United States Department of Agriculture
Agricultural Marketing Service
Federal Grain Inspection Service

Directive

9160.1 December 15, 1999

CLOSED-CIRCUIT TELEVISION INSTALLATIONS

Contents

1. PURPOSE

This directive establishes the Federal Grain Inspection Service's (FGIS) policy regarding the approval and use of closed-circuit television (CCTV) for monitoring official grain inspection and weighing activities.

2. POLICY

CCTV may be used by official personnel to monitor inspection and weighing activities, provided the requirements in this directive are met. Purchase, installation, and maintenance of CCTV systems are the responsibility of the grain facility. Acceptance for official use does not imply or grant approval of compliance to any Federal, State, or local laws or codes.

3. RESPONSIBILITIES

a. FGIS Field Offices and Agency Managers

(1) Determine monitoring requirements for inspection and weighing activities at each service point.

(2) Evaluate installations for adequacy and compliance with this directive.

(3) Establish contingency procedures for the applicable Facility Handbook for when CCTV systems fail.

(4) Maintain records on the installation, evaluation process, and system approval criteria.

(5) Provide written approval to (a) the facility installing the CCTV system; (b) the field office when an agency manager issues the approval; and (c) the Weighing and Equipment Branch.

b. Facility

To obtain approval to use CCTV for official services, facilities must submit to the Agency providing service, in writing, the following information: (1) facility name, address, and contact; (2) description and purpose of installation; (3) intended location of cameras and monitors; (4) proposed dates of installation; and any additional technical and operational information requested by FGIS.

4. EQUIPMENT SPECIFICATIONS

FGIS does not recommend or endorse any particular model of manufacturer of CCTV equipment nor is it the intent of this directive to dictate system design. The following are minimum requirements and other considerations for CCTV equipment used in official monitoring of grain inspection and weighing. Requests for time-lapse recording of CCTV should be made directly to the Weighing and Equipment Branch in headquarters. Time lapse recording is generally used with other automated monitoring equipment.

Specification/Feature	Determination By:	
	Field Office And Agency	Field Office And Facility
Cameras		
Positioning and number required	X	
Black & White	X	
Standard or environmental housing		X
Light limiter or white peak clipper		X
Horizontal resolution lines	X	
Automatic gain control		X
Auto or manual focus		X
Power Supply		X
Automatic camera identification		X
Operating temperature range		X
Monitors		
Multiple function or dedicated	X	
Black & white or color	X	
Screen size (12 minimum)	X	
Resolution (Color-300 minimum)	X	
(B&W-700 minimum)	X	
Desk top/Rack mounted	X	
Lenses		
Fixed focal length		X
Motorized zoom lens		X
Auto iris		X
Camera Housing		
Indoor/Outdoor		X
Dust proof/Moisture proof		X
Explosion proof (pressurized)		X
Camera Mounts		
Indoor/Outdoor		X
Ceiling/Wall/Parapet		X
Remote Positioning Devices		
Variable Speed		X
Auto pan feature		X
Axis of motion pan/tilt		X

5. SYSTEM OPERATIONS

A CCTV system installed for official monitoring purposes shall provide visual information equal to that provided by official personnel at the camera. Official personnel should regularly verify, during routine elevator checks, that the monitoring covered by CCTV is being accomplished correctly. Any time the areas viewed by CCTV are diminished for any reason (i.e., equipment failure, darkness, fog, etc.), stop using the system and start backup procedures outlined in the Facility Handbook.

a. Access

All monitors, camera controls, and associated monitoring equipment must be accessible to official personnel in their normal working position.

b. Controls

All equipment must be under the control of official personnel, including tilt, pan, zoom, light aperture (iris) controls, and switches for changing camera monitoring viewing as applicable. Switches that allow elevator personnel to operate cameras upon the elevator's request or when official personnel are not present are permissible.

c. Equipment Malfunctions

Supervisors should notify elevator management, in writing, by issuing an FGIS-9601, Repair/Modification Notice for correcting problems such as cleaning dirty lenses and other more severe problems.

d. Night or Low Light Use

Special consideration for sufficient lighting or special cameras that work in low light conditions may be necessary.

6. SYSTEM REQUIREMENTS

This section provides system performance guidelines for specific inspection and weighing monitoring functions. Other monitoring applications of CCTV are permitted at the field office manager's discretion.

a. Carrier Identification

Systems used to obtain carrier identification must provide continuous observation of the identification during loading/unloading or be accompanied by standard operational procedures that ensure official personnel obtain the proper identification before delivery of official service.

b. Verify Cleanout

Systems used to verify grain cleanout disposition in modes of conveyance shall view all possible areas where grain may remain. When cleanout is incomplete, the grain must be physically examined for quality and estimated quantity. If identification of type of grain is required, color monitors must be provided.

c. Monitor Control Rooms

This capability is needed in situations where diversion points are not controlled by railcar security seals, locks, or electronically controlled lockouts, and grain flow paths are usually supervised at the control board by the official weigher. Control room monitoring may also be required where official weighers are placed in remote locations to verify the scale weight display to the official printer. Depending on the supervision needed, multiple cameras or cameras with zoom, pan, and tilt control capability may be needed for control room monitoring. Unless periodic monitoring is acceptable on every function being monitored, the CCTV system must have the capability to monitor all functions simultaneously using color monitors and cameras.

d. Verify Carrier Placement

This use lets official weighers view railcar and truck placement on railway track and platform vehicle scales from remote locations. Views of both sides are required to verify that unwanted material, objects, or persons are not on the scale e used if other provisions are made to verify that the carriers are placed properly on the scale. With railcars, these provisions also must verify that they are uncoupled.

e. Verify Stowage

CCTV systems are often used to verify the stowage of grain that has been inspected and weighed. These systems are also used to monitor spills and weather conditions during loading. If camera views do not allow total viewing of carriers and carrier holds, then the CCTV system may need to be used in combination with periodic physical inspections. If type of grain determination is required, color cameras and monitors must be used.

f. Monitor Spills

Spill problem areas may be monitored with CCTV. Such areas as conveyor belts and belt junctions, open turnheads, trippers, conveyor belt drive pulleys, and wharf areas are typical problem areas. Spill estimates shall not be made with the use of CCTV. Using methods in combination with CCTV also may be useful to monitor areas where spills are likely to occur (i.e., belt speed sensors, level indicators, and motion alarms).