



Exponent[®]
Engineering & Scientific Consulting

Taryn Horr, CCFS

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Professional Profile

Ms. Taryn Horr is a Managing Scientist in Exponent's Health Sciences Center for Chemical Regulation and Food Safety. She has a strong background in food science and engineering and is certified in Comprehensive Food Safety (CCFS) through the National Environmental Health Association (NEHA).

Ms. Horr specializes in the evaluation and control of hazards and health risks in foods, beverages, cosmetics, dietary supplements and over-the-counter (OTC) drugs. Her client base includes industry, trade associations, insurance companies and law firms. She regularly consults in the development, assessment and improvement of quality and safety programs and often is sought out to advise on the response to safety and quality issues. She has conducted safety assessments on farms and at food, dietary supplement and cosmetic manufacturing and distribution establishments and performed root cause assessments for contamination events and product failures in processing, distribution, and retail facilities, both domestically and internationally. She has also evaluated food borne illness investigations performed by federal, state and local agencies.

Ms. Horr routinely assesses production and packaging facilities for compliance to the United States Department of Agriculture (USDA) and the Food and Drug Administration's (FDA) regulations, including Good Manufacturing Practices (GMPs), as well as for best industry practices including those defined in Global Food Safety Initiative (GFSI) standards. She is a certified Preventative Controls Qualified Individual (PCQI). She has previously assisted cosmetic companies in compliance with FDA GMP guidelines and is actively tracking the development of FDA's Modernization of Cosmetics Regulations Act (MoCRA) to continue to support the cosmetic industry in adