NATIONAL CHICKEN COUNCIL

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May 24, 2016

FSIS Docket Clerk,
Department of Agriculture
Food Safety and Inspection Service
Room 2534 South Building
1400 Independence Ave., SW
Washington, DC 20250-3700

Re: Petition to Establish Regulations for the Labeling and Validated Cooking Instructions for Not-Ready-to-Eat Stuffed Chicken Breast Products That Appear Ready-to-Eat

Dear Docket Clerk:

The National Chicken Council (NCC) respectfully submits this petition requesting that the Food Safety and Inspection Service (FSIS) adopt regulations establishing labeling requirements for not-ready-to-eat (NRTE) stuffed chicken breast products that may appear ready-to-eat (RTE) and to issue a Compliance Guideline for developing and communicating validated cooking instructions for such products. NCC increasingly is aware that some consumers may be uncertain of the proper handling and cooking methods for NRTE stuffed chicken breast products that may appear RTE, and the proposed measures are necessary to ensure proper handling and cooking of these products. As evidenced in FSIS's recent rule requiring labeling of mechanically tenderized beef products, FSIS takes the view that adding to labels warning statements and validated cooking instructions is the appropriate way to address products when the Agency believes that consumers may need additional information to ensure they are consuming the product safely. Our request is consistent with—and indeed extends beyond—FSIS's policy toward labeling of mechanically tenderized beef.

NCC has long advocated for additional labeling to address consumer confusion related to these products and has worked with its members to develop guidelines for such labels. This labeling would clearly inform consumers that these products are raw and require proper cooking while providing specific and uniform instructions on how to cook the products. Drawing upon our members' insights and consumer perception testing, we have drafted proposed regulations establishing the language and prominence requirements that have been shown to be effective in increasing consumer perception and understanding of warning statements. NCC is confident that these proposed labeling regulations would make certain that consumers are appropriately informed that NRTE stuffed chicken breast products that may appear RTE are raw and must be handled properly and cooked for safety. An FSIS Compliance Guideline on validating cooking instructions for these products also will ensure that these products are safe to consume when cooked in accordance with the instructions provided and that cooking instructions can be easily replicated by consumers.

I. Requested Actions

NCC requests that the Agency take the following actions:

1. Conduct a rulemaking to adopt a regulation requiring that NRTE stuffed chicken breast products that appear RTE be labeled to clearly inform consumers that the products are raw and how to properly handle and cook them, as proposed below; and

2. Publish a Compliance Guideline explaining how to validate cooking instructions for NRTE stuffed chicken breast products that appear RTE, which incorporates NCC's "Best Practices for Cooking Instruction Validation for Frozen NRTE Stuffed Chicken Breast Products." (Attachment 1 – NCC Best Practices.)

The requested regulations and Compliance Guideline would work in tandem. The regulations would require that the products bear validated cooking instructions and establish required uniform label statements necessary to inform consumers that the products are raw and must be prepared according to the cooking instructions provided to ensure food safety. The Compliance Guideline would assist industry in validating cooking instructions to comply with the regulation and identify any additional statements that should accompany the validated cooking instructions to reinforce for consumers that they must cook the product in an oven, not a microwave, to prevent foodborne illness.

Specifically, we request that FSIS amend Part 381 of Title 9 of the Code of Federal Regulations to add a new subsection (c) to Section 381.125, to read as follows:

> **(c)(1)** ***Definition.*** For purposes of this section, the term "not-ready-to-eat (NRTE) stuffed chicken breast product that appears ready-to-eat (RTE)" means a non-homogenous product that contains raw, comminuted chicken breast meat, which has been heat-treated only to set the batter or breading but has not received a full lethality treatment; which has an RTE appearance such as a set or hardened breaded crust or grill marks; and which has an inner cavity filled with ingredients, including, but not limited to, raw vegetables, butter, cheese, or meat. NRTE stuffed chicken breast products that appear RTE do not include the following products, among others: par-fried products such as chicken nuggets or chicken tenders unless they have been stuffed; or stuffed products such as whole stuffed chickens, or chicken thighs stuffed with stuffing and almonds, which do not appear RTE.
>
> **(2)** ***Product Name.*** Unless the product is destined to be fully cooked or to receive a full lethality treatment at an official establishment or at a foreign establishment certified by a foreign government found equivalent under Section 196 of this Part, the product name for a NRTE stuffed chicken breast product that appears RTE must contain:

(i) the term “raw” as a descriptive designation; and
(ii) an accurate description of the poultry component (e.g., “Raw Stuffed Chicken Breast” or “Raw Chicken with Broccoli and Cheese”).

(3) *Required labeling to signal product is raw*. The principal display panel of NRTE stuffed chicken breast product that appears RTE and is destined for household consumers (not for hotels, restaurants, or similar institutions) must bear:

(i) the following safety statement:

“RAW PRODUCT. For food safety, cook to a minimum internal temperature of 165˚ F measured by a meat thermometer.”

(A) such that the word “RAW” may be used in lieu of the term “RAW PRODUCT”;
(B) with the words “RAW” or “RAW PRODUCT” capitalized and in a minimum type height of ¼ inch; and
(C) with the statement “For food safety, cook to a minimum internal temperature of 165˚ F measured by a meat thermometer” capitalized or in a combination of upper and lowercase letters, with the letter height of the capitalized letters at least ½ the height of the words “RAW” or “RAW PRODUCT”;

(ii) a “raw chicken” icon, which must be prominent, conspicuous, and legible; contain the statement “RAW CHICKEN” in all capital letters; and include:

(A) the statement “Do Not Microwave” above an illustration of a microwave enclosed in a circle with a line across it; and
(B) the statement “Oven Bake Only”, which should appear written across the door of an illustration of an oven; and

(iii) a serving suggestion notice explaining that the label illustrates the suggested serving of the product after baking, if the label contains an illustration of the cooked product (e.g., “serving suggestion after baking” or “serving suggestion: photo shows product after oven baking”).

(4) *Validated cooking instructions*. The labels on NRTE stuffed chicken breast products that appear RTE destined for household consumers must contain validated cooking instructions. The validated cooking instructions may appear anywhere on the label and must contain all information necessary to instruct consumers how to cook the product safely. Such information shall include, at a minimum:

(i) the proper cooking method;
(ii) the endpoint temperature;
(iii) instructions to measure the internal temperature using a meat thermometer;
(iv) the “Do Not Microwave” icon;
(v) the “Oven Bake Only” icon;

(vi) the statement “Raw - Do Not Microwave” in at least 3/16” font followed by the explanation “to help prevent foodborne illness caused by eating raw poultry” in at least 1/16” font; and

(vii) any additional statements or illustrations, as appropriate, to inform the consumer that the product is raw and must be cooked in an oven to ensure product safety.

II. Support for Requested Actions

We are becoming increasingly aware that some consumers may not know how to properly recognize and prepare NRTE stuffed chicken breast products that may appear RTE. NCC’s proposed regulations and corresponding Compliance Guideline would draw consumers’ attention to the fact that these products are raw and must be handled accordingly while ensuring that cooking instructions are properly validated to achieve lethality for food safety.

A. Need for Increased Consumer Awareness Regarding NRTE Foods that Appear RTE

NCC member companies strive to produce safe, wholesome products for their consumers to enjoy. As with any raw product, though, consumers are the last line of defense in food safety. No matter how safe a product is, improper handling or cooking may nevertheless render the product unsafe for consumption. Ensuring consumer understanding of proper handling and preparation methods therefore is a vital component of preventing foodborne illness. In the ongoing endeavor to maintain consumer awareness of food safety procedures, NRTE stuffed chicken breast products that may appear RTE present a unique challenge.

NCC understands that some consumers currently may be uncertain of the correct handling and cooking methods for NRTE stuffed chicken breast products that may appear RTE, and further efforts are necessary to ensure that all consumers appreciate the raw nature of these products and the need to cook them for food safety. NCC understands that the labeling, cooked appearance, and often frozen state of these products can sometimes be confusing to consumers, who may believe that the products are fully cooked. As a result, some consumers may only reheat the product for aesthetics or palatability instead of cooking the product to the internal temperature needed to destroy pathogenic bacteria, even when the cooking instructions tell them to do so.

FSIS also is aware of this issue and, following recalls associated with similar products, has advised manufacturers of NRTE breaded chicken breast products that may appear RTE of the need to emphasize to consumers that these products are not cooked.

Thus, there is consensus that clear and uniform labeling is required to ensure consumers understand the proper handling and cooking procedures for NRTE breaded chicken breast products that may appear RTE.

B. Label Warnings, Statements, and Validated Cooking Instructions to Inform Consumers and Ensure Product Safety

NCC believes that mandatory labeling and the use of validated cooking instructions are the best options for equipping consumers to handle and prepare these products safely. In a report to FSIS, the National Advisory Committee on Microbiological Criteria for Foods (NACMCF) similarly recommended that products that contain uncooked poultry but appear cooked should explicitly state on the label that the product contains raw poultry and must be cooked thoroughly.[1] The National Advisory Committee on Meat and Poultry Inspection (NACMPI) also recently concluded that there should be mandatory label statements for NRTE products that appear RTE and that FSIS should require these products to bear validated cooking instructions.[2] NACMPI also suggested that a standard of identity for these products may be appropriate.

A federal regulation defining this category of products and prescribing appropriate and uniform warning statements will ensure that label statements are consistent, so as to avoid further consumer confusion, and effective at alerting consumers to the raw nature of these products. In addition, a mandate that these products bear validated cooking instructions will ensure that the preparation instructions provided on the label can achieve the necessary level of lethality in a manner that can be replicated by consumers.

III. Explanation of Proposed Regulations and Compliance Guideline

NCC proposes to amend FSIS's existing regulation for special handling labeling requirements at 9 C.F.R. § 381.125 to include labeling requirements for NRTE stuffed chicken breast products that may appear RTE. Below we describe the components of the proposed regulation and explain how each provision will increase consumer awareness and improve product safety. We also discuss how NCC's proposed Compliance Guideline will elaborate upon the regulation while allowing for the flexibility needed for this type of product category.

A. Definition of NRTE Stuffed Chicken Breast Product That Appears RTE

As noted above, the challenge of consumer awareness is limited to a narrow category of products—NRTE stuffed chicken breast products that may appear RTE. It therefore is necessary

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[1] NACMCF also recommended that such statements related to safety information should appear on the principal display panel. NACMCF, *Response to the Questions Posed by the Food Safety and Inspection Service Regarding Consumer Guidelines for the Safe Cooking of Poultry Products* (Mar. 2006), available at http://www.fsis.usda.gov/shared/PDF/NACMCF_Report_Safe_Cooking_Poultry_032406.pdf?redirecthttp=true.

[2] NACMPI, *Subcommittee #2 Consideration of Mandatory Labeling Features for Certain Processed Not Ready to Eat Meat and Poultry Products* (Apr. 2016) (hereinafter "NACMPI Report"), available at http://www.fsis.usda.gov/wps/wcm/connect/076f154b-6744-41ef-bc27-7282bee0dfce/NRTE-Labeling.pdf?MOD=AJPERES.

to define this term carefully to ensure that it covers all products for which additional warning statements and validated cooking instructions are needed to address consumer confusion, but does not capture products for which this unique safety issue does not exist.

NCC's proposed definition of "NRTE stuffed chicken breast products that appear RTE" is based upon FSIS's description of these products in Notice 15-16.[3] This category of products contains raw, comminuted chicken breast meat, which has been heat-treated only to set the batter or breading, which has an RTE appearance, and which is stuffed with ingredients such as raw vegetables, butter, cheese, meat, or other fillings. The proposed definition is limited exclusively to retail products because we understand that the awareness issues related to these products do not extend to hotels, restaurants, and institutional users, who recognize these products as being raw and are able to handle them properly.

