

Food Code Highlights

Summary:

A number of requirements proposed for adoption from the 2009 Food Code will be different from North Carolina's current food protection rules (15A NCAC 18A .2601-.2645). See Appendix 1 for the text of the proposed rule changes (15A NCAC 18A .2651-.2678).

The following is a synopsis of the impact of implementing the Food Code:

Training related impact:

- The definition of "potentially hazardous food" will change significantly, affecting the types of food that will be subject to regulation. The new definition will take into account the different properties of individual food items allowing more foods to be exempt from time/temperatures controls and less foods to be discarded without affecting public health.
- Each food establishment will be required to have a person in charge demonstrate food safety knowledge by being a certified food protection manager (passing an American National Standards Institute (ANSI)-accredited exam).
- Each food establishment will be required to develop and adhere to an Employee Health Policy.
- Food establishments will be required to refrain from handling exposed, ready-to-eat foods with bare hands.
- Food establishments that serve raw-marinated, or marinated and partially cooked fish must ensure destruction of naturally-occurring parasites prior to serving.
- Food establishments will be required to decrease the refrigerated cold-holding temperature for potentially hazardous foods from 45° to 41° Fahrenheit and date-mark opened, ready-to-eat food for a maximum shelf life up to 7 days.
- Retail food establishments that wish to package juice must treat the juice under a HACCP plan that reduces pathogenic bacteria by 99.999% or label the package as unpasteurized.
- Food establishments that wish to perform specialized food processes (specific high-risk practices) will be allowed to seek a variance from the rules. The use of reduced oxygen packaging will not require a variance if the criteria specified in the rules are utilized.
- Food establishments that wish to serve raw or undercooked foods of animal origin per customer order will be required to advise consumers of the increased risk of foodborne illness.
- Food establishments will be required to maintain a minimum water temperature of 110°F, as opposed to 130°F, in warewashing sinks while in use or use a detergent specially formulated for water temperatures below 110°F.

Chapter 1: Purpose and Definitions

▪ 1-201.10 (b)-Potentially Hazardous Food

Description: The definition of “potentially hazardous food” will change significantly, affecting the types of food that will be subject to regulation. The change is seen as beneficial to industry by allowing more foods to be exempt from time/temperatures controls.

Conclusion: No cost to industry; training costs for state/local government (see training costs)

Benefits: Unquantifiable cost savings for industry and local governments by allowing certain foods to be exempt from time/temperature requirements

Within North Carolina’s current food protection rules, 15A NCAC 18A .2601 (22) provides a very general definition for a “potentially hazardous food” or PHF. The definition is very restrictive in identifying those food items which may support the growth of microorganisms or the formation of toxins. As the current rule reads, any food item which falls outside of the pH or water activity (Aw) restrictions (pH>4.6 and/or Aw>0.85) must be handled using time and temperature control to minimize microorganism growth or toxin formation. Operators must monitor these food items closely for internal temperature and/or time being displayed or held for service to the customer. Potentially hazardous foods which fall outside of these required holding parameters must be discarded and cannot be served to customers. This is an ongoing expense for industry where food items are held hot, cold, or for display before being served to customers, and this narrow definition may cause operators to unnecessarily discard food which is actually safe to serve the consumer.

The definition for a PHF within the 2009 FDA Food Code (1-201.10 (b)) is very specific as it relates to Time and/or Temperature Control for Safety (or TCS). Under the Food Code definition, a TCS food item is not broadly categorized as any food item which has pH and water activity outside of the limits described in the current NC rule, but instead, TCS foods are divided into a hierarchy of both packaged and unpackaged foods, as well as pH and Aw levels. Additionally, the new definition takes into account the “hurdle” effect – the ability for several inhibitory factors to work together to control or eliminate pathogen growth, when they would otherwise be ineffective if used alone. For instance, a food product that may be considered potentially hazardous by the current definition due to its pH level could now be considered non-potentially hazardous if the water activity value is such that it creates a “hurdle” too large for pathogenic growth to take place when combined with the pH value. Thus, the new definition allows for more foods to be classified as “non-potentially hazardous” and therefore be exempt from time/temperature controls.

Food service establishments will also have a new option available for foods that meet the definition of potentially hazardous food: a product assessment. *Product Assessment Required*, or PA designation, allows individual food items which fall into the PHF category under the current NC rules to be evaluated, at the request and the expense of the food service operators, for the ability to support the growth of pathogenic organisms and toxin formation. This ability alone is a significant advantage for industry as it allows food service operators more latitude by which they can address the safety of certain foods.

