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Grayway

Six Things Pet Food Processors Should Know Before Building a New Facility

Regulations:
What 2022 Will Bring for Pet Food Processors



Modernizing
Pet Food Operations
from the Ground Up





Welcome.



Stephen Gray
President & CEO
GRAY, INC.

Today's pet food manufacturing landscape is modern and sophisticated, putting food safety first. Pet food operations that do not meet these criteria will quickly fall behind. As a result, the industry is experiencing an increase in new pet food facilities.

In this issue of the **Grayway**, we dive into six areas pet food processors must consider before embarking on a new or improved operation: safety, engineering & design, compliance, traceability, equipment, and sustainability.

We also take a deeper look at FSMA and California's Proposition 65. We discuss the ins and outs pet food processors have in complying with these regulations, while also emphasizing why it's best to design and build facilities with compliance in mind.

When these factors are integrated, pet food manufacturers have the ability to run a flexible and safe operation.



Gray practices methods which protect our environment.

Keys to a Flexible & Safe Pet Food Operation

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Six Things Pet Food Processors Should Know Before Building a New Facility

Today's pet food processors must be flexible to adapt to sudden economic disruptions and changing consumer demands, including the personalization of products. Industry 4.0/Internet of Things (IoT) technologies are essential for the easy transition to different product and packaging needs, without compromising food or worker safety. In particular, increased levels of automation are critical for boosting operational efficiency, product quality, and profitability. Ensuring segregation of food products, temperature controls, and hygienic product flow is increasingly important for safety, especially as more processors add raw meat products to their offerings. With COVID-19, of course, new processing plants must also take into account worker safety and meet all CDC guidelines.

Before embarking on a new operation, pet food processors must consider many key factors.



The continued humanization and premiumization of pet food products requires a higher level of sophistication when it comes to the equipment and processes utilized during production.

1. Food Safety Overview

Pet food is highly regulated in the U.S. and must comply with all federal and state requirements, including the [Food Safety Modernization Act \(FSMA\)](#). This includes meeting current good manufacturing practices (cGMPs) and developing food safety plans that detail their food safety measures, ranging from traceability of ingredients to manufacturing cleanliness to implementing a recall. These are best achieved using IoT technologies such as automation, robotics, and machine-to-machine communication.

2. Engineering/Design Considerations

The first step in constructing a new processing plant is fully understanding the flow of workers, materials, finished products, and waste movement. With this knowledge, hygienic zoning

and segregation can then be designed into the plans to maximize worker and product safety, including single direction flow of materials, from raw ingredients to final product. Automation technologies, data acquisition and analytics, and segregation and hygiene strategies can then be installed. Advanced air ventilation and filtration systems can also be installed for enhanced worker safety.

3. Compliance Needs

Complying with (or exceeding) federal and state requirements is easiest to achieve when processing facilities are specifically designed to make compliance as easy and streamlined as possible, thereby reducing errors and maximizing quality. Automation and IoT are critical for capturing data, in real time, that track key performance

A flexible design will help pet food processors meet fluctuating market and consumer demands.

indicators. Linear flow is essential for establishing material segregation and hygienic zones. Real-time monitoring of temperature and humidity is essential for keeping food ingredients safe. Operators are automatically notified of environmental variances through IoT, including alarms and alerts.

4. Traceability Factors

COVID-19 has proven the importance of having an agile supply chain. Traceability is essential for quality control in ingredients, FDA audits, and consumer satisfaction. Sophisticated software systems, which capture, record, and analyze ingredient data, can track ingredients at any point in the supply chain. Traceability data also improves supply chain efficiency and security by identifying choke points and other delays. Traceability is becoming more important to the consumer—for example, more companies are using cloud-based tracking systems that trace every ingredient back to the supplier, data which can be used to create positive consumer awareness.

5. Equipment Needs

Safe and efficient food processing is all about the latest equipment and technology. Easy-to-clean equipment is critical, especially in hygiene zones or where equipment is processing raw meat. These machines must be easy to disassemble and clean to minimize production delays. Automation also improves machine performance and maximizes throughput. Other IoT-enabled capabilities include artificial intelligence, machine-to-machine learning, data analytics, and predictive maintenance using the latest sensor technologies, all of which help achieve top OEE (overall equipment effectiveness)

6. Sustainability

Consumers increasingly seek to do business with companies that share their concerns for the environment. Sustainable ingredient sourcing is driving pet food product development and is very important for brand awareness and loyalty. Sustainable packaging is also in high demand—for example, [Pet Food Processing](#) reports that three quarters of respondents in a recent survey indicated they would pay more for sustainable packaging. Some companies are also striving to achieve zero waste in their operations, meaning that all materials or resources that enter a facility are used, recycled, or utilized in a positive way, such as being composted or burned as fuel, with no waste taken to the landfill.

Summary

In order to establish a modern, efficient, and sustainable pet food processing facility, it is essential to fully understand what the processor wants to achieve. This may include planning for possible expansions in the future, so that the flow patterns established in the main plant will not be interrupted. A flexible design will help pet food processors meet fluctuating market and consumer demands, giving them a competitive edge in the increasingly crowded pet food marketplace.



Learn more about what pet food processors need to know before they embark on a new operation.

Regulations: What 2022 Will Bring for Pet Food Processors



For 11 years, the standard for the food & beverage industry has been the [Food Safety Modernization Act](#) (FSMA). This federal law requires food & beverage operators, including pet food manufacturers, to comply with current good manufacturing practices (cGMPs) and other food safety measures, which focus largely on efforts to prevent contamination and the spread of pathogens. As FSMA rules and other regulations evolve and manufacturing technology advances, pet food processors must remain diligent in adhering to federal rules and upholding high standards for food safety.

