slot machine doors. Surveillance coverage also must include aisles where hard drops are transported. During the drop, the route must be under stationary or PTZ camera coverage. The slot machine surveillance coverage must be able to determine if a person is accessing the slot machine, the drop box, or is playing the slot machine on playback.

Any multi-linked progressive slot machine offering a payout greater than \$1,000,000 and/or **any** non multi-linked slot machines offering a payout of more than \$500,000 must have coverage of the progressive jackpot liability in addition to the above-required coverage. One camera showing the same liability for multiple banks of the same progressive may be allowed.

#### **G. OTHER STANDARDS**

All camera views of gaming areas must be continuously recorded 24 hours a day. The use of motion detection is authorized with a five second pre-event recording with Division approval prior to initial use.

A complete index and guide to the casino cameras, monitors and controls must be available in the surveillance room. This guide must include a map of the camera locations, direction of coverage, camera numbers and operating instructions for the surveillance equipment. In addition, for unmanned surveillance rooms, a complete guide showing the chronological order of the hard and soft drop from start to finish must be available. The guide should have camera numbers and details of the machines covered. All surveillance recordings in critical gaming areas must be

## **Colorado Limited Gaming Control Commission**

### ***Internal Control Minimum Procedures (ICMP)***

---

kept a minimum of 15 days or until gaming document reconciliations have been completed by accounting, whichever is longer, and 10 days for all other gaming areas.

All video losses, that are not a result of routine maintenance, that exceed 15 minutes for critical cameras or an hour on other required gaming cameras must be immediately reported to the Division. Any surveillance system component failure that affects the ability to review required coverage or to conduct an investigation must be reported to the Division in accordance with the reporting requirements.

Access to surveillance rooms shall be limited to employees that are essential to surveillance operations, ICO's, casino shift managers, law enforcement agencies, service personnel, and others when approved by the Division. The surveillance room manager has final authority regarding the authorization of access by casino personnel, except when the Division requires or authorizes access. A current list of authorized employees and service personnel that have access to the surveillance room must be posted in the surveillance room.

Each casino must have a surveillance room in-house. Exceptions would only be for commonly owned casinos, which are within the same municipality and gaming district. The surveillance room must be within one of the commonly owned casinos. The casino will provide a review station, printer, map of cameras, and communication in the property that does not house the surveillance room if the casinos are not contiguous. All equipment and security standards in the review station room will meet the minimum criteria set forth by this ICMP section.

Surveillance rooms must remain locked and must have room for at least two people to view monitors. Licensees that have other functions housed in the surveillance room must receive Division approval. At least one surveillance camera must be in the surveillance room to record any employee who has access to the non-surveillance equipment.

Licensees with 500 or more total gaming devices (slot machines and table games) must have manned surveillance rooms during gaming hours, and during the drop and count procedure. Licensees with less than 500 gaming devices but having one or more craps table must have manned surveillance during the hours that any craps table is open for play. If the licensee has a combined surveillance room with a second and or third casino, manned surveillance will be required if the total number of gaming devices between all of the casinos is 500 or more. Each combined surveillance room must be staffed for each individual license in accordance with the above minimum staffing requirements. An authorized person competent in the operation of the surveillance equipment must relieve the surveillance agent/operator for any and all breaks.

Surveillance recordings, to include recordings for evidentiary purposes and clear still photos must be made available to the Division upon request. Manned surveillance rooms must have the ability to immediately send and receive e-mails of still pictures to the Division of Gaming and law enforcement for the purpose of disseminating information of suspects involved in illegal activity. The e-mail account cannot be networked with the surveillance system.

## **Colorado Limited Gaming Control Commission**

### ***Internal Control Minimum Procedures (ICMP)***

---

#### **H. DIGITAL SURVEILLANCE**

All digital recording devices are required to record, review and download simultaneously without an interruption of the record mode. Digital recording devices must be connected to an uninterruptible power source to ensure safe shutdown of the system in the event of a power loss, and must reboot in the record mode.