The definition within the Food Code also specifies criteria for the handling of eggs, hermetically packaged and sealed foods, and special food preparation processes such as Reduced Oxygen Packaging (ROP). Addressing these additional food-handling categories in the definition will also allow food service operators to store and display these items outside of the strict time/temperature control which is required under the current NC rules. Additional cost savings will result from fewer foods being discarded as well as realized savings from equipment operation of both hot and cold holding of foods. This new definition is a benefit to industry with respect to both costs and operations. The Division does not have enough information to be able to estimate this benefit.

Chapter 2: Management and Personnel

▪ 2-102.11: *Demonstration of Knowledge*

Description: Each food establishment will be required to demonstrate knowledge of food protection by passing an American National Standards Institute (ANSI)-accredited exam.

Benefits: Unquantifiable benefits result from increased compliance with proper food safety practices that result in the prevention of foodborne illnesses.

The Food Code requires the person in charge (i.e., the owner, operator, or manager at the time of inspection) to demonstrate knowledge of foodborne disease prevention, Hazard Analysis Critical Control Point (HACCP) principles, and the requirements of the Code. The rule language proposed by the FPP will require knowledge to be demonstrated by being a certified food protection manager who has shown proficiency of the required information through passing a test that is part of an accredited program. If knowledge cannot be demonstrated during the inspection, a violation is noted and points are deducted from the establishment's final environmental health score.

This requirement differs from the criteria within the current rules. Rule 15A NCAC 18A .2606(b) allows a two-point *credit* on the establishment's environmental health score if a manager or other employee responsible for operation of that establishment (and who is employed full time in that particular establishment) has successfully completed in the past three years a food service sanitation program approved by the Department. Therefore, demonstration of knowledge is not required; it is *voluntary*. However, food service sanitation programs approved by the Department must meet strict requirements, such as 12 hour minimum classroom contact time with detailed subject matter criteria. Classes are typically offered via local health departments and/or local cooperative extension programs over the course of 4-6 different days. No on-line classes or other distance education allowances are made, often making it difficult for food service owners and operators to leave their businesses long enough to attend the classes. There is typically a registration fee per person (\$125 average), which covers the cost of educational materials and testing supplies provided for the class. The registrant must attend all sessions in order to complete the course.

Although a demonstration of knowledge will be required in the proposed rules (as opposed to voluntary) and a 2-point deduction will be taken from the environmental health score (as opposed to added), the ability to obtain food safety training will be markedly easier.

The requirement in the proposed rules allows knowledge to be demonstrated by simply passing an exam that is part of an ANSI-accredited program. A minimum number of classroom training hours will not be required. Online training will be allowed. Simply by passing an accredited exam, the establishment can demonstrate knowledge and meet the requirements and no points will be deducted from the establishment's final score. In this manner, both industry and consumers will benefit. Industry will have a variety of options available in which to gain food safety knowledge and consumers will benefit by increased proficiency in food safety knowledge being practiced within all complying food establishments.

Currently, there are three programs and associated exams that meet ANSI accreditation standards:

☐ ServSafe (National Restaurant Association)

☐ Thomson Prometric

☐ National Registry of Food Safety Professionals

Each of these programs offers food safety certification programs in a variety of ways, including classroom training and online training. The exams may also be purchased without participating in the training.

As mentioned above, the current rule 15A NCAC 18A .2606(b) allows a two-point credit on the establishment's environmental health score if a manager or other employee responsible for operation of that establishment (and who is employed full time in that particular establishment) has voluntarily completed a food service sanitation program approved by the Department in the past three years.

According to Inspections, Statistics, and Fees data, 21,908 out of 31,040 food service facilities (70.6%) eligible to receive the two-point bonus (including restaurants, food stands, private school cafeterias, educational food service, public school cafeterias, commissaries, institutional food service, and meat markets) have completed the food safety certification training and have received the two-point bonus. Therefore, only the remaining facilities that have **not** elected to receive the training would find the new Demonstration of Knowledge requirement to be a *new* cost.

The Food Code requires a person in charge during all hours of operation (except when food is not being prepared and served). Noncompliance with this proposed rule will only result in a two-point deduction from the establishment's Environmental Health score. Some establishments may choose not to comply with the Demonstration of Knowledge requirement and instead elect to accept the two-point deduction. There are obvious benefits that cannot be accurately calculated. Pilling et al. (2008) conducted a study that revealed food safety training increased employees' compliance with important food safety behaviors, including handwashing, use of thermometers, and proper handling of food and work surfaces. In another study, Kneller and Bierma (1990) found statistically significant improvements in total inspection scores.