The term "stuffed chicken breast product" means a product consisting of comminuted chicken breast with an inner cavity that has been filled with additional ingredients, thereby creating two, non-homogenous layers with different densities. The different densities affect thermal transfer, which may contribute to consumer challenges in understanding how to cook these products. It does not refer to homogenous blends or mixtures of comminuted chicken breast and other ingredients. Thus, a comminuted chicken breast product that contains an inner pocket filled with broccoli and cheese would fall under the proposed definition, whereas a mixture of comminuted chicken breast, broccoli, and cheese would not. A product "appears RTE" if it has not undergone a validated lethality step, but has been battered or breaded and then par-fried to set the crust; contains grill marks; or has been colored to create the appearance that the product has been cooked.

NCC agrees with FSIS that this category of products includes items such as breaded, pre-browned chicken cordon bleu, chicken Kiev, and chicken stuffed with broccoli and cheese. NCC also agrees with FSIS's determination that this category does not include par-fried products such as chicken nuggets or chicken tenders unless they have been stuffed or other types of stuffed products such as turducken, whole stuffed chickens, or chicken thighs stuffed with stuffing and almonds, which do not appear RTE. More generally, the term does not refer to stuffed whole muscle cuts.

B. Required Product Name, Warnings, and Statements

The proposed regulations mandating label warning statements for NRTE breaded chicken breast products that appear RTE will increase consumer awareness by providing clear statements conveying that the product is raw and must be cooked and by ensuring that this information is sufficiently prominent for consumers to read it. NCC research confirms that use of the proposed label statements, along with the prescribed prominence requirements, will increase consumer

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[3] FSIS Notice 15-16, Profile Update in Establishments that Produce Not-Read-to-Eat Stuffed Chicken Breast Products that Appear Ready-to-Eat (Feb. 18, 2016).

understanding that these products are raw. (Attachment 2 – NCC Consumer Perception Research.) NCC's proposal also is consistent with the principles FSIS has identified for effective product warnings, and in many aspects goes beyond the measures FSIS has recommended.[4]

The proposed regulations would require labels for these products to bear the statement "RAW PRODUCT. For food safety, cook to a minimum internal temperature of 165˚ F measured by a meat thermometer." This proposed statement includes the three elements FSIS has identified as necessary to communicate effectively the proper handling and cooking procedures for these products: (1) the term "RAW PRODUCT" (or "RAW"), which reflects that the product is NRTE; (2) the specific endpoint internal temperature of 165˚ F; and (3) a direction to measure the endpoint temperature using a meat thermometer.[5] This statement, which must appear in all capital letters at least ¼ inch in height on the principal display panel (PDP), will help consumers understand that it is important for them to follow the cooking instructions provided.

The proposed regulations also would require several other components to appear on the PDP, which NCC research has found will reinforce the raw state of these products. First, the word "raw" would be required to be included as a descriptive designation in the product name. Second, a "raw chicken" icon would be required to appear on the label with corresponding "do not microwave" and "oven bake only" illustrations. Repeating the word "raw" on the label, as these requirements would achieve, is important because NCC's research concluded that multiple placements of the word "raw" nearly doubles the percentage of individuals who notice the term. The oven symbol also reinforces the raw state of the product and how it should be cooked. Third, the PDP must include a serving suggestion notice explaining that the label illustrates the suggested serving of the product after baking if the label contains an illustration of the cooked product. This statement will prevent consumers from assuming based on the illustration of the cooked product on the label that the product is RTE.

In addition, the regulations would prescribe the warnings and statements that must be included as part of the validated cooking instructions. These required warnings and statements—a statement that the product is raw, the minimum internal temperature, instructions to measure the temperature using a thermometer, a warning not to microwave the product to help prevent foodborne illness, and the "do not microwave" and "oven bake only" illustrations—are the same or similar to those required to appear on the PDP. This repetition of key words and statements will help reinforce the key messages that the product is raw and must be cooked for food safety.

Requiring that these warnings statements accompany validated cooking instructions would be

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[4] *E.g.*, FSIS, *Labeling Policy Guidance: Uncooked, Breaded Boneless Poultry Products* (Jan. 2007), available at http://www.fsis.usda.gov/wps/wcm/connect/6d7b7f70-e11b-4861-adc8-6f3269c3eeec/Labeling_Policy_Guidance_Uncooked_Breaded_Boneless_Poultry_Products.pdf?MOD=AJPERES.

[5] *See id.*

consistent with NACMPI's recommendations, which suggested that validated cooking instructions should include a disclaimer not to use a microwave and should make clear which steps should be followed for safety.[6] NCC also envisions that FSIS, through its Compliance Guideline on validating cooking instructions, or an establishment based on its experience, may identify additional warnings or statements that would be appropriate to include in the validated cooking instructions. NCC accounted for these additional statements by requiring that the instructions include "any additional statements or illustrations, as appropriate, to inform the consumer that the product is raw and must be cooked in an oven to ensure product safety."

NCC research demonstrates that the proposed label regulations would be successful in increasing consumer awareness that these products contain raw poultry and must be cooked for safety. It is necessary for FSIS to adopt these proposals via mandatory regulation, both to ensure that products bear consistent and uniform language and display methods that have been proven effective and to avoid inconsistent messaging that may cause further consumer confusion.

C. Validated Cooking Instructions and Corresponding Compliance Guideline

NCC agrees with FSIS that the cooking instructions for NRTE stuffed chicken breast products that appear RTE must be validated, and the proposed regulations include a requirement that the products bear validated cooking instructions. This requirement will ensure that labeled cooking instructions will achieve lethality.

To accompany the regulation, we request FSIS issue a Compliance Guideline instructing industry on how to validate cooking instructions for NRTE stuffed chicken breast products that may appear RTE, consistent with the regulation. A corresponding Compliance Guideline would be appropriate because it would provide establishments with firm, clear guidance to follow to ensure cooking instructions are accurate and consumers can replicate them effectively. Based on the Agency's approach toward cooking instructions in other contexts, NCC proposes that FSIS include in the regulations a general requirement to provide validated cooking instructions while also maintaining more detailed recommendations for validation through a Compliance Guideline. This method has been effective in analogous situations that warranted providing flexible general parameters for validation that could be adapted to specific products,[7] and NCC believes it would be appropriate in this instance as well.

