

# Conference for Food Protection Executive Board Meeting Committee Report

**COMMITTEE NAME:** Time as a Public Health Control

**COUNCIL (I, II, or III):** III

**DATE OF REPORT:** 01 APR 2013

**SUBMITTED BY:** Time as a Public Health Control Committee  
by Sue Vergne and Charles Otto, Co-Chairs

## **COMMITTEE CHARGE:**

**Issue #:** 2012 III-026

**Charge:** The conference recommends:

That a committee be formed to identify safe times at which foods can be held without temperature control and without cooling to 41°F, supported by scientific information (e.g., challenge studies, modeling tools).

The committee's charge shall include, but not be limited to, the following foods and food categories:

- Cut tomatoes
- Cut cantaloupe
- Chopped leafy greens
- Chopped garlic and oil
- Opened canned tuna
- Opened canned beans (e.g., green beans, chickpeas, black beans)
- Hummus
- Opened canned product used as sole item
- Opened canned product used as an ingredient in a formulation

The committee may wish to consider a document published by Institute of Food Technologists (IFT) in 2001 and a National Advisory Committee for the Microbiological Criteria for Foods (NACMCF) challenge study document.

The committee is also charged to report recommendations back to the 2014 CFP biennial meeting.

**COMMITTEE'S REQUESTED ACTION FOR BOARD (If Applicable):** Review and accept this report, changes of affiliation for two indicated committee members and the addition of a science consultant and affiliation corrections from original roster on the attached committee roster. Recommendation for board consideration - use same template for initial roster provided by the Board to Council Chairs as required for the board reports (see below).

**Initial Roster Format – Committee Interest List:**

| <b>3D Time as a Public Health Control</b> |               |                     |             |              |              |            |
|---|---------------|---------------------|-------------|--------------|--------------|------------|
| <b>F Name</b>                             | <b>L Name</b> | <b>Constituency</b> | <b>City</b> | <b>State</b> | <b>Email</b> | <b>Tel</b> |

**Roster Update Format:**

**Committee Name:**

| <b>Last Name</b> | <b>First Name</b> | <b>Position (Chair/<br/>Member)</b> | <b>Constituency</b> | <b>Employer</b> | <b>City</b> | <b>State</b> | <b>Telephone</b> | <b>Email</b> |
|------------------|-------------------|-------------------------------------|---------------------|-----------------|-------------|--------------|------------------|--------------|
|------------------|-------------------|-------------------------------------|---------------------|-----------------|-------------|--------------|------------------|--------------|

**PROGRESS REPORT / COMMITTEE ACTIVITIES WITH ACTIVITY DATES:**

| <b>Summary</b> |  |
|----------------|--|
| <b>Date</b>    | <b>Activity</b>  |
| 08/17/2012     | Email notifying committee members of their appointment by Conference Board; provided charge and solicited input on date for first meeting  |
| 09/06/2012     | Setup committee collaboration SharePoint site  |
| 09/07/2012     | First committee web meeting  |
| 09/26/2012     | Communicated with Dean Rich Linton on 2002 Conference Committee that he chaired that created the current Time as a Public Health Control guidance as a part of the Conference Issue 2004-III-08, Time as A Public Health Control |
| 09/28/2012     | Disseminated first committee web meeting draft minutes and agenda for second committee web meeting   |
| 10/05/2012     | Second committee web meeting   |
| 11/27/2012     | Disseminated second committee web meeting draft minutes and agenda for third committee web meeting   |
| 11/30/2012     | Third committee web meeting  |
| 11/30/2012     | Disseminated Third web meeting recording link to committee members   |
| 02/26/2012     | Disseminated third committee web meeting draft minutes and agenda for second committee web meeting   |
| 03/19          | Fourth committee web meeting   |
|                |  |
|                | <i>See Following Pages for Detailed Committee Meeting Minutes</i>  |

**CFP Time as a Public Health Control Committee  
Meeting Minutes**

**September 7, 2012 1:00 pm EDT**

*Next meeting: (Week of October 1, 2012 – TBD by Member Poll)*

---

**1. Agenda Review**

**2. Attendees**

| <b>Name</b>   | <b>Present</b> |
|---|----------------|
| Charles Otto (Co-Chair)                                 | <b>X</b>       |
| Sue Vergne (Co-Chair)                                   | <b>X</b>       |
| Henry Blade   | <b>X</b>       |
| Bob Brown   | <b>X</b>       |
| Deborah Carney  |                |
| Hector Dela Cruz  | <b>X</b>       |
| Amanda Douglas  |                |
| Robert Jue  | <b>X</b>       |
| Tim Jenkins   | <b>X</b>       |
| Becky Krzyzanowski                                      | <b>X</b>       |
| Gina Nicholson  |                |
| Vito Palazzolo  |                |
| Sue Tyjewski  |                |
| Kenneth Watt  | <b>X</b>       |
| Lisa Weddig   | <b>X</b>       |
| George Zameska  | <b>X</b>       |
| Girvin Liggans  | <b>X</b>       |
| Donna Wanucha   |                |
| <b>Guests:</b><br>Todd Rossow<br>– Council III Co-Chair | <b>X</b>       |

**3. Meeting Recorders:**

A standardized committee meeting minutes form will be used by the committee to facilitate the capture of an overview of the discussion and actions planned. Draft will be circulated within a week and finalized after member review comments are received by that meeting's recorders.