Certification also reduced the number of critical violations. The FDA recently released results of a 10-year study of retail food risk factors which noted that the presence of a certified food protection manager on-site correlates with significantly higher compliance levels with food safety practices. Full-service restaurants with certified food protection managers had a 70% compliance rate with food safety practices, compared with a 58% compliance rate at restaurants without one. This would also result in decreased costs to local health departments who would not have as many follow-up visits to ensure critical violations have been corrected.

- **2-201.11 Responsibility of Permit Holder, Person in Charge, and Conditional Employees**

2-201.12 Exclusions and Restrictions

2-201.13 Removal, Adjustment, or Retention of Exclusions and Restrictions

Description: Each food establishment will be required to develop and adhere to an Employee Health Policy.

Benefits:

Chapter 2, subpart 201 of the 2009 Food Code requires permit holders to develop an Employee Health Policy that addresses employee health and diseases transmissible by food for the purpose of preventing foodborne illnesses. Within the Employee Health Policy, criteria must be specified that requires employees and conditional employees to report any diagnosis or exposure to norovirus, Hepatitis A virus, *Shigella* spp., Enterohemorrhagic or Shiga-toxin producing *Escherichia coli*, or *Salmonella* Typhi as well as certain symptoms, including vomiting, diarrhea, jaundice, sore throat with fever, and lesions containing pus on parts of the body that can come in contact with food. Based upon the exposure risk, the person in charge must either exclude the employee from the establishment or restrict the employee from working with food. The level of exclusion and restriction is based upon a tiered structure specified within the Code.

A study released by the Pew Charitable Trusts on March 3, 2010, estimates the costs of foodborne illnesses in the United States to be \$152 billion per year.

An Employee Health Policy protects the food service industry by establishing procedures that prevent the risk of foodborne illness outbreaks. It ensures that the manager/operator can recognize the symptoms of specific foodborne illnesses and takes appropriate measures to prevent ill employees from handling food by either restricting them to non-food tasks within the establishment or excluding them from the establishment altogether, based upon the severity of their illness. It also establishes criteria by which the employee can re-enter the workplace after the illness subsides.

According to the industry survey, 92% of respondents currently monitor employees for illnesses and 61% of respondents currently have a policy in place detailing specific actions to enact based upon symptoms. Data gathered from the Inspections, Statistics, and Fees program within the Environmental Health Section/DPH/NCDHHS estimates a minimum of 12,914 chain establishments within North Carolina that also have establishments in states where the Food Code is the food safety standard. This is significant because these chains have already developed an Employee Health Policy in order to meet the requirements within those states. The Employee Health Policy is part of the chain's standard operating procedures and can also be used to meet the requirement in North Carolina.

There is minimal cost to industry or state/local government associated with developing an Employee Health Policy or enacting the requirements contained within. The Food Code has detailed information on the criteria and the supporting public health reasons. Additionally, FDA has provided the Employee Health and Personal Hygiene Handbook (found at <http://www.fda.gov/Food/FoodSafety/RetailFoodProtection/IndustryandRegulatoryAssistanceandTrainingResources/ucm113827.htm>) that can be used by the food service industry to address employee health issues. The Handbook provides templates that can be used for guidance in developing an Employee Health Policy. Local health Departments, the FPP, and FDA consultants are also available to assist industry for no additional cost. Further, the Employee Health Policy can be written or oral.

▪ **3-301.11 Preventing Contamination from Hands**

Description: *Food establishments will be required to refrain from handling exposed, ready-to-eat foods with bare hands.*

North Carolina's current food safety rules (15A NCAC 18A .2600) requires all employees of food establishments to wash their hands thoroughly prior to working with food. Together with the Employee Health Policy requirement proposed within 2-201, the criteria within 3-301.11 *Preventing Contamination from Hands* will

In 3-301.11, the Food Code prohibits food employees from contacting exposed, ready-to-eat food with their bare hands, except when washing fruits and vegetables. Foodborne illnesses can be prevented by simply using alternate means, such as deli tissue, spatulas, tongs, single-use gloves, or dispensing equipment. The cost of gloves may be the sole cost associated with 3-301.11, although gloves are not required. Some establishments may wish to use gloves due to the nature of their business, as evidenced by many establishments already using gloves in their routine operations.

The FPP does not anticipate that the criteria within 3-301.11 will pose any fiscal impact on industry. According to the industry survey, 78% of respondents currently do not allow employees to use bare hand contact on exposed, ready-to-eat food items. For the remaining 22%, implements available within the establishment could easily meet the requirements (e.g. deli paper, sanitized utensils) for a small cost per establishment.