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[6] *See* NACMPI Report, *supra* note 2.

[7] For example, FSIS requires that mechanically tenderized beef bear validated cooking instructions, 9 C.F.R. 317.2(e)(3), and the Agency issued a separate Compliance Guideline for the validation of the instructions. FSIS, *Compliance Guideline for Validating Cooking Instructions for Mechanically Tenderized Beef Products* (2015). Similarly, FSIS requires inspected establishments to prepare validated Hazard Analysis and Critical Control Points (HACCP) plans, 9 C.F.R. 417.2, 417.4, and maintains a Compliance Guideline to assist establishments in validating their HACCP plans in compliance with the regulation. FSIS, *Compliance Guideline HACCP Systems Validation* (April 2015).

FSIS's Compliance Guideline should incorporate NCC's *Best Practices for Cooking Instruction Validation for Frozen NRTE Stuffed Chicken Products* ("Best Practices"), which are consistent with and expand upon FSIS's recommendations for validation.[8] NCC agrees with FSIS that microwave cooking may result in inconsistencies and, as described above, supports label statements that discourage consumers from microwaving these products.[9] Because NCC discourages microwave preparation, our Best Practices are limited to validating cooking instructions for oven preparation, and are further limited to gas and electric-style ovens for retail portions. Like FSIS's recommendations, the Best Practices also state that validated cooking instructions must result in all product sizes and varieties reaching an internal temperature of 165˚ F and must be consistent with consumer use.

NCC's Best Practices include a number of other suggestions beyond FSIS's recommendations that will improve the specificity of cooking instructions and increase the ease in which consumers can replicate the preparation methods. In particular, the Best Practices advise that cooking instructions for each product should include guidance for the appropriate metal cooking utensil to support consistent cooking results, appropriate product spacing to support even heating of the product, and the standard placement of the product in the oven, all of which should be validated accordingly. To maximize the efficacy and repeatability of the validation process, NCC also recommends that product and testing ovens be prepared for cooking and validation in a manner that is consistent with consumer use.

NCC's request that FSIS issue a Compliance Guideline incorporating NCC's Best Practices for cooking instruction validation goes hand-in-hand with our proposed label regulations for NRTE stuffed chicken breast products that appear RTE. Industry must alert consumers to the raw state of these products and instruct consumers on the proper method for preparing the products to achieve lethality. An FSIS Compliance Guideline adopting NCC's Best Practices will not only ensure that the cooking instructions provided achieve the necessary level of lethality, but also that they are understandable and easily replicable by consumers.

Conclusion

For these reasons, NCC believes it is necessary that the Agency adopt these proposed regulations to require that the labels of NRTE stuffed chicken breast products that may appear RTE adequately indicate to consumers that these products are raw and must be prepared according to the validated cooking instructions provided to ensure the product safety. A corresponding FSIS Compliance Guideline incorporating NCC's Best Practices for validating cooking instructions also will provide industry with the guidance needed to ensure its instructions are effective and consistent with typical consumer use. If adopted, NCC's proposals will reinforce the safety of

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[8] FSIS, *Information on Validation of Labeled Cooking Instructions for Products Containing Raw or Partially Cooked Poultry*, available at http://1.usa.gov/23JFeIe.
[9] NCC would encourage FSIS to revisit this issue should a new cooking technology become available that allows consumers to safely cook these products using an appliance other than an oven.

these popular consumer products.

Thank you for your consideration of this petition. Please do not hesitate to contact me if I can provide any additional information.

Respectfully submitted,

Michael J. Brown
President

cc: Mr. Alfred Almanza, Deputy Under Secretary for Food Safety
Daniel L. Engeljohn, PhD, Assistant Administrator, Office of Policy and Program Development
Rosalyn Murphy-Jenkins, Director, Labeling and Program Delivery Division

Attachments

Attachment 1 – NCC Best Practices
Attachment 2 – NCC Consumer Perception Research

NATIONAL CHICKEN COUNCIL

Best Practices for Cooking Instruction Validation For Frozen NRTE Stuffed Chicken Products

Introduction:

An industry group was formed to identify and develop a document of recommended Best Practices for the validation of cooking instructions and labeling for products that are classified as “frozen not-ready-to-eat (NRTE) stuffed poultry that appears ready-to-eat (RTE)”.

This Best Practices document is meant to serve as a set of voluntary guidelines which may be used by industry to develop company-specific cooking validation programs. These guidelines were developed to include procedures that companies can consider adopting to ensure product safety and quality. The following recommended Best Practices apply exclusively to frozen NRTE stuffed chicken products.

Cooking Validation Protocols:

Manufacturers of frozen NRTE stuffed chicken products design a variety of entrees to appeal to the varying tastes of their consumers, and, as a result, there may be differences in how to properly cook these products. The manufacturers of these products believe that it is in the best interest of the industry to develop some general parameters for developing cooking validation protocols for each product to ensure high food safety and quality.

The following voluntary guidelines are intended to be used to develop thorough cooking validation measures exclusively for frozen NRTE stuffed chicken products.

General Parameters:

1. Cooking instructions should be developed for each size and variety of stuffed entree product. Each variety and size should be validated in portion sets consistent with or greater than package labeling for the tested product (e.g. 2, 4, 6, etc… portions).

2. Cooking validations should be done with sufficient replication to account for variability of cooking and to ensure consistency of product temperature and quality.

3. Retail portions should be cooked in a retail gas or electric style oven, as these appliances will be used by the consumers.

4. Each portion must reach an internal temperature of 165° F at each point measured on the product to be considered effectively cooked.

    a. Product mapping should be carried out to identify the location(s) of the lowest product temperature after being cooked (e.g. top center, middle center, or bottom center).