Co-Chairs Sue Vergne and Charles Otto will serve as the recorders for this meeting. Meeting Recorder role will be rotated two different committee members for each meeting by prior request by co-chairs.

With permission of the attendees, the meeting was recorded for the benefit of those who could not attend and for the committee's records. The web meeting recording of the first committee meeting is available at:

Direct Viewing Link: [View Recording](#)

Alternate Logon Information:

Subject: CFPIII - Time As A Public Health Control - Meeting 01  
Recording URL: <https://www.livemeeting.com/cc/cdc/view>  
Recording ID: FR7B37  
Attendee Key: 2012-09-07-A

**Notes:**

1. Select High Fidelity format for best viewing option that uses a web browser format for a player. Select WMV option for replay in a lower quality windows media format.
2. Use your computer's speaker volume control to increase and decrease the recording's volume that varied with the different participant's audio connections.

**4. Discussion of the Committee Charge:**

**Time as a Public Health Control Committee Charge:**

The Conference recommends:

That a committee be formed to identify safe times at which foods can be held without temperature control and without cooling to 41°F, supported by scientific information (e.g., challenge studies, modeling tools).

The committee's charge shall include, but not be limited to, the following foods and food categories:

- Cut tomatoes
- Cut cantaloupe
- Chopped leafy greens
- Chopped garlic and oil
- Opened canned tuna
- Opened canned beans (e.g., green beans, chickpeas, black beans)
- Hummus
- Opened canned product used as sole item
- Opened canned product used as an ingredient in a formulation

The committee may wish to consider a document published by Institute of Food Technologists (IFT) in 2001 and a National Advisory Committee for the Microbiological Criteria for Foods (NACMCF) challenge study document.

The committee is also charged to report recommendations back to the 2014 CFP biennial meeting.

Todd Rossow, Council III Vice-Chair, reminded the committee that the original issue considered by 2012's Council III was III-026.

Committee discussion included:

- Council added the specific food references to the original issue in its deliberations;
- List of foods that could be listed was endless;
- Committee work should use the definition of a potentially hazardous food (PHF) / (time/temperature control for safety food) (TCS) rather than try to add new interpretations to this foundational principle of food safety;
- Current charge list of foods to be considered could be broken down categorically into fresh and processed;
- Issue reference, Food Code requirement (3-501.19(B)(1)), for pre-chilling product to 41°F (5°C) started with 2005 edition of Food Code, which was based on CFP passage of 2004 CFP Issues III-08 – III-10 that resulted from CFP Council III's Time as a Public Health Control Committee recommendations. This Committee was originally established by 2002 CFP in Issue 02-03-22;
- Food Code Public Health Reasons, Food Code Annex 3, cite *Listeria monocytogenes* based on research and USDA pathogen modeling program results for basis of current requirements;
- Committee work should review the NACMF and IFT documents as a starting point for our work; and
- Current scientific literature and research basis of pathogen risks for these commodities and other commodities to be considered need to be a part of our committee's deliberation and recommendations.

## 5. Action Items:

1. Committee reviewed CFP committee cycle and deadlines for our reports:
  - 8/2012 - CFP Board Appoints Committee Members
  - 9/2012 - Time As A Public Health Control Committee – 1st Meeting
  - 3/2013 - Committee 1st Report Due to CFP Board
  - 7/2013 - Committee 2nd Report Due to CFP Board
  - 9/2013 - Committee Begins to Finalize CFP Report / Issues
  - 1/2014 - Committee Submits Report / Issues to CFP
  - 4/2014 - Committee Presents Report / Issues to CFP Council III

2. Before next Committee meeting, members should review charge's reference documents:

- IFT's Evaluation and Definition of Potentially Hazardous Foods  
[<http://www.fda.gov/Food/ScienceResearch/ResearchAreas/SafePracticesforFoodProcesses/ucm094141.htm>]
- NACMF's Parameters for Determining Inoculated Pack/Challenge Study Protocols  
[[http://www.fsis.usda.gov/PDF/NACMCF\\_Inoculated\\_Pack\\_2009F.pdf](http://www.fsis.usda.gov/PDF/NACMCF_Inoculated_Pack_2009F.pdf)]

**6. Sub-Committee Formation and Objectives:**

At this time, the committee felt no need to create subcommittees.

**7. Wrap-Up**

Wrap up items included:

- Reviewed discussion of the issue and action items before next call;
- Considered the committee's preference for web meeting as format for our meetings;
- Time of 1 PM Eastern seemed to work for those in attendance; and
- Discussed the Committee's SharePoint site as our collaboration platform.

