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## Food Safety in the Plant: 2019



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# Food Safety: Your Top Concern for 2019

Our annual Manufacturing Outlook Survey keeps food and worker safety paramount and shows optimism about the new year but worry about staffing.

**F**ood safety came in as the top concern for 2019 in Food Processing's 18th annual Manufacturing Outlook Survey - which it does every year in this survey. 27 percent of respondents ranked it as their top priority, and its collective, weighted ranking was 7.2 on a scale of 10. Worker safety was next, garnering 17 percent of first-place votes and a score of 6.0.

Asked which strategies they intended to pursue to ensure safety, the most frequent response (with multiple ones permitted) was "employee training," cited by 74 percent. This was followed by "third-party certification," at 44 percent; and "more or improved

sanitary equipment" and "improved sanitary design of equipment," both at 39 percent.

The Food Safety Modernization Act (FSMA) has inspired changes in many of our respondents' plants. Just over half said they have altered their documentation or record-keeping procedures to comply with FSMA. In addition, 40 percent said FSMA has inspired them to improve traceability in their supply chain.

This is an improvement that probably will be driven increasingly by retailers and others at the end of the chain, such as Walmart, which informed its leafy greens suppliers in September 2018 that they will

## HOW THE FOOD SAFETY MODERNIZATION ACT HAS AFFECTED OPERATIONS

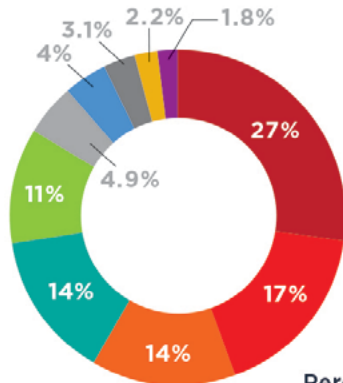
Altered documentation/record-keeping	50%
Improved supply chain traceability	40%
Increased/improved product testing	34%
Altered sanitation procedures	30%
Installed more sanitary equipment	21%
No changes required	25%

have to start certifying their shipments with blockchain technology by the end of January 2019.

Other FSMA-inspired improvements include: increasing or improving product testing (34 percent); altering sanitation procedures (30 percent); and installing equipment with better sanitary design (21 percent).

One respondent noted that his company had a plant

## MANUFACTURING PRIORITIES



	Percent ranking first	Avg.
Food safety	27%	7.2
Worker safety	17%	6
Automation	14%	4.9
Cost control	14%	6.1
Capacity expansion	11%	5.3
Skilled worker recruitment	4.9%	5.5
FSMA readiness	4.0%	4.9
Sanitary design	3.1%	4.9
Traceability of product	2.2%	5
Traceability of supplies	1.8%	5.2

\*Based on 10-point scale, 10 being the highest

under construction and that FSMA “changed plans for facility approach.” Other write-in responses included “compliance training,” “sanitary transport,” “moved us toward quality software to manage all the current programs” and “label changes to all items.” (Another 25 percent reported that FSMA has not required their companies to do anything differently.)

Recalls are the highest-profile events related to food safety, and 9 percent of our

respondents reported experiencing one. Most (26 percent) said no real health issue was involved and that the recall constituted erring on the side of caution. Twenty percent said the issue was mislabeling, and 18 percent said their recalls involved “biological, chemical or foreign materials.” The product in question was recalled before reaching stores or restaurants in 5 percent of cases. One respondent wrote simply, “Supplier had issues.”

## FINGERING DIGITIZATION

Digital technology has long been perceived as one of the most important ongoing trends in the food industry. Asked about digitization, however, most of our respondents (57 percent) named arguably its most mundane aspect: replacing paper with electronic records. The next most popular responses were replacing analog with digital devices (38 percent), shifting from local servers to cloud computing (34 percent) and providing more remote access to machine controls (34 percent).