5. During the validation procedure, the average operating temperature of the oven used should be at or below target temperature indicated on cooking instructions for the replica set to allow for the safest development of cooking instructions for the consumer.

6. Cooking instructions for each product should include, but is not limited to, guidance for:

    a. The appropriate metal cooking utensil (e.g. metal baking pan, tray, or sheet) for the given product to support consistent cooking results. The cooking utensil used should be the specified utensil on the packaging instructions for the product, and should be validated accordingly.

    b. The appropriate product spacing on the specified cooking utensil to support even heating of the product. Information on spacing must be on the packaging instructions for the product and that spacing should be validated accordingly.

    c. The standard placement of the product in the oven is on the center rack. Products should be validated following this standard.

Equipment / Utensils:

The use of the following cooking equipment and utensils is recommended for optimal product cooking validation and consistency:

1. Two thermometers: one thermometer will measure the internal temperature of the testing oven, and one will measure predetermined points on each product portion. These should be calibrated on the same day as the cooking validation testing.

2. Data loggers, if used, can track temperature measurements taken throughout cooking validation testing. These should be calibrated and certified based on National Institute of Standards and Technology (NIST) standards within one year of testing.

3. Scales for weighing each product portion. These should be calibrated on the same day as cooking validation testing.

4. The metal cooking utensil (e.g. metal baking pan, tray, or sheet) recommended on the package cooking instructions for each product should be used during the validation process to ensure optimal product cooking consistency and completeness.

Oven Preparation:

Testing ovens should be prepared for cooking validation in a manner that is consistent with consumer use and which will maximize the efficacy and repeatability of the validation process:

1. Personnel should ensure that the rack intended to be used for cooking validation is positioned in the middle of the testing oven. The center rack of the oven has been determined to be the easiest location for the consumer to use while providing the maximum available heat distribution for the product.

2. The testing oven should be pre-heated to the set point specified by the product cooking instructions, which will be based on the size, quantity, and variety of product to be tested.

3. The testing oven should be pre-heated using a calibrated thermometer or using a data logger to observe that the oven has reached the specific set point indicated in the package cooking instructions prior to cooking validation.

Product Preparation:

It is important to prepare the product in a way that will be consistent with consumer use and which will maximize the efficacy and repeatability of the cooking validation process. The following guidelines are suggested to ensure accurate cooking validation results:

1. Each product portion must be ≤ 5° F prior to cooking to ensure consistency of cooking validation results and testing parameters. This should be verified prior to cooking validation testing by measuring the temperature of each product portion OR confirming a documented correlation of product portion temperature to the freezer storage temperature.

2. Product must be verified to be within design specifications at the production plant. If a company determines a product to be out of design specification in the production plant, the company will take appropriate steps to apply alternative validated cooking instructions to the product that is out of design specification.

3. Each portion should be placed on a metal cooking utensil (e.g. metal baking pan, tray, or sheet) with predetermined spacing provided between each portion consistent with packaging instructions for the product.

4. The product portions should be placed in the preheated oven as soon as possible after the product has been removed from the freezer and the metrics have been documented to prevent tempering during the preparation process.

Product Cooking:

It is important that product cooking during testing reflects the instructions that are supplied to the consumer for use. The following are general Best Practices for cooking NRTE products:

1. The minimum required cooking time and temperature should be determined for each labeled portion size.

2. The product portions should be placed on the center rack in the middle of the oven to allow for adequate and even heating of each product portion. This is the location that is recommended to consumers when cooking frozen NRTE stuffed chicken products.

3. The product portions will be appropriately spaced on the metal cooking utensil in accordance with the cooking instructions provided with the NRTE product.

Oven Monitoring:

The internal temperatures of retail gas and electric ovens may fluctuate during a typical cooking test, and this can impact the consistency of cooking validation results and the quality of the product that the customer obtains when following cooking instructions provided with a given product. It is, therefore, important to recognize and account for this variation by following the basic suggestions below:

1. The internal temperatures of the testing oven should be monitored and recorded during the cooking cycle utilizing a calibrated thermometer and/or a calibrated data logger at the following suggested time points:

a. At the start of each cooking cycle after the product is loaded and timer is started

b. At least every 5 minutes during the cooking cycle

c. At the end of the cooking cycle, immediately before removing product

2. Once preheated, data points from the oven should be assessed and compared to set temperature points to determine:

    a. Minimum oven operating temperature

    b. Maximum oven operating temperature

    c. Average oven operating temperature

3. Across the chosen number of replication sets per cooking validation, the average set point of the oven must not exceed the set point temperature in the package cooking instructions.

Product Validation:

Validation of the recommended cooking process is an important step to ensure food quality and safety, and also ensure that the instructions supplied with the product will provide a consistently positive result. Steps to validate the efficacy of the cooking process must include, but are not limited to, the following:

1. The product portion should be temperature mapped to identify the coldest temperature point on the product.

2. The internal temperature of each product portion should be measured as soon as possible after removing the products from the testing oven.

3. The temperature of each product portion should be measured at the coldest spot(s) of each portion, as determined by product temperature mapping, to ensure that the portion temperature is greater than or equal to 165° F.

4. The internal minimum, maximum, and average temperatures of the oven should be measured and recorded for each cooking validation replicate.