**8. Next Meeting**

*Week of October 1, 2012 – Date to be determined by Member Poll*

Council III - Time as a Public Health Control Committee  
**CFP Time as a Public Health Control Committee**  
**Meeting Minutes**

*Second Meeting October 5, 2012 1:00pm*

*Next meeting TBD: 1st or 2nd Friday in November 2 or 9*

---

**1. Agenda Review**

**2. Attendees**

| <b>Name</b>             | <b>Present</b> |
|-------------------------|----------------|
| Charles Otto (Co-Chair) | x              |
| Sue Vergne (Co-Chair)   | x              |
| Henry Blade             | x              |
| Bob Brown               | x              |
| Deborah Carney          | x              |
| Hector Dela Cruz        | x              |
| Amanda Douglas          |                |
| Robert Jue              | x              |
| Tim Jenkins             |                |
| Becky Krzyzanowski      |                |
| Gina Nicholson          |                |
| Vito Palazzolo          | x              |
| Sue Tyjewski            | x              |
| Kenneth Watt            |                |
| Lisa Weddig             | x              |
| George Zameska          | x              |
| Girvin Liggans          |                |
| Donna Wanucha           | x              |
| <b>Guests:</b>          | x              |
| Rich Linton             |                |

**3. Meeting Recorders**

Henry Blade and Lisa Weddig will serve as the recorders for this meeting.

With permission of the attendees, the meeting was recorded for the benefit of those who could not attend and for the committee's records. The web meeting recording of the meeting is available at:

Direct Viewing Link: [View Recording](#)

Alternate Logon Information:

Subject: CFP III - Time As A Public Health Control - Meeting 02

Recording URL: <https://www.livemeeting.com/cc/cdc/view>

Recording ID: 3KB27B

Attendee Key: 2012-10-05-A

**Notes:**

1. Select High Fidelity format for best viewing option that uses a web browser format for a player. Select WMV option for replay in a lower quality windows media format.
2. Use your computer's speaker volume control to increase and decrease the recording's volume that varied with the different participant's audio connections.

**4. Discussion with Dr. Richard Linton**

Dr. Linton reviewed activities of the 2004 TPHC Committee and key findings relevant to our committee charge. Dr. Linton also reviewed key points of the 2001 NACMCF paper and provided suggestions of additional resources to support our charge.

Review of the 2001 NACMF Paper

- 40-140°F was the original schedule. The committee used a very conservative approach to develop the new 41-135°F range.
- Appendix 1 in the paper shows the comprehensive list of pathogens they reviewed. The committee considered worst case scenarios for foods and pathogens, asking "Which pathogens grow fastest (specifically "How long to increase by 1,2,3 logs?") at what temperatures?" The conclusions were:
  - *Listeria monocytogenes* target pathogen for <70°F;
  - *Clostridium perfringens* and *Staphylococcus aureus* >70°F;

Dr. Linton suggests we also stay conservative:

- Dr. Linton said the committee's original recommendation of 4 hours at room temperature is extremely conservative and could be 2-3 times longer, even without factoring in lag time. But he suggested we stay conservative with our recommendations and look at the worst case temperatures and how long product can be held.
- The committee considered temperature changes of foods as instant to be conservative, and because it was difficult to predict temp rates of change given different foods.

Useful Resources mentioned by Dr. Linton

- Dr. Linton suggested information could be found through a literature review, consulting with experts and by using the USDA Pathogen Modeling Program and the ComBase Predictor.
- It may be difficult to find published research on products other than cut tomatoes, cut melon and leafy greens.
- The 2004 Time as a Public Health Control Committee report will be a useful reference. Charles will post it to the FDA Collaboration Site.
- The ComBase program allows putting in changing time and temperature parameters to test our hypotheses about temperature only as a control, but Dr. Linton also suggested we get further guidance from experts who served on the committee:



- Microbial modeling w/ Dr. Schaffner (Rutgers University)
- Linda Harris (UC Davis) knows about food cooling/warming and leafy greens

## **5. Reviewed and approved Minutes from Last Meeting**

The minutes will be posted on the committee collaboration website.

## **6. Review and discussion of Committee's Charge**

The group discussion focused on how the Charge could be differentiated between two "time as a control" scenarios depending on the way temperature would be changing:

- I. Starting under cold/hot temp control, then going out of control by holding at ambient or room temperature in the kitchen (safe times without any temperature control).
- II. Starting at ambient, not under cold/hot temp control, and remaining at ambient or room temperature in the kitchen (safe times without cooling to 41°F)

## **7. CDC/FDA Collaboration Site**

- Charles reviewed how to get on the site, log on, welcome screen, announcements, calendar, features, etc.
- Members will receive information by email on how to access site
- Shared documents / Common filing system is a key feature.
- Emails alert will indicate when new items are added to filing. The alert levels can be selected. Committee members can add documents materials to file.
- Common Discussion board for on-line discussions of specific topics.