“Electronic records” and “control systems” came in fourth and fifth, respectively, in rank of where our respondents expect

## IMPROVEMENTS IN DIGITAL TECHNOLOGY

Replacing paper with electronic records	57%
Replacing analog devices with digital	38%
Shifting from local servers to the cloud	34%
Providing more remote access to machine controls	34%
No action/wait-and-see approach	18%
Granting OEMs access to machine controls	11%
Other	2.6%



## CAPITAL SPENDING PRIORITIES

	AVG. SCORE ON 9-POINT SCALE
Replacing older with more sanitary equipment	5.8
Packaging equipment	5.7
Plant and worker safety	5.4
Electronic records	5.1
Control systems	5.0
Software	4.6
Laboratory equipment	4.6
Robotics and automation	4.5
Digital field devices	4.4

capital spending to occur in 2019. The first three were “replacement of older equipment with items of better sanitary design,” “packaging equipment” and “plant and worker safety.”

The drive to improve, technologically and in every other way, is an inevitable consequence of the diversification of American food, says Stephen Dombroski, a senior manager with software vendor QAD and a former executive with ConAgra Foods. As SKUs proliferate, as companies try harder to cater to consumers’ individual preferences, they will have to become more adept and sophisticated.

“There were three brands of frozen pizza when I was a

— there are 7,000 SKUs of pizza, because consumers’ tastes are changing. All of these trends like technology are now translating into the food industry. Companies are making more product, they’re transitioning products in and out, and that’s impacting the entire supply chain, all the way from distribution to the grocery stores.”

Besides food safety, optimism was strong in our survey. 30 percent were “very optimistic” about

kid,” he says. “You can now get venison, guava, mint pizza, thin crust, thick crust, deep dish, Chicago-style

manufacturing prospects for the new year, the highest figure we’ve had in several years. Another 45 were somewhat optimistic.

Many respondents were looking forward to increased hiring, output and capital expenditures. But they also were concerned about getting enough labor, both skilled and unskilled.

Asked about staffing plans for 2019, a near-majority – 48 percent – said their companies planned to add to the workforce, while another 33 percent said they will probably maintain current staffing levels. Only 13 percent indicated that they will reduce their workforce this year.

### WHO ANSWERED THE SURVEY

Our 2019 Manufacturing Survey, conducted online in the last quarter of 2018, garnered 232 responses from food & beverage industry professionals. In terms of what is manufactured, the most common categories were baked goods, at 11 percent; and meat/poultry/seafood and further processed foods/specialties, at 10 percent each. In number of employees, the most frequent range was 101-500, at 33 percent, followed by 51-100 (17 percent) and 11-50 (16 percent).

Our 2019 Manufacturing Survey had a total of 24 questions. To see all the infographics and the full story, plus the demographics of who answered, go to [hubs.ly/H0g5znp0](https://hubs.ly/H0g5znp0).

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# FSMA, Sanitary Design Principles and the Role of Scales in Food Safety

By Rice Lake Weighing Systems

## WHAT IS THE FOOD SAFETY MODERNIZATION ACT (FSMA)?

On January 4, 2011, President Obama signed the FDA Food Safety Modernization Act (FSMA) into law. The FSMA brought a much-needed focus of food safety laws into the food processing industry as well as to consumers, and the general public as a whole. The signing of the FSMA was arguably the largest reform to food safety in the previous 70 years. According to the U.S. Food & Drug Administration (FDA), the FSMA “aims to ensure the U.S. food supply is safe by shifting the focus from responding to contamination to preventing it.” The key focus being prevention versus reaction in regards to food safety, from all aspects and stages of food — from the farm to the table.

The FSMA was spurred into action from an increase in foodborne illnesses in the U.S. The Centers for Disease Control and Prevention report almost 1 in 6 Americans fall ill to foodborne diseases each year.

Foodborne illness became an issue of public health in the early 2000s, enabling the FDA to set higher preventative standards for food safety and elicit enforcement agencies to hold companies



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to these standards and contain any potential problems before they become a widespread risk of foodborne illness. To do this, the FDA under the FSMA can order companies to recall when needed.