Staying Current and Compliant

FSMA was signed into law in January 2011 and establishes standards for preventing food-borne disease and preserving a safe, high-quality food supply for the U.S. These rules apply to all foods regulated by the Food & Drug

Administration—[about 78% of the country's food supply](#)—so food & beverage operators, including pet food manufacturers, must be well versed in knowing and maintaining compliance with these rules.

From equipment upgrades, IT and OT integrations, and increased automation, the industry is experiencing frequent and rapid changes. Any increase in production capacity magnifies the importance of remaining FSMA-compliant. Larger manufacturers must ensure that food safety quality assurance (FSQA) managers, food engineers, and food safety compliance officers are well informed and systematic in their approach to communicating the need for and implementing safe, up-to-date processes from procurement through distribution. Smaller operators can contact their [state Manufacturing Extension Partnership](#) (MEP) advisor for guidance on aligning their processes with the latest regulations.

Recent FSMA Developments

Whether for R&D purposes or testing of products currently in production, pet food manufacturers must be aware of FSMA's widening impacts as its implementation expands. The latest of the [FDA's final rules](#) for FSMA is [the establishment](#) of the Laboratory Accreditation for the Analyses of Foods (LAAF) program. The program is designed to create uniform standards for food testing and enhance FDA oversight of participating labs. The rule will eliminate conflicts from contrasting third-party test standards and improve communication among regulators, laboratories, and pet food processors.

The new rule took effect February 1, 2022, and grants the FDA authority to recognize accreditation bodies, set eligibility requirements for accrediting food laboratories, and establish standards for food testing under certain circumstances specified in the rule. In these instances, manufacturers of human-grade food and pet food must use LAAF-accredited laboratories for testing.

State Regulations Also Come into Play

States can also impose their own regulations on the food & beverage industry that go beyond federal regulations. For example, [California's Proposition 65](#), otherwise known as the Safe Drinking Water and Toxic Enforcement Act of 1986, continues to update [a long and growing list of toxic chemicals](#) every year.

Businesses must provide “clear and reasonable” written warnings to Californians if they may be exposed to potentially unsafe levels of carcinogens or reproductive toxicants. Warnings are only required if the rate of exposure to a listed chemical exceeds the limits established under Proposition 65, but these limits assume daily exposure and are relatively low.

Some companies—such as California pet food company Young Again—have chosen to add the Proposition 65 warning information to its food labels as a legal precaution, even though its products are contamination-free. “We use only lab-tested,

FDA-Regulated Products and Facilities



FDA oversees more than **\$2.7 trillion** in consumption of food, medical products, and tobacco.



FDA-regulated products account for about **20 cents of every dollar** spent by U.S. consumers.

FDA regulates about **78 percent** of the U.S. food supply.



This includes everything we eat except for meat, poultry, and some egg products.



More than **1,600** FDA-approved animal drug products.



621 FDA-licensed biologics products.

safe ingredients approved by AAFCO, the U.S. government agency responsible for approving pet food ingredients,” [the company states](#). “To be clear, none of the contents of our food are on the CA Prop 65 list of harmful ingredients. The statement has merely been added as a precaution so that we can continue to provide our pet food to California residents.”

Recordkeeping Is Key

To ensure maximum food safety and successfully navigate testing and audit procedures, pet food manufacturers must maintain proper records of their processes, including data regarding QA and sanitation that reflect regulatory compliance.

As regulations become more numerous, pet food processors can implement cloud-based software programs to monitor their efforts in real time. This includes tracking dates, deadlines, schedules, timelines, and the technical/operational details for systematically achieving compliance throughout the year. “Reg tech” tools include blockchain, artificial intelligence, automation, and machine learning, which help break through manual, siloed processes that can be inefficient, slow, and prone to error. “Implementing the right technology (and integrating those technologies thoughtfully where necessary) shores up gaps and creates a streamlined compliance process,” [states Ascent](#), a reg-tech company.

Looking Ahead

FMSA and Prop 65 are just two of the many regulations that affect pet food manufacturers. The regulatory landscape for the food & beverage industry will continue to evolve to provide

greater product safety and quality—from the first supply chain shipments of raw materials through production and distribution. Successfully maintaining compliance and food safety requires a proactive approach to regulation that’s grounded in awareness and clear communication. Coupled with the latest IoT technologies, such an approach will streamline the compliance process, improve product quality, reduce or eliminate recalls, build customer loyalty, and reduce overall compliance costs.



Implementing the right technology shores up gaps and creates a streamlined compliance process.

ASCENT

PROJECT SPOTLIGHT



saturn petcare

TERRE HAUTE / INDIANA

saturn petcare selected Gray to transform a former pharma manufacturing plant in Terre Haute, IN into a state-of-the-art pet food manufacturing operation. Gray provided design-build services on the nearly 200,000 s.f. facility, which produces wet pet food for cats and dogs in aluminum trays.

As the company’s first facility in the U.S., this location allows the company to provide enhanced services to its U.S. customer base, as well as the creation of specialty stores, supermarket integration, and discount stores.

saturn petcare is the largest, private-label pet food producer in Europe and manufactures more than 1,500 varieties of wet and dry food products for pets as well as specialty products.



Global leader in engineering, design, construction,
smart manufacturing, and equipment manufacturing.



10 Quality St.
Lexington, KY 40507

T: 859.281.5000

gray.com