## **8. Review & Discussion of other useful Reference Documents & Tools**

- 2001 IFT Evaluation and Definition of PHF / TCS Report
  - Discussed how the interactions of food parameters ( $a_w$ , pH, nutrient, bio structure, etc.) is complex, and we'll need to be precise on using terms.
  - Discussed the importance of considering the factors for growth to group food types by common characteristics; same goes for the organisms of concern. The combinations of foods and organisms will have bearing on how conservative our approach will be.
  - Regarding processing effects, e.g. heat transfer, discussed the difficulty in predicting rates of food temp change given different foods, and the prior committee used instant temperature changes to be conservative.
  - Reviewed the framework for determining whether foods were PHF/TCS, or not. Discussed usefulness of TCS determination tables and flow chart; good for deciding if a challenge test is needed.
- NACMF 2009 Parameters for Inoculated Pack/Challenge Studies

#### Council III - Time as a Public Health Control Committee

- Reviewed factors to consider, methods, decision tree. Discussed how this study can be helpful in understanding what parameters control growth. We can apply for general categories of nature of individual or groups of foods, pathogens
- “Comm Base” program is referenced in NACMF 2009. Charles will post the website on our collaboration site.

### **9. Sub-Committee Formation and Objectives**

- Discussed tackling the foods listed in the charge by two groups (heat treated and not heat treated / raw), considered opening with canned tuna, but after discussion chose Cut-Tomatoes because research publications would be available.
  - Sue will generate a list of questions and post to the site Discussion Board to get us thinking and talking.
  - Committee members should add more questions, participate in the on-line discussion, and post any relevant articles / information.

### **10. Wrap-Up & Next Meeting**

- 1st or 2nd Friday, November 2 or 9. Sue or Charles will put out an online poll to decide date

### **11. Action Items**

- Our first report is due March 2013
- Donna Wanucha will post 2006 FDA guidance document for PHF/TCS.
- Sue and Charles will reach out to former committee.
- Charles will post the “Comm Base” program website on our collaboration site.
- Need to identify volunteers to lead product discussions.

**CFP Time as a Public Health Control Committee  
Meeting Minutes**

*Third Meeting November 30, 2012 1:00pm EST*

*Next meeting TBD: Projected to be third week of January, 2013*

---

**1. Agenda Review**

**2. Attendees**

| <b>Name</b>             | <b>Present</b> |
|-------------------------|----------------|
| Charles Otto (Co-Chair) | x              |
| Sue Vergne (Co-Chair)   | x              |
| Henry Blade             | x              |
| Bob Brown               |                |
| Deborah Carney          | x              |
| Hector Dela Cruz        | x              |
| Amanda Douglas          | x              |
| Robert Jue              | x              |
| Tim Jenkins             | x              |
| Becky Krzyzanowski      | x              |
| Gina Nicholson          |                |
| Vito Palazzolo          |                |
| Sue Tyjewski            | x              |
| Kenneth Watt            |                |
| Lisa Weddig             |                |
| George Zameska          | x              |
| Girvin Liggans          | x              |
| Donna Wanucha           | x              |
| <b>Guests:</b>          |                |
| Dave Gifford            |                |
| Todd Rossow             | x              |

**3. Meeting Recorders**

Deb Carney and Hector Dela Cruz served as the recorders for this meeting.

With permission of the attendees, the meeting was recorded for the benefit of those who could not attend and for the committee's records. The web meeting recording of the meeting is available at:

Direct Viewing Link:

<https://www304.livemeeting.com/cc/cdc/view?id=KBKJ7Z-1&pw=2012-11-30-A>

Alternate Logon Information:

**Notes:**

3. Select High Fidelity format for best viewing option that uses a web browser format for a player. Select WMV option for replay in a lower quality windows media format.
4. Use your computer's speaker volume control to increase and decrease the recording's volume that varied with the different participant's audio connections.

**4. Reviewed and approved Minutes from Last Meeting**

Minutes will be posted on the committee collaboration website.

**5. Discussion with Girvin Liggins Regarding FDA Guidance on Cut Tomatoes**

Girvin reviewed the FDA "Program Information Manual (PIM): Retail Food Protection Storage and Handling of Tomatoes," specifically inoculation studies reported in Attachment B.

Review of Inoculation Studies of Beefsteak and Roma Tomatoes

- No pathogen (*Salmonella* Enteridis and *Salmonella* Newport) growth was observed following Lag Phase Duration Time in tomatoes held at 41°F.
- Pathogen growth rates for tomatoes held at 72°F did not reach a 1-log increase.
- Results suggest that TPHC can begin at the first cut, regardless if the tomato is not cooled to 41°F.
- Results suggest that if the temperature of cut tomatoes did not go above 70°F, holding without temperature control could safely go as long as 8 hours.
- Girvin expressed caution, suggesting the study results not be extrapolated to other produce commodities.

