Food Quality

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Remote video auditing bolsters food safety

Re-purposing investments in video surveillance equipment at food processing plants can improve food safety, security and compliance.

By Adam Aronson

Nowhere is it more important to follow rules and regulations than in food processing -- the health and welfare of the public is at stake.

A new service, called remote video auditing (RVA), makes use of existing video hardware to monitor and audit operational performance at "critical control points" in the food processing chain, allowing processors to realize increased return on investment (ROI) and higher food safety standards through new levels of compliance and oversight.

Managers are sent weekly e-mail "score cards" summarizing an individual location's performance on a pass/fail basis. These reports contain pass/fail hyper links to video clips and still images, providing visual documentation of the events uncovered by the auditing service.

RVA incorporates HACCP, sanitation and food safety criteria through the integration of a plant's security and food monitoring systems. By re-purposing existing equipment – and using enhanced video services – a bevy of benefits are produced for processing plants, most notably security, compliance, productivity, customer service and cost containment.

The heart and soul of a security system is the cameras and recording devices. RVA software leverages this infrastructure by integrating with customers' existing hardware like digital video recorders (DVRs) and data sources such as security systems and food processing temperature gauges. RVA systems are generally compatible with any existing cameras at a processing facility.

While video surveillance and recording equipment are common fixtures in the food processing industry, alone and unmonitored, the recorded data is usually worthless. Audited and analyzed, however, the findings are very valuable.

Off-site monitoring of facilities takes place daily through a review of images taken through the video cameras. Remote video auditors routinely examine the still pictures associated with a procedure or some type of an alarm event.

Examples of a procedure range from such simple inquiries as, "Was a food processing area clean?" and "Were food safety regulations followed?," to more elaborate analysis of operations at critical control points, including blending and cooking procedures; to injection and tumbling areas; chilling and heating processes and raw materials receiving.

Sophisticated findings

RVA can also benefit processors who demonstrate higher standards of food safety compliance by sharing these third-party generated food safety reports with their retail customers, grocers and restaurant chains. "A processing plant that sells $100 million of meat a year, for example, might invest about $250,000 [per] year for this service, which is less than a quarter of a penny for every pound of meat sold,' says Arnie Mikelberg, former

president of Armour Swift. (Fayetteville, N.C.) "The return on investment would begin to accrue immediately after installation."

RVA, therefore, offers a threefold value proposition - increased return on investment, reduced overhead and improved efficiency.

"Video auditing can improve food safety and ensure the viability of a company and its products," says Dr. Al Baroudi, president of the Food Safety Institute International, which provides consulting services to Hidden Villa Ranch, Yum Brands and Vons (a Division of Safeway). "Remote video auditing is a cost-effective solution that will ultimately increase profit margins as processing plants perform more efficiently."

A black and white world

There is no "gray" area in food processing; rather it is a black and white industry. Stemming from these stringent guidelines, RVA's process is pass or fail. Remote auditors review images up to 30 different times during a day per procedure or alarm event, and if they detect any problems in the pictures, they identify those pictures as 'fail' pictures. On the other hand, images that are not suspicious receive a "passing" mark.

Emailed reports, consisting of statistical summaries, are provided on a weekly basis to customers. In addition to statistics, and pass/fail reports, hyperlinks to each and every video event reviewed are provided. Processors can then access and review the actual recorded video and still images through links that are provided with the emailed reports.

The insight that RVA affords customers is significant -- customers can specifically see which locations are performing well, which are performing poorly, and assess the specific sources of strengths and weaknesses within those areas. It's a viable offering and a valuable service.

Key camera placement

The success of any RVA system depends on the effective placement of cameras and ensuring each facility has enough cameras to monitor critical control areas. Cameras locations should be strategically positioned to monitor the critical components of a business and where things break down operationally, so that improvements can occur.

At a meat processing plant for example, cameras might be placed on the grinding and blending areas, because it's deemed critical to ensure that the meat blending process is conducted in a specific order. If it's not, processors risk having to discard a 10,000 lb. batch of meat that costs the plant up to $2 a pound. For the operation of a $50 million to $100 million meat processing plant, that level of waste causes serious concern and significant costs.

Left unattended, and occurring once or twice weekly, those numbers could amount to millions of dollars in lost goods.

Such blunders might be due to breakdowns in the training process or the need for better monitoring of operational procedures. Caught early on through the use of RVA, the costs are sustainable; left unattended the risks become irrevocable.

RVA helps processors identify where breakdowns occur and gives regional managers, and even plant or line managers, the information that they need to coach their staff and say, "You are doing a great job over here, but let's make sure that we are providing you with the kind of training and guidance that you need to make sure that we don't lose another 20,000-lb. batch of meat." Favorable studies have shown that monitoring combined with coaching significantly improves employee performance and retention.

About the author

Adam Aronson is chief executive officer of Arrowsight, a New York-based developer of remote viewing services and software.