NCC Packaging Consumer Comprehension of NRTE Stuffed Breasts

Objectives:

- Consumer Safety
- Comprehension of “raw” product state
- Proper handling and cooking

Background:

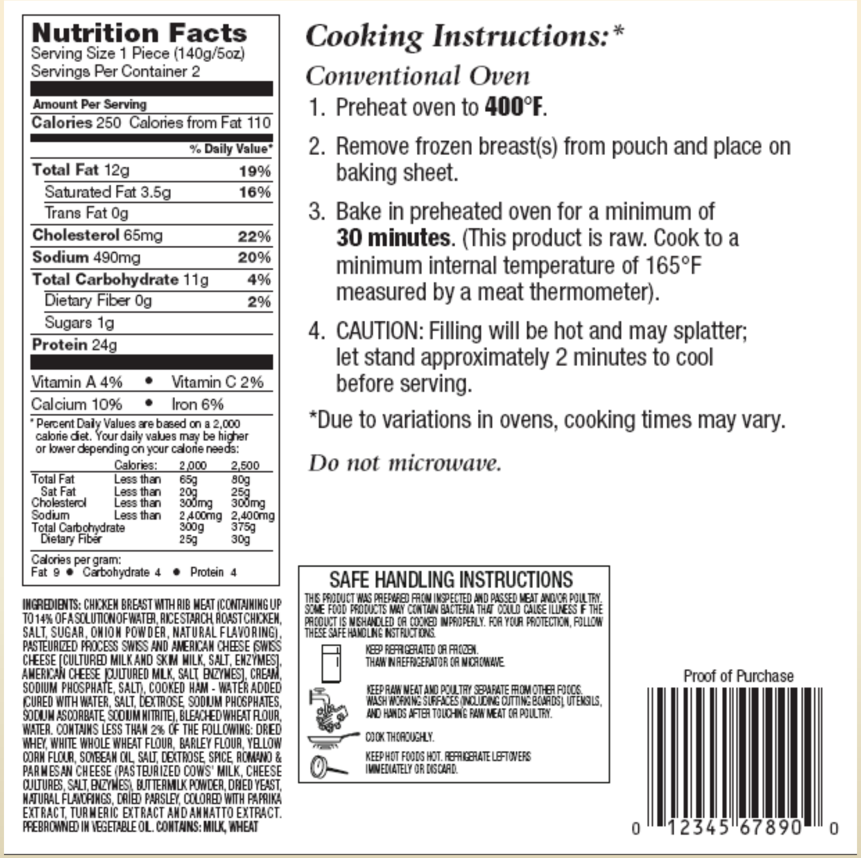
- December 2008 present recommended standard to USDA
- May 2009 present next round continuous improvements

Research of Consumer Comprehension of NRTE Stuffed Breasts Product State and Proper Handling/Cooking

On-line Omnibus 1,000 interviews

- 50% of sample viewed “generic old copy” March 2008 packaging
- 50% of sample viewed “generic new” proposed standard

Appendix: Product Tested – Old Copy



Nutrition Facts
Serving Size 1 Piece (140g/5oz)
Servings Per Container 2

Amount Per Serving	% Daily Value*
Calories 250 Calories from Fat 110	
Total Fat 12g	19%
Saturated Fat 3.5g	16%
Trans Fat 0g	
Cholesterol 65mg	22%
Sodium 490mg	20%
Total Carbohydrate 11g	4%
Dietary Fiber 0g	2%
Sugars 1g	
Protein 24g	

Vitamin A 4% • Vitamin C 2%
Calcium 10% • Iron 6%

* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

Calories per gram:
Fat 9 • Carbohydrate 4 • Protein 4

INGREDIENTS: CHICKEN BREAST WITH RIB MEAT (CONTAINING UP TO 14% OF A SOLUTION OF WATER, RICE STARCH, ROAST CHICKEN, SALT, SUGAR, ONION POWDER, NATURAL FLAVORING), PASTEURIZED PROCESS SWISS AND AMERICAN CHEESE (SWISS CHEESE [CULTURED MILK AND SKIM MILK, SALT, ENZYMES], AMERICAN CHEESE [CULTURED MILK, SALT, ENZYMES], CREAM, SODIUM PHOSPHATE, SALT), COOKED HAM - WATER ADDED (CURED WITH WATER, SALT, DEXTROSE, SODIUM PHOSPHATES, SODIUM ASCORBATE, SODIUM NITRITE), BLEACHED WHEAT FLOUR, WATER. CONTAINS LESS THAN 2% OF THE FOLLOWING: DRIED WHEY, WHITE WHOLE WHEAT FLOUR, BARLEY FLOUR, YELLOW CORN FLOUR, SOYBEAN OIL, SALT, DEXTROSE, SPICE, ROMANO & PARMESAN CHEESE (PASTEURIZED COWS' MILK, CHEESE CULTURES, SALT, ENZYMES), BUTTERMILK POWDER, DRIED YEAST, NATURAL FLAVORINGS, DRIED PARSLEY, COLORED WITH PAPRIKA EXTRACT, TURMERIC EXTRACT AND ANNATTO EXTRACT. PREBROWNED IN VEGETABLE OIL. CONTAINS: MILK, WHEAT

*Cooking Instructions:**

Conventional Oven

1. Preheat oven to **400°F**.
2. Remove frozen breast(s) from pouch and place on baking sheet.
3. Bake in preheated oven for a minimum of **30 minutes**. (This product is raw. Cook to a minimum internal temperature of 165°F measured by a meat thermometer).
4. CAUTION: Filling will be hot and may splatter; let stand approximately 2 minutes to cool before serving.

*Due to variations in ovens, cooking times may vary.

Do not microwave.

SAFE HANDLING INSTRUCTIONS

THIS PRODUCT WAS PREPARED FROM INSPECTED AND PASSED MEAT AND/OR POULTRY. SOME FOOD PRODUCTS MAY CONTAIN BACTERIA THAT COULD CAUSE ILLNESS IF THE PRODUCT IS MISHANDLED OR COOKED IMPROPERLY. FOR YOUR PROTECTION, FOLLOW THESE SAFE HANDLING INSTRUCTIONS.

KEEP REFRIGERATED OR FROZEN. THAW IN REFRIGERATOR OR MICROWAVE.

KEEP RAW MEAT AND POULTRY SEPARATE FROM OTHER FOODS. WASH WORKING SURFACES (INCLUDING CUTTING BOARDS), UTENSILS, AND HANDS AFTER TOUCHING RAW MEAT OR POULTRY.

COOK THOROUGHLY.

KEEP HOT FOODS HOT. REFRIGERATE LEFTOVERS IMMEDIATELY OR DISCARD.