Use of Tomatoes that Have Yet to Finish Cooling to 41°F

- Donna Wanucha mentioned that tomatoes removed from the cooling process must be for immediate use.
  - If the tomatoes have not yet reached 41°F when removed from cooling, the TPHC clock begins when the tomatoes were initially cut, regardless if they are currently being cooled.
- The Committee felt that missing from the FDA PIM is clarification for foods in the process of being cooled and how it applies to a TPHC plan.

**6. Dr. Don Schaffner's General Interest Paper**

Dr. Schaffner's paper was introduced by Charles Otto. It is a computer model for use as a tool in managing risks posed by rising temperatures during food transport.

## **7. CDC/FDA Collaboration Site**

- Charles invited all to share feedback on the site. General consensus was that all were very satisfied with the site; however, some have had difficulties logging on.
- Those having difficulties with logging on were asked to contact Charles for assistance
- Key features were mentioned, specifically the discussion board.

## **8. Selection of Next Food Item for Assessment**

- Vote on the selection of a Processed Food vs. Produce.
  - Online vote was 6-1 in favor of Processed Food.
  - Telephone vote was 3-0 in favor of Processed Food.
  - A Processed Food (canned good) will be the next food item assessed. Consensus was the selection of canned beans.
- Committee members should post the following info to share on the Collaboration site by the first week of January:
  - i. Parameters for consideration (e.g. mashed vs. whole, room temperature can vs. refrigerated, pathogens/agents, pH, water activity)
  - ii. Studies, outbreak data, pathogen modeling data.

## **9. Wrap-Up & Next Meeting**

- Third week of January, 2013.

**CFP Time as a Public Health Control Committee**  
***DRAFT Meeting Minutes (To Be Reviewed, Modified and Accepted in April 2013 Meeting)***

*Fourth Meeting March 19, 2013 1:00pm EST*  
*Next meeting TBD: Projected to be in next 4 weeks.*

---

**1. Agenda Review**

**2. Attendees**

| <b>Name</b>             | <b>Present</b> |
|-------------------------|----------------|
| Charles Otto (Co-Chair) | x              |
| Sue Vergne (Co-Chair)   | x              |
| Henry Blade             |                |
| Bob Brown               |                |
| Deborah Carney          | x              |
| Hector Dela Cruz        |                |
| Amanda Douglas          | x              |
| Robert Jue              | x              |
| Tim Jenkins             | x              |
| Becky Krzyzanowski      |                |
| Gina Nicholson          |                |
| Vito Palazzolo          |                |
| Sue Tyjewski            | x              |
| Kenneth Watt            |                |
| Lisa Weddig             | x              |
| George Zameska          | x              |
| Girvin Liggans          | x              |
| Donna Wanucha           | x              |

**3. Meeting Recorders**

Amanda Douglas and Tim Jenkins served as the recorders for this meeting.

With permission of the attendees, the meeting was recorded for the benefit of those who could not attend and for the committee's records. The web meeting recording of the meeting is available at:

Direct Viewing Link: [View Recording](#)

Alternate Logon Information:

Subject: CFP III Time As A Public Health Control - Meeting 04  
Recording URL: <https://www.livemeeting.com/cc/cdc/view>  
Recording ID: QZ34S2h  
Attendee Key: 2013-03-19-A

**Notes:**

Select High Fidelity format for best viewing option that uses a web browser format for a player. Select WMV option for replay in a lower quality windows media format.

Use your computer's speaker volume control to increase and decrease the recording's volume that varied with the different participant's audio connections.

**4. Reviewed and approved Minutes from Last Meeting**

Minutes will be posted on the committee collaboration website.

**5. CDC/FDA Collaboration Site**

- Charles invited feedback from the group on the site. General consensus was that the group is not fully utilizing the collaboration site due to either site technical issues or an expired password.
- Charles is investigating with the technical support group and will provide an update to the group.
- Charles informed everyone that their password will need to be reset every 90 days and an email reminder will be sent to prompt this action.
- Charles reiterated the importance of everyone accessing and using the site when the issues have been resolved.

**6. Canned Beans Discussion**

Charles opened up the discussion on the canned bean food item (green beans, chickpeas and black beans) to determine what information has been collected by the group.

- Charles confirmed with the group that canned beans are considered sterile until they are opened. Charles asked what pathogens are likely to contaminate the product. The group indicated that Staph aureus and any of the normal human pathogens need to be considered. Dr. Donald Schaffner has created a chart showing which organisms grow and which temperatures
- Charles asked the group about Listeria growth rates at ambient temperatures. Is there a concern in regard to Listeria even though studies suggest 8 hours is safe for other organisms?
- Charles confirmed that the discussion was for canned beans only and does not include canned beans mixed with other products. The canned beans when opened are envisioned being placed on a cold serving line/food bar.

