

Food Fraud

Definition

As defined by Michigan State University, a collective term used to encompass the deliberate and intentional substitution, addition, tampering, or misrepresentation of food, food ingredients, feed, or food packaging and/or labelling, product information; or false or misleading statements made about a product for economic gain. It may also include gray market or stolen goods.

Applicable Code Requirements

1. 2.7.2

Review Glossary Terms

1. Approved Suppliers
2. Crisis Management
3. Food Fraud Mitigation Plan
4. Food Fraud Vulnerability Assessment
5. Ingredients
6. Raw Materials

Implementation & Audit Guidance

What does it mean?

2.7.2.1 requires the site to identify their vulnerability to food fraud through all inputs including mislabeling, ingredient substitution and counterfeiting.

2.7.2.2 requires the site to mitigate identified vulnerabilities.

2.7.2.3 the site is to provide instruction on food fraud mitigation strategies which surely includes how to identify situations that poses a risk of food fraud and what actions to take when such risks are identified; receiving procedures; identifying approved suppliers; and access to raw materials, ingredients, labels, and finished product.

2.7.2.4 the site is to review annually the plan documentation to ensure all finished products, ingredients, labels, raw materials, and packaging are addressed by the plan and any product formulation changes whether internal or from suppliers are reviewed and addressed. The site will also want to review their technical resources, for example if an ingredient data base is used to be sure the information provided is current, complete, accurate, and provided in a timely manner. All records of these reviews are to be maintained.

Why is it in the Code & why is it important?

2.7.2 This is a mandatory clause.

Ingredient substitution and deliberate misrepresentation of food for economic gain is far more prevalent than many realize. What may be thought as an innocent substitution – one white fish species for another - may cost the industry millions of dollars, jeopardize the environment, and could put allergic or intolerant consumers at risk for severe health issues.

A vulnerability assessment is the site's first step. A list of all ingredients, raw materials, finished product, packaging, and labels serves as a guide. Many sites find the use of an ingredient database or government tracking website useful in identifying potential threats, but depending upon the site's inputs and products, this is not always necessary. University and government

resources are available, particularly if there is a regulation in the country of production or sale requiring a food fraud plan. Additionally, a threat assessment matrix may be used to categorize and rate each identified vulnerability.

The mitigation plan then specifies the methods by which the identified vulnerabilities are controlled. Determine which aspects of the supplier approval, site security, employee training, purchasing, receiving, storage and label control plans are adequate to manage the identified threats and strengthen the programs as necessary.

Due to the breadth of threats, employee training is likely to span all personnel, but verify what is appropriate for the site. The food fraud plan will be useful in identifying who needs to be trained and on what. Again, look to available resources from universities, government agencies and trusted experts for guidance.

Retain all program development, verification, training, and annual review records.

See RIO Chart on following page.

RIO Road to Audits (Records, Interviews, and Observations)

Records	Interviews	Observations
<p>The following are examples of records and/or documents to assist in the implementation and review of this topic:</p> <ul style="list-style-type: none"> ■ Vulnerability assessment ■ Mitigation plan ■ Training records ■ Annual review of vulnerability assessment and mitigation plan ■ Corrective actions related to suspected or actual incidences of food fraud ■ Investigation records for any suspected or actual incidences of food fraud ■ Supplier approval process 	<p>The following are examples of people to interview to assist in the implementation and review of this topic:</p> <ul style="list-style-type: none"> ■ Senior Site Management ■ Production Personnel ■ Human Resources / Training ■ Purchasing/ Receiving <p>The following are examples of interview questions to ask to assist in the implementation and review of this topic:</p> <ul style="list-style-type: none"> ■ Describe the process to determine susceptibility the to food fraud. ■ How does the site mitigate the possible threat of food fraud from approve suppliers? ■ Who is part of the food fraud plan development and review team? ■ How are employees trained to identify and mitigate instances of food fraud? ■ What technical resources are used to identify food fraud risks within the supply chain? ■ What are the steps if a suspected threat of food fraud to one of its main ingredients or raw materials is identified? ■ How are supplier changes to formulation, ingredients or packaging communicated? ■ What actions are taken to mitigate internal threats? 	<p>The following are examples of observations to assist in the implementation and review of this topic:</p> <ul style="list-style-type: none"> ■ How are food fraud events associated with the raw materials, ingredients, packaging, and/or finished product identified or considered? ■ Is the vulnerability assessment and mitigation plan complete and thorough? Have all inputs been considered? ■ Does the plan consider and address threats within the site? ■ Is there the ability to accurately predict a potential threat to the product and process? ■ The ability to accurately mitigate a potential threat to the product and process? ■ Has the plan been reviewed in the past year? What changes or observations were made? ■ Have new products, ingredients, raw materials, or packaging added in the past year been assessed as part of the plan?

Additional References

- Codex Alimentarius International Food Standards Food Fraud Definition
<http://www.fao.org/fao-who-codexalimentarius/committees/codex-regions/cceuro/about/food-fraud/en/>
- European Commission Food Fraud Definition
https://ec.europa.eu/food/safety/food-fraud/what-does-it-mean_en
- USP Food Safety and Integrity Solutions Food Fraud Mitigation Guidance
<https://www.usp.org/sites/default/files/usp/document/our-work/Foods/food-fraud-mitigation-guidance.pdf>
- NIH Library of Medicine Defining the Public Health Threat of Food Fraud
<https://pubmed.ncbi.nlm.nih.gov/22416717/>
- NPJ Science of Food Global Perspectives on Food Fraud
<https://www.nature.com/articles/s41538-019-0044-x>
- IFT Prescreening Ingredients for a Food Fraud Vulnerability Assessment
<https://www.ift.org/news-and-publications/food-technology-magazine/issues/2020/november/features/prescreening-ingredients-for-a-food-fraud-vulnerability-assessment>