Proof of Purchase

0 12345 67890 0

Appendix: Product Tested – New Copy

Package research Executive Summary

The new package communicates the raw product state significantly better

- Recall of the word "raw" nearly doubles (42% w/ old pack to 82% w/ new pack)
- Understanding of the raw product state increases from 55% to 76% overall
  - Among females who indicate they are the primary meal preparer, it goes from 54% to 82%

The oven symbol does a good job in reinforcing the raw state of the product and how it should be cooked

In both the new and old versions the vast majority of consumers plan to cook the product in the oven (75% for old copy vs. 79% for new copy)

- Open end playback of packaging likes are consistent with the other findings – more mention raw and must be cooked in oven/not microwavable with the new package

Recall of a meat thermometer increases significantly overall (from 53% to 70%)

  - The open ends suggest meat thermometer communicates that the product must reach a certain temperature/be cooked well or thoroughly – but not necessarily that the product is raw

Product State – Did you notice the word "Raw?"

- Multiple placements of the word "raw" nearly double the percentage of consumers who notice the word
- The percentage is higher among females compared to males

	TOTAL		TOTAL FEMALES		TOTAL MALES		TOTAL FEMALES + INVOLVED IN PURCHASE/PREP		TOTAL FEMALES + INVOLVED + BUY CHICKEN BREASTS	
	OLD A (499)	NEW B (501)	OLD C (257)	NEW D (263)	OLD E (243)	NEW F (237)	OLD G (237)	NEW H (247)	OLD I (157)	NEW J (167)
Yes	42	82 A	40	85 C	44	78 E	40	85 G	45	87 I
No	58 B	18	60 D	15	56 F	22	60 H	15	55 J	13

Q10: "When you first saw the package, did you notice the word "Raw" to describe the product?"

CAPITAL LETTER indicates 95% confidence level vs. other column

Lower case indicates 90% confidence level vs. other column

Product State – What is the product state?

- New packaging copy has significant impact on the percentage of all consumers who believe the chicken is raw, especially among females and females involved in the category

	TOTAL		TOTAL FEMALES		TOTAL MALES		TOTAL FEMALES + INVOLVED IN PURCHASE/PREP		TOTAL FEMALES + INVOLVED + BUY CHICKEN BREASTS	
	OLD A (499)	NEW B (501)	OLD C (257)	NEW D (263)	OLD E (243)	NEW F (237)	OLD G (237)	NEW H (247)	OLD I (157)	NEW J (167)
The chicken is already fully cooked	33 B	16	31 D	12	35 F	21	32 H	12	36 J	12
The chicken is raw	55	76 A	54	82 C	56	70 E	54	82 G	55	83 I
I am not sure if the chicken is raw or fully cooked	12	8	15 D	6	9	10	15 H	6	10	4

Q4: "Based on what you noticed from the packaging, please select one statement below that describes the chicken in this product"

CAPITAL LETTER indicates 95% confidence level vs. other column

Lower case indicates 90% confidence level vs. other column

Product State – Did anything call your attention to raw state and what appliance should be used?

- The oven symbol does a good job in reinforcing the raw state of the product and how it should be cooked, increasing recognition by over 30 points

	TOTAL		TOTAL FEMALES		TOTAL MALES		TOTAL FEMALES + INVOLVED		TOTAL FEMALES + INVOLVED + BUY CHICKEN BREASTS	
	OLD A (499)	NEW B (501)	OLD C (257)	NEW D (263)	OLD E (243)	NEW F (237)	OLD G (237)	NEW H (247)	OLD I (157)	NEW J (167)
Yes	44	76 A	46	80 C	42	73 E	46	80 G	48	85 I
No	56 B	24	55 D	21	58 F	28	54 H	20	52 J	15

Q11: "When you first saw the front of the package, did you see anything calling your attention to the raw state of the product and what appliance should be used to cook the product?"

CAPITAL LETTER indicates 95% confidence level vs. other column

Lower case indicates 90% confidence level vs. other column

Cooking Method – Proper preparation method

- The vast majority of consumers will bake the product in the oven

	TOTAL		TOTAL FEMALES		TOTAL MALES		TOTAL FEMALES + INVOLVED		TOTAL FEMALES + INVOLVED + BUY CHICKEN BREASTS	
	OLD A (499)	NEW B (501)	OLD C (257)	NEW D (263)	OLD E (243)	NEW F (237)	OLD G (237)	NEW H (247)	OLD I (157)	NEW J (167)
Cook in oven	75	79	79	83	72	74	79	83	81	86
Heat in microwave	10	7	8 d	4	13	11	8 h	4	8	4
Cook in oven or heat in microwave	15	14	14	13	16	16	13	13	12	10

Q5: "Which statement best describes the proper preparation method(s) for this product? (Please select one)

CAPITAL LETTER indicates 95% confidence level vs. other column

Lower case indicates 90% confidence level vs. other column

Meat Thermometer – Notice mention of a meat thermometer?

- Women are significantly more likely to notice the mention of a meat thermometer on the new package than males

	TOTAL		TOTAL FEMALES		TOTAL MALES		TOTAL FEMALES + INVOLVED		TOTAL FEMALES + INVOLVED + BUY CHICKEN BREASTS	
	OLD A (499)	NEW B (501)	OLD C (257)	NEW D (263)	OLD E (243)	NEW F (237)	OLD G (237)	NEW H (247)	OLD I (157)	NEW J (167)
Yes	53	70 A	41	76 C	55	62	52	77 G	53	81 I
No	47 B	31	49 D	24	45	38	49 H	23	48 J	19

Q13: "Did you notice anywhere on the packaging the mention of a meat thermometer?"

CAPITAL LETTER indicates 95% confidence level vs. other column

Lower case indicates 90% confidence level vs. other column

Thermometer – Open End Responses

- A meat thermometer suggests consumers must cook the product well and/or to a certain temperature for safety reasons
- It is not necessarily telegraphic that a meat thermometer means raw
- Note: We believe more respondents say they a meat thermometer means “raw” for the old copy because fewer consumers noticed a mention of the meat thermometer for that concept (see previous page) or thought it was raw originally

	TOTAL		TOTAL FEMALES	
	OLD A (499)	NEW B (501)	OLD C (257)	NEW D (263)
Preparation (NET)	**54**	**50**	**59**	**55**
Cook right/well/thoroughly	18	13	22	13
Cook to certain/proper temperature	14	15	13	16
Cook to certain temperature for safe consumption	10	8	12	10
165 degrees/cook to 165 degrees	8	10	7	10
Cook properly/thoroughly for safe consumption	4	3	4	3
Product Attributes (NET)	**17**	**12**	**20**	**14**
Raw food/meat	15 A	8	17 D	8
Need/Usage (NET)	**13**	**19 A**	**13**	**19**
Used to check temperature	5	6	4	7
Check for doneness/safety	3	4	6	5
Don’t like/use it	3	4	4	3
Convenience (NET)	**6**	**7**	**6**	**5**

Q14: “What does the mention of a meat thermometer mean to you about the product and its preparation? Please be as specific as possible.”

CAPITAL LETTER indicates 95% confidence level vs. other column

Lower case indicates 90% confidence level vs. other column

Recommended Raw Packaging Guidelines

Consensus guidelines of top 4 Stuffed Breast manufacturers

Need USDA FSIS input on guidelines & how to standarize

FRONT PANEL:

1. *"Raw" in the name of product to follow USDA regulations*
2. *NEW "RAW CHICKEN" Icon:*
   – the Icon MUST be prominent, conspicuous and legible

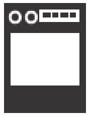
OR

3. *Serving Suggestion notice:*
   – Copy must convey product after cooking/baking
4. *Safety statement at bottom of package:*
   – RAW/RAW PRODUCT - all caps, minimum type height 1/4"
   – FOR FOOD SAFETY . . . all caps or upper and lower case, minimum letter height of the capital letter must be 1/2 the height of RAW

BACK PANEL:

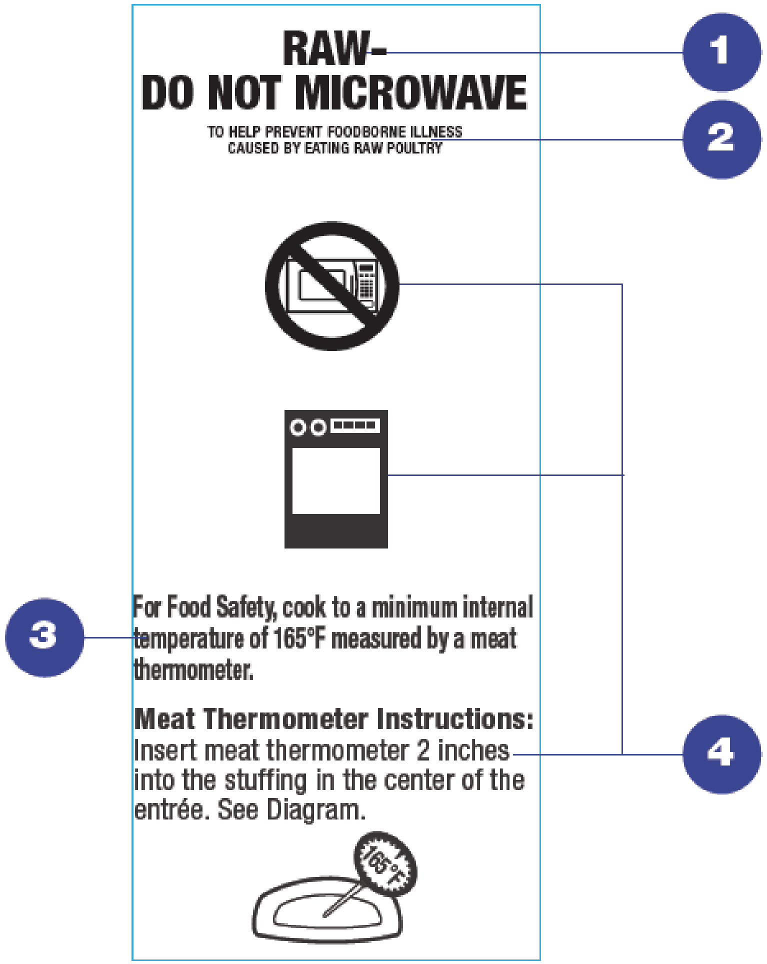
1. *RAW-DO NOT MICROWAVE*
   – all caps
   – must be in RED or if a one color package then it can be in BLACK.
   – minimum type height 3/16”
2. *NEW Foodborne Illness statement adjacent to “RAW-DO NOT MICROWAVE”*
   – minimum type height 1/16”
3. *“For Food Safety, cook to a minimum internal temperature of 165°F measured by a meat thermometer” must appear adjacent to cooking instructions*
4. *Cooking and Meat Thermometer Probing Instructions*
   – three illustrations must appear in this area

1. Do Not Microwave illustration



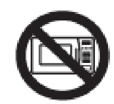
2. An oven illustration

3. Probing illustration with thermometer probing product. Text version of probing instructions must be included and immediately follow cooking instructions.

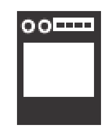


INNER POUCH:

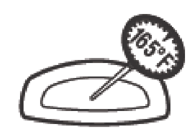
1. *RAW-DO NOT MICROWAVE*
   – all caps
   – must be in RED or if a one color package then it can be in BLACK.
   – minimum type height 3/16"
2. *NEW Foodborne Illness statement adjacent to "RAW-DO NOT MICROWAVE"*
   – minimum type height 1/16"
3. *"For Food Safety, cook to a minimum internal temperature of 165°F measured by a meat thermometer" must appear adjacent to cooking instructions*
4. *Cooking and Meat Thermometer Probing*
   – three illustrations must appear in this area



1. Do Not Microwave illustration



2. An oven illustration



3. Probing illustration with thermometer probing product. Text version of probing instructions must be included and immediately follow cooking instructions.