- Bob Jue found some research on *Bacillus Cereus*. The goal of canning is to get a spore kill temp. Canned green beans were not specified in literature on canning process. *Bacillus cereus* can survive pasteurization but there are not a lot of outbreaks associated. Lisa Weddig said that *Bacillus Cereus* is more heat resistant than *C. bot.*
- There may not be sufficient examples in literature of bacteriological growth after opening canned product unless there is contamination after opening. There are pathogen charts for other food products though.
- George Zameska searched extensively but could not find studies or references bacteriological studies on canned beans. He did see literature on other canned foods indicating no significant growth under ideal conditions for up to 8 hours after opening the can.
- Donna said that product should start cold or hot, not room temperature. We need to consider the environment in which time as a public health control is being used – salad bars are open to contamination.
- Sue Vergne commented that food service may start prep at 8am which allows limited time for cooling beans from the can starting from ambient temperature. Requiring cold storage of canned products impacts food service cost, space and time.
- Girvin has posted canned and fresh string bean and kidney bean pH and water activity information on the collaboration site. The pH is variable from 5.4 to 7.0 and both have high water activity. This therefore means that these products are TCS. We need to define question and hone in on the products. Modeling is needed to determine log growth. We need a basic model for worse case scenarios. If the worst case is not a significant risk then we are better able to assess if modification is possible.
- Deborah Carney referred to an example of hummus made from canned Garbanzo beans and a food borne illness case but said we don't yet have scientific backing to determine if we whether or not the 4 hours limit could be extended.
- The group identified that a likely pathogen of concern is *B. cereus*. Charles asked the group whether an effective canning process would likely eliminate *B. cereus* spores. The group felt it would.
- The group discussed what types of outbreaks have been linked to canned beans. The consensus was that the outbreaks were caused by an ineffective canning process. *C. botulinum* was the pathogen linked to the outbreaks.
- A couple members of the group mentioned that they had difficulty in finding information on canned beans. It was suggested that this could be



due to the product being sterile which explains why there is a lack of scientific literature.

- The group indicated that they were comfortable with an ambient starting temperature rather than requiring 41°F, a little more work to do on possible pathogens for time. Group agreed that Ambient Temperature definition is a range from 70 to 75 degrees.
- George posed to the group “What is the likely risk of contamination after opening a canned product? How does this apply to green beans? We don’t have what we need in literature at this point to make a conclusion. Does Green Giant or other canning processors have research?”

## **7. Committee’s Charge Discussion**

The group reviewed the committee’s charge and discussed the following:

- The food items identified in the charge become TCS and require TPHC upon opening or cutting. TPHC currently requires TCS food items be cooled to 41°F prior to utilizing TPHC.
- The identified food items in the charge are normally held at an ambient temperature prior to opening or cutting, the committee therefore needs to determine whether there is enough evidence for these food items to start at ambient rather than being cooled to 41°F prior to utilizing TPHC. Girvin suggested that this needs to be determined by reviewing: pH, water activity and pathogens of concern from the food item and potential contamination at the location. Computer modeling would then need to be completed to determine whether these products start at 41°F or at ambient.
- It was agreed that the worst case ambient temperature must be defined as this is variable and could be subject to interpretation if not defined. 70°F to 75°F was discussed as a starting point.
- Girvin and Donna recommended that the current 4 hours or 6 hours determined under TPHC be used as the groups starting point rather than looking at extending the 4 hours or 6 hours under the existing TPHC. Charles stated that after reviewing the previous CFP committee the original 4 hours is related to the growth of Listeria.

## **8. Selection of Next Food Items for Assessment**

Charles presented a table with all the food items that need to be assessed. The group was asked to pair up and volunteer. Everyone on the call volunteered, and it was agreed that the team members not on the call will be assigned a partner and food item.

The table will be formatted with the information that needs to be investigated and gathered ahead of the next meeting and sent back out to the group for

Council III - Time as a Public Health Control Committee

completion. It was agreed cantaloupe and leafy greens will be presented at the next meeting. It was also reiterated that all teams need to have the table completed with as much information as possible by the next meeting to keep the committee's charge on track.

## 9. Committee Action Item Updates

Charles updated the group on the action items required to be reported to the CFP board. Charles and Sue will be drafting a report over the next two weeks which will be sent out to the group for review and comment prior to submittal to the CFP board. **The Committee Report to CFP Board is due April 7. Any issues need to be submitted by early 2014. Our meeting schedule will change to monthly to meet deadlines.**

### **Action items for next meeting:**

Leafy Greens Report Amanda Douglas and Tim Jenkins.  
Cantaloupe Report Charles Otto and Bob Jue.

## 10. Wrap up & Next Meeting

Next meeting to be scheduled within the next 4 weeks.

