

Sanitary Equipment and Facility Design PDG

Attendees: John Merenick (Chair), Dimitri Tavernarakis (Vice Chair), Lang Sun (Student Liaison), Ayojesutomi Abiodun-Solanke, Samir Assar, Thomas Bell, April Bishop, Stine Bislev, Rachael Blevins, David Blomquist, Craig Bolt, Richard Brouillette, Marlita Burford, Vanessa Bussiere, Erdogan Ceylan, Casey Chester, Michelle Chester, Willette Crawford, Cecilia (Maria) Crowley, Tracey David, Mark Davis, Joan Donelan-Weber, Alejandro Echeverry, Tom England, Maria Espana, Wade Fluckey, Aliyar Fouladkhah, Robert Fuller, Balasubramanian Ganesan, Peggy Good, Duane Grassmann, Marco Guzman, Hillary Hagan, Margaret Hardin, John Holah, Terry Howell, Tsung Han Hsieh, J. Michael Hudson, Jeffrey Hutchison, Lotte Jensen, Billie Johnson, Amit Kheradia, Ahyoon Kim, Larry Kohl, Lori Kora, Yale Lary, Craig Ledbetter, Jeong-Eun Lee, Kory Longhurst, Lisa Lucore, Spir Marinakis, Tyler Mattson, Rachel McEgan, Nathan Mirdamadi, Steven Murphy, James O'Donnell, Dan Okenu, Mary O'Meara, Donna Pahl, Lalaina Randriamanantsoa, Tim Rugh, Anthony Saitta, Michele Sayles, Steven Sims, Kevin Smith, Sarah Speelman, Anna Starobin, Frederick Stokes, Trevor Suslow, Scott Thacker, Karl Thorson, Greg Vallee, Stephen Walker, Josh Warren, and Kris Young.

Number of Attendees: 75.

Meeting Called to Order: 3:15 p.m., Sunday, July 8, 2018.

Minutes Recording Secretary:

Featured Speaker – Paul Krechel “Hygienic Design of Food Processing Equipment.” Paul introduced bacteria issues in food industry and its influence on public health and food companies’ finances. He mentioned major issues are due to the most known pathogens, which are *E. coli*, *Listeria*, and *Salmonella*. He talked about things that will promote bacteria growth, which are bacteria accumulation on food, stagnant water, and insufficient cleaning time; and things that will inhibit bacteria growth, which are exerting pH pressure, adding competition microorganisms, increasing cleaning time and temperature. Then, he pointed challenges in keeping a sanitary working environment and plants. There three major challenges regarding food processing equipment, firstly, during food processing, there are harborage choke point where food build up bacteria growth; secondly, equipment are not designed well for easy cleaning, such as harborage point, horizontal surface with water staying for long time, hollow tubing, and improper chemical use; thirdly, it is difficult for good maintenance of the equipment, for example hard to reach components, complex design, and potential risks to personnel safety. Subsequently, he provided solutions to these challenges accordingly with pictures and illustrations of his model equipment. In terms of solution addressing growth of bacteria, equipment could be easily assembled and cleaned, and remove horizontal surface with angle design. He showed us an example of rotating belt that water will fall off while food will still under processing smoothly.

At the end of his speech, he raised two questions: 1) how could food equipment manufacturer further collaborate with industry to meet sanitary expectations? 2) are there sanitary expectations not being met by equipment provider today? The audience and speaker had a discussion over these two questions. Major points are listed as follows:

- Suggested equipment manufactures to provide do's and don'ts for the cleaning of equipment as they might be damaged by misuse of cleaning chemicals.
- Since angle design is a common rule in dairy industry, but not emphasized in produce industry, how could people do to promote these rules to the rest of food industry?
- What could we do with current equipment that was purchased to use for decades, is there a way to retrofit current assets to improve their sanitation.

- Emphasizing on food standpoint may not be enough to justify the cost of sanitary equipment, other perspectives should also be considered.
- Insurance companies are now interesting to learn more to evaluate the risks of this equipment, which may provide another way to address cost benefit.
- Having design team from equipment manufactures visiting food industry and knowing what people are doing may help better designing.
- Packing raw agricultural commodities challenges to sanitation and equipment design.
- Asking for trainings for both auditors as well as food industry. How should food industry react to auditors if auditors think equipment is not hygiene?
- Maybe not making sanitary design an option when companies are purchasing equipment.

Old Business:

Reminder, our PDG co-sponsors the following sessions at this year's IAFP meeting.

- S8. From Cow to Curd: Defining Microbiomes in the Dairy Industry.
- S28. Cleaning Validations – Approaches in Retail Food and Food Manufacturing.
- S56. Maximizing Food Safety and Quality Through Application of Hygienic Design.

New Business:

- Discussed having quarterly online call-in meetings to start the discussion on subjects for next year's PDG meeting. John M. to set up call in.
- Several topics being proposed by the 3A PDG were discussed. Approval from our PDG on co-sponsoring several of the topics discussed.
- Reminder IAFP 2019 symposia, roundtable and workshop proposals is October 2, 2018.
- New symposium ideas for our PDG listed below:
 1. Guarding of Equipment: The battle between employee safety and food safety.
 2. Hygienic design training for auditors in the food industry.
 3. Sanitary requirements for facility design in GFSI: what is covered, what is not as compared with other standards and legal requirements.
 4. Cleaning chemicals compatibility with equipment finishes. Newer chemicals with newer finishes.

Recommendations to the Executive Board:

1. Recommend approval of Dimitri Tavernarkis as Vice Chair.

Next Meeting Date: July 21–24, 2019, Louisville, KY.

Meeting Adjourned: 4:50 p.m.

Chairperson: John Merenick.