In the event of a complete power failure in a casino or power failure in the pit area or surveillance room, all table games must be shut down until power is restored and the surveillance system is fully operating. Should the power or surveillance system shut down, it is proper to complete the hand in play before table play is stopped. The games may only commence if power has been restored, or if the establishment is equipped with a back-up generator able to fully operate all surveillance systems.

When necessary to perform maintenance on digital recording systems, a casino may temporarily take system components offline to perform those functions. Maintenance functions would generally be described as rebooting, defragmenting or other necessary information technology function necessary to keep the digital surveillance recording system operating properly. Maintenance functions shall be performed at a time when it is least disruptive to operational functions of the casino and are exempt from the notification requirements of one hour for non-critical coverage loss and the notification requirements of 15 minutes for critical loss. Any other surveillance losses or system component failure shall continue to be reported to the Division of Gaming as required.

The licensee must provide the Division with the necessary software/hardware to review a downloaded recording. The media player must be imbedded within the recorded medium and must be capable of review in forward, reverse, slow motion, and frame-by-frame. The licensee is responsible for supplying a reasonable medium for the amount of recorded information being downloaded and transferred (i.e., CD, DVD, flash drive, memory stick, or a portable hard drive). VHS or any other video tape is not an acceptable format for the download or storing of video information required by the Division. All necessary cables, programs, and instructions for use must be supplied with these devices. The licensee must ensure that appropriate policies and controls are in place outlining the device check in/out process. Upon completion of use, the Division will return the equipment to the licensee. The licensee will provide a jewel case, sleeve, or other type of carrying case for the medium, if applicable.

An authentication process or watermark will be required to authenticate dates/time and validity of live and archived data. The authentication and/or watermark must be visible on the archived data as a visual verification.

If the licensee uses a network for the digital recording equipment, it must be a closed network with limited access. The licensee must have procedures in place that prevent unauthorized access to the surveillance system.

The licensee may allow remote access to its network for maintenance purposes and within the

## **Colorado Limited Gaming Control Commission**

### ***Internal Control Minimum Procedures (ICMP)***

---

casino with prior approval by the Division. Written procedures must be submitted to the Division for approval prior to allowing the remote access. The remote access must be on a secure network. Licensees must maintain a manually generated and system generated log that documents system upgrades, modifications, problems, and all remote access.

The system access log must be maintained at all times and include, at a minimum:

1. Date of remote access;
2. Reason for the remote access;
3. Full name, license number & position of person remotely accessing the system;
4. Description of how the problem was resolved or modification made to the system.

The system generated log, at a minimum, must include the date, start time and end time of access. The report must be printed monthly and traced to the manual log. The Division must be notified, in writing, of any variance between the manual and system log, which must include an explanation for the variance, and a reconstruction of the events that occurred. The system and manual log must be maintained together in the surveillance room and available to the Division upon request.

The use of any video and/or still images obtained from the remote access is strictly prohibited outside of what is defined and approved within the written procedures.

Surveillance room equipment must have total override capability over all other remote access service equipment located outside of the surveillance room. Critical areas, table games, and PTZ cameras covering critical areas and table games will be at a minimum rate of 22 FPS with two fields per frame and must be of sufficient clarity to meet Division requirements. Recording of non-critical areas will be at minimum rate of five FPS with two fields per frame and must be of sufficient clarity to meet Division requirements.

If the licensee's surveillance system records its working monitors (work stations) or call up monitors at a rate of 22 FPS or more, the requirement for FPS on its PTZ cameras covering critical areas and table games will be considered met.



**Colorado Limited Gaming Control Commission**  
***Internal Control Minimum Procedures (ICMP)***

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**FORMS**

Following is a description of the forms discussed in this section. In some cases, sample forms are provided. **It is the licensee's responsibility to ensure that all forms meet ICMP requirements.** See Section H. Digital Surveillance for further clarification.

**Surveillance Equipment Maintenance Log**

A log which documents all maintenance to surveillance equipment.