3/20/2013

**TPHC Committee - Product Category Table**

|  |  |                                  |                                     |   |                                  |
|--|--|----------------------------------|-------------------------------------|---|----------------------------------|
|  | <b>Group Members:</b>  | Group                            |                                     |   |                                  |
|  | <b>Examples &amp; Description:</b>   | Sliced, chopped, diced tomatoesw |                                     |   |                                  |
| <b>Cut Tomatoes</b>                          | <b>pH</b>  | <b>Water Activity</b>            | <b>Product Pathogens of concern</b> | <b>Contamination Pathogens of concern</b> | <b>Outbreak Information/data</b> |
|  | <p>Girvin Liggans provided - FDA "Program Information Manual (PIM): Retail Food Protection Storage and Handling of Tomatoes". The main information was obtained from inoculation studies reported in Attachment B.</p> <p><b><u>Review of Inoculation Studies (Attachment A) of Beefsteak and Roma Tomatoes:</u></b></p> <ul style="list-style-type: none"> <li>• No pathogen (Salmonella Enteridis and Salmonella Newport) growth was observed following Lag Phase Duration Time in tomatoes held at 41°F.</li> <li>• Pathogen growth rates for tomatoes held at 72°F did not reach a 1-log increase.</li> <li>• Results suggest that TPHC can begin at the first cut, regardless if the tomato is not cooled to 41°F.</li> <li>• Results suggest that if the temperature of cut tomatoes did not go above 70°F, holding without temperature control could safely go as long as 8 hours.</li> </ul> |                                  |                                     |   |                                  |
| <b>literature reviewed &amp; references:</b> |  |                                  |                                     |   |                                  |

|  |   |   |                                     |   |  |
|--|---|---|-------------------------------------|---|--|
| <b>Opened Canned Beans</b>                   | <b>Group Members:</b>   | Group   |                                     |   |  |
|  | <b>Examples &amp; Description:</b>  | Green beans, chickpeas and black beans. Opened canned beans only and does not include canned beans mixed with other products. The canned beans when opened are envisioned being placed on a cold serving line/food bar. |                                     |   |  |
|  | <b>pH</b>   | <b>Water Activity</b>   | <b>Product Pathogens of concern</b> | <b>Contamination Pathogens of concern</b> | <b>Outbreak Information/data</b>   |
|  | Fresh and Canned: 5.4 - 7   | High  | B. cereus                           | <i>More information needed</i>            | Outbreaks linked to ineffective canning process. C. botulinum was the pathogen linked to the outbreaks |
| <b>literature reviewed &amp; references:</b> | Girvin has posted information on the Collaboration Site which needs to be reviewed. |   |                                     |   |  |

|  |                                    |                        |                                     |   |                                  |
|--|------------------------------------|------------------------|-------------------------------------|---|----------------------------------|
| <b>Cut<br/>Cantaloupe</b>                    | <b>Group Members:</b>              | Bob Jue & Charles Otto |                                     |   |                                  |
|  | <b>Examples &amp; Description:</b> |                        |                                     |   |                                  |
|  | <b>pH</b>                          | <b>Water Activity</b>  | <b>Product Pathogens of concern</b> | <b>Contamination Pathogens of concern</b> | <b>Outbreak Information/data</b> |
|  |                                    |                        |                                     |   |                                  |
| <b>literature reviewed &amp; references:</b> |                                    |                        |                                     |   |                                  |

|  |                                    |                              |                                     |   |                                  |
|--|------------------------------------|------------------------------|-------------------------------------|---|----------------------------------|
| <b>Cut Leafy Greens</b>                      | <b>Group Members:</b>              | Tim Jenkins & Amanda Douglas |                                     |   |                                  |
|  | <b>Examples &amp; Description:</b> |                              |                                     |   |                                  |
|  | <b>pH</b>                          | <b>Water Activity</b>        | <b>Product Pathogens of concern</b> | <b>Contamination Pathogens of concern</b> | <b>Outbreak Information/data</b> |
|  |                                    |                              |                                     |   |                                  |
| <b>literature reviewed &amp; references:</b> |                                    |                              |                                     |   |                                  |

|  |                                    |                              |                                     |   |                                  |
|--|------------------------------------|------------------------------|-------------------------------------|---|----------------------------------|
| <b>Chopped<br/>Garlic &amp;<br/>Oil</b>      | <b>Group Members:</b>              | Sue Tyjewski & Donna Wanucha |                                     |   |                                  |
|  | <b>Examples &amp; Description:</b> |                              |                                     |   |                                  |
|  | <b>pH</b>                          | <b>Water Activity</b>        | <b>Product Pathogens of concern</b> | <b>Contamination Pathogens of concern</b> | <b>Outbreak Information/data</b> |
|  |                                    |                              |                                     |   |                                  |
| <b>literature reviewed &amp; references:</b> |                                    |                              |                                     |   |                                  |

|  |                                    |  |                                     |   |                                  |
|--|------------------------------------|--|-------------------------------------|---|----------------------------------|
| <b>Hummus - Commercially Prepared / Prepared at location</b> | <b>Group Members:</b>              | <i>Hector Dela Cruz, Kenneth Watt &amp; Becky Krzyzanowski - To Be Confirmed</i> |                                     |   |                                  |
|  | <b>Examples &amp; Description:</b> |  |                                     |   |                                  |
|  | <b>pH</b>                          | <b>Water Activity</b>  | <b>Product Pathogens of concern</b> | <b>Contamination Pathogens of concern</b> | <b>Outbreak Information/data</b> |
|  |                                    |  |                                     |   |                                  |
| <b>literature reviewed &amp; references:</b>                 |                                    |  |                                     |   |                                  |