The primary role of the FSMA is prevention. As noted by the FDA, “for the first time, FDA will have a legislative mandate to require comprehensive, science-based preventative controls across the food supply.” This legislative power ensures all U.S. companies that contribute to the food supply, no matter their size, are subject to the authority of the FDA and their preventative and responding agency. Under the Prevention section of the FSMA, controls are given to the FDA for the following:

- Mandatory preventive controls for food facilities
- Mandatory produce safety standards
- Authority to prevent intentional contamination

These measures need to be qualified by scientific justifications by the FDA and are enforced by legislation. Under the mandatory preventative controls for food facilities is the addition of a preventative control plan that includes the following:

1. Evaluating the hazards that could affect food safety
2. Specifying what preventive steps, or controls, will be put in place to significantly minimize or prevent the hazards
3. Specifying how the facility will monitor these controls to ensure they are working
4. Maintaining routine records of the monitoring

5. Specifying what actions the facility will take to correct problems that arise.

Purchasing and using equipment that meets the Sanitary Design Principles (SDP) falls under these mandatory preventative measures as a control to prevent or minimize the possibility of foodborne contamination and disease.

## WHAT ARE THE SANITARY DESIGN PRINCIPLES (SDP)?

The SDP was developed by the Equipment Design Task Force (EDTF), a group of representatives from meat and poultry processing companies, and was published in 2013.

The EDTF’s purpose in creating the SDP was to help equipment manufacturers and food processors ensure their equipment designs met specific criteria to reduce the risk of pathogens contaminating food. Although the SDP was created by representatives by businesses already in food processing, the intent is for the SDP to serve the entire industry, creating a standardized system of criteria for equipment to reduce contamination and recalls, benefiting food processors and consumers alike.



Download the complete white paper **here**.



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# Validation, Verification and Monitoring For Product Inspection Equipment

By Mettler Toledo Product Inspection

**T**his white paper is aimed at Quality Managers and Production Managers in food manufacturing organizations, although manufacturers in other industries may find it relevant. It gives guidance on the essential processes of validation, verification, and routine performance monitoring for in-line product inspection equipment.

These terms are often used interchangeably, creating confusion within organizations and across industries because people interpret and use these terms in different ways. In fact, each term is a distinct process that has a clear purpose and role to play at different points within the equipment lifecycle. It is important to understand the purpose of each process to make sure that validation, verification and routine performance monitoring tests are performed to comply with regulatory requirements; particularly where the equipment is designated as a Critical Control Point (CCP).

## VALIDATION

Validation is the initial qualification of a product or process against the stated design specification. The International

Featured Standards (IFS) organization defines validation as “confirmation through the provision of objective evidences, that the requirements for the specific intended use or application have been fulfilled.” In 2008, the Codex Alimentarius Commission defined validation as “Obtaining evidence that a control measure or combination of control measures, if properly implemented, is capable of controlling the hazard to a specified outcome.”

Validation aims to answer the question, “will this piece of equipment meet the specified objectives?” Validation belongs at the start of the equipment lifecycle when the equipment is first installed (see Figure 1). However, re-validation may be required if substantial modifications to the equipment, or the products being inspected (size, packaging material, etc) are made at any point after installation.

## VERIFICATION

Verification is the periodic qualification that the equipment continues to be effective. The IFS defines verification as “Confirmation through the provision of objective

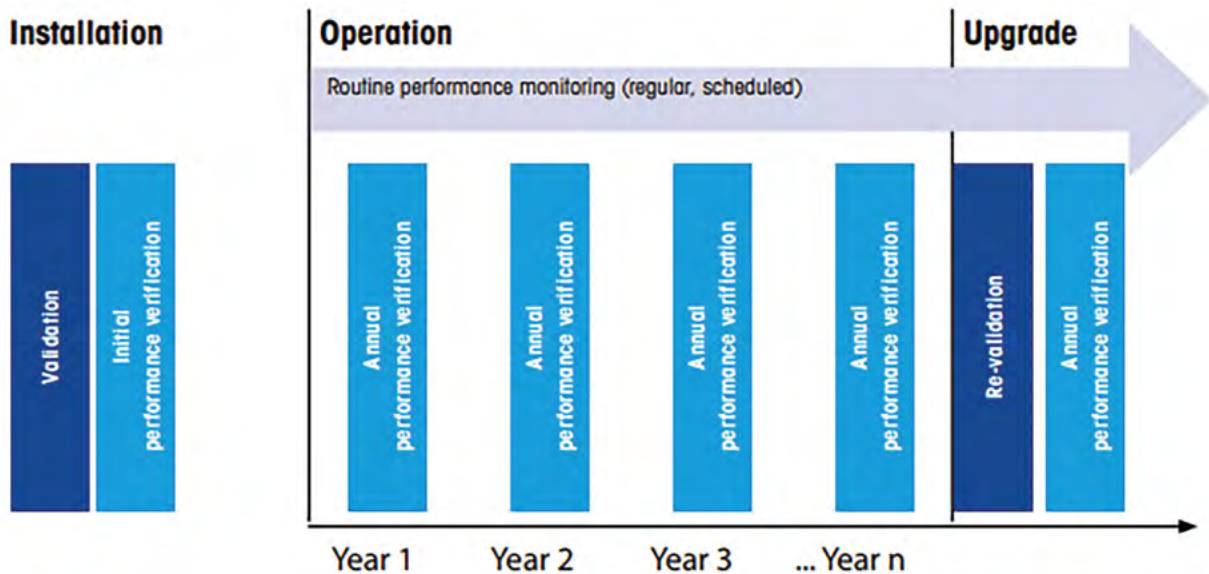


Figure 1: Validation, verification and routine performance monitoring points along the equipment lifecycle continuum.

evidences that specified requirements have been fulfilled.” Verification activities need to begin after validation is completed.

In 2008, the Codex Alimentarius Commission defined verification as “The application of methods, procedures, tests and other evaluations, in addition to monitoring, to determine whether a control measure is or has been operating as intended.” Therefore, verification uses standard, formal processes to answer the question, “is the specified equipment under control and operating as expected?”

As Figure 1 highlights, verification is a periodic assessment that happens at regular intervals throughout the life of the equipment. Formal performance verification is typically an annual process to support audit requirements.

## ROUTINE PERFORMANCE MONITORING

Routine performance monitoring (or “monitoring” for short) differs from the processes of validation and verification in that it is a series of performance verification checks completed at frequent, regular intervals. These checks are designed to determine if processes are under control. IFS Version 6 defines monitoring as, “The act of conducting a planned sequence of observations or measurements of control parameters to assess whether a CCP is under control.”



Download the complete white paper [here](#).



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# Sanitary Filter Housings

By Rosedale Products

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- Operating Pressure: 100 psi (6.8 bar)

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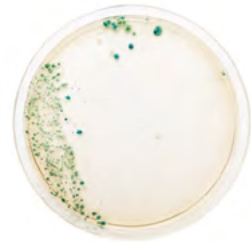
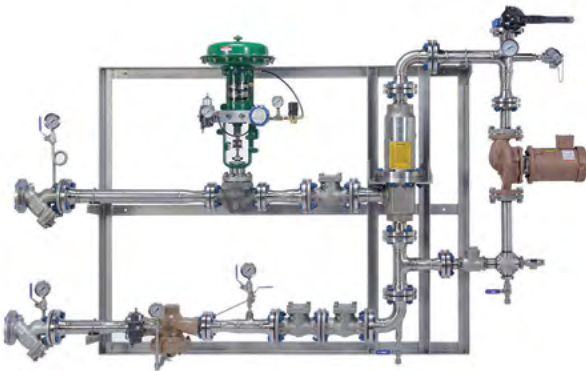
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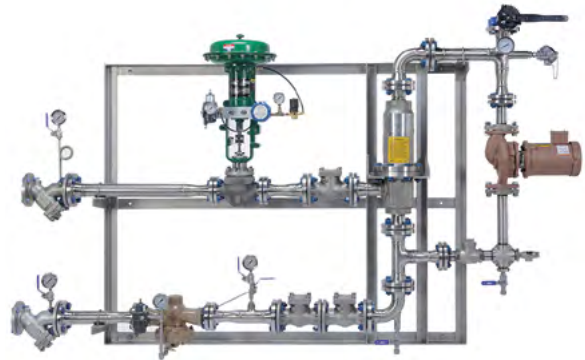
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Pick Variable Flow Heater

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