

# The Foundation of Food Safety: A Current Good Manufacturing Practices Education

## INTRODUCTION AND JUSTIFICATION:

Foodborne illness is a very real and persistent health threat to the public, as annually an estimated 48 million people get sick from a foodborne illness, with 128,000 hospitalized, as well as 3,000 deaths (CDC, 2020). In the past decade there have been numerous efforts by the federal government to combat this threat, chief among them, the Food Safety Modernization Act (FMSA) of 2011. Through this act, the Food and Drug Administration took to a more proactive approach to prevent foodborne illness and sought to strengthen their tactics to ensure public health (FDA, 2020). This act produced many changes to the world of the American food manufacturer and eventually the FDA created the regulation 21 CFR Part 117 “Current Good Manufacturing Practice, Hazard Analysis, and Risk Preventive Controls for Human Food”. Within subpart B of this regulation, the FDA created expectations for the producers of our nation’s food which are referred to as “Current Good Manufacturing Practices”. It details clear and concise expectations for producers, stating that establishment management must take reasonable measures to ensure disease control, cleanliness, and maintaining of sanitary operations, amongst several items (FDA, 2020). While food safety managers may be aware of regulatory requirements and produce rules with this knowledge regarding how their facility operates, a thorough explanation of key points of this regulation to front line employees would benefit public health greatly. In my own personal experience as a manager within facilities of our nation’s largest food companies, I often see that the direction given to employees is without explanation. They are made aware of rules that the company implements but are not offered the scientific reasoning or made aware of the force of the federal regulation behind it. This issue is exactly what I look to eliminate with this document.

## PURPOSE:

The purpose of this presentation is to better educate the American food production employee to the critical role they have in ensuring public health.

## OBJECTIVES:

Within the presentation I plan to accomplish three tasks in educating the American food production employee. First, I plan to explain the purpose and legal significance of 21 CFR Part 117. Second, I intend to explain the reasoning behind certain subsections that specifically apply to employees. Third, I will validate their knowledge. I plan on accomplishing this through a brief but detailed presentation that can be administered by food company management. This presentation will present clear examples of how the regulation applies to their daily work life as well as the risk not following it can present to the health of their customers. In the end, a simple knowledge test of nine questions will verify whether the employees now grasp the true significance and logic behind the regulation that guides their everyday work life. The main items from 21 CFR Part 117 I plan to highlight are particularly subsections 117.1 (Personnel), 117.35 (Sanitary Operations) and 117.40 (Equipment and Utensils), although numerous other subsections are included as well.

In the section devoted to 21 CFR 117.1 there are multiple items of focus which aim to establish the significance of personal accountability. The importance of not coming to work while showing signs of illness is the first item highlighted. Additionally, the employee's responsibility to eliminate cross contamination is explained with examples as well as scientific rationale. The subject of allergen control is reviewed in depth. Within the section devoted to 21 CFR 117.35, the significance of reporting any damage to prevent harborage points is established. Building upon this foundation, the requirement to clean both food contact and non-food contact surfaces is explained. 21 CFR 117.40 has a section that also builds upon the importance of cross contamination in regards to storage of equipment and its upkeep.

## DELIVERY OF PRESENTATION:

The presentation itself will require a class room setting. This can take place within a simple conference room or a team/department meeting room. As long as the employees have the ability to view the presentation, clearly hear and understand their presenter, and are given the necessary means to participate in the knowledge assessment, nothing further would be required in regards to the environment itself. If these circumstances prove difficult, the presentation could be delivered online through a teleconference service if needed. Regarding the presenter, there are no specific requirements. Any member of management within a facility would be qualified to give this presentation, as all concepts are explained in basic terms and do not require any advanced knowledge. No additional notes or guidance will be needed for the delivery, they only will have to read the slides in order to present. An estimated time for the entire presentation and knowledge assessment would be two hours or less.

## ANTICIPATED LIMITATIONS:

There are several considerations that must be taken into account in regards to this proposed training program. First and foremost, the biggest limiting factor is how much time and effort the company itself is willing to invest. While the program can be delivered in one session, this is time that is taking employees off the floor and ultimately impacting the finances of the company. When this is factored in, this may result in a more rushed presentation due to time constraints which therefore would affect the learning of the employees. Another factor to consider is the ability of the employees to learn and retain information. Depending upon hiring standards of the host company, there could be an extremely variable educational background among the employees in the training session: there could be a requirement of High School diploma, G.E.D, or none at all. Given this variability, the ability of the employees to understand basic science concepts could be an issue. According to the US Census, from 2000 to 2017, the percentage of US population over 25 years of age without a high school diploma dropped from 16% to 10% (US Dept of Commerce, 2017). While this is a positive trend, this still leaves a sizable portion of the population that may not have a basic understanding of core science concepts and therefore limit their ability to interpret and use what they have learned. A final limitation which could have a very large impact would be a language barrier. The food industry has a diverse workforce. For example, according to a recent study, the meat packing segment may be made of up to 40% foreign born employees (Groves and Tareen, 2020). With this diversity comes the potential for a language barrier. Even with a translator, this would add numerous complications and potentially hinder the ability of the employees to learn and grasp concepts.

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