|  |                                    |                              |                                     |   |                                  |
|--|------------------------------------|------------------------------|-------------------------------------|---|----------------------------------|
|  | <b>Group Members:</b>              | Lisa Weddig & George Zameska |                                     |   |                                  |
|  | <b>Examples &amp; Description:</b> |                              |                                     |   |                                  |
|  | <b>pH</b>                          | <b>Water Activity</b>        | <b>Product Pathogens of concern</b> | <b>Contamination Pathogens of concern</b> | <b>Outbreak Information/data</b> |
| <b>Opened Canned Tuna</b>                    |                                    |                              |                                     |   |                                  |
| <b>literature reviewed &amp; references:</b> |                                    |                              |                                     |   |                                  |

|  |                                    |   |                                     |   |                                  |
|--|------------------------------------|---|-------------------------------------|---|----------------------------------|
|  | <b>Group Members:</b>              | Bob Brown & Gina Nicholson - <i>To Be Confirmed</i> |                                     |   |                                  |
|  | <b>Examples &amp; Description:</b> |   |                                     |   |                                  |
|  | <b>pH</b>                          | <b>Water Activity</b>                               | <b>Product Pathogens of concern</b> | <b>Contamination Pathogens of concern</b> | <b>Outbreak Information/data</b> |
| <b>Open Canned Product - Sole Product</b>    |                                    |   |                                     |   |                                  |
| <b>literature reviewed &amp; references:</b> |                                    |   |                                     |   |                                  |

|   |                                    |   |                                     |   |                                  |
|---|------------------------------------|---|-------------------------------------|---|----------------------------------|
|   | <b>Group Members:</b>              | <i>Henry Blade, Girvin Liggans &amp; Vito Palazzolo - To Be Confirmed</i> |                                     |   |                                  |
|   | <b>Examples &amp; Description:</b> |   |                                     |   |                                  |
|   | <b>pH</b>                          | <b>Water Activity</b>   | <b>Product Pathogens of concern</b> | <b>Contamination Pathogens of concern</b> | <b>Outbreak Information/data</b> |
| <b>Open Canned Product - Mixed with other products.</b> |                                    |   |                                     |   |                                  |
| <b>literature reviewed &amp; references:</b>            |                                    |   |                                     |   |                                  |

**Proposed Next Meeting Dates:** *(Copy and Paste Table into Your Reply, Please)*

| Last Name                    | 1:00 – 2:30 PM EDT  |                  |                    | Please Put An X If 1:00 PM EDT is <b>Acceptable</b> on This Day<br><br>or Specify <b>Alternate Afternoon Times</b> Available on These Days, if 1:00 PM EDT Does Not Work for Your Schedule |
|------------------------------|---------------------|------------------|--------------------|--|
|                              | Thursday<br>- 04/18 | Monday-<br>04/22 | Tuesday<br>- 04/23 |  |
| Available to be a note taker |                     |                  |                    | Two Needed If You Have Not Already Done This for Our Committee   |

**Proposed Meeting Agenda:**

**CFP Council III Time as a Public Health Control Committee Meeting 05**

**April 18, 22, or 23, 2013 – 1:00 – 2:30 PM EDT**

**Roll Call:**

|                         |  |                                    |  |
|-------------------------|--|------------------------------------|--|
| Charles Otto (Co-Chair) |  | Gina Nicholson                     |  |
| Sue Vergne (Co-Chair)   |  | Vito Palazzolo                     |  |
| Henry Blade             |  | Sue Tyjewski                       |  |
| Bob Brown               |  | Kenneth Watt (Ken)                 |  |
| Deborah Carney (Deb)    |  | Lisa Weddig                        |  |
| Hector Dela Cruz        |  | George Zameska                     |  |
| Amanda Douglas          |  | Girvin Liggans (FDA Consultant)    |  |
| Bob Jue                 |  | Donna Wanucha (FDA Consultant)     |  |
| Tim Jenkins             |  | Don Schaffner (Science Consultant) |  |
| Becky Krzyzanowski      |  |                                    |  |
| Guests:                 |  |                                    |  |

**Review Committee Charge /Timetable**

**Note Taker Recognition**

**Review / Approve Minutes – 03/19/2013**

**SharePoint Collaboration Site Update**

**Committee Discussion – Products and Commodities**

- Cantaloupe – Bob Jue & Charles Otto
- Leafy greens - Tim Jenkins & Amanda Douglas
- Review of the Completion of Other Commodities and Products Table Completion

**Selection of Next Food Item for Assessment**

**Set Date for Next Meeting**

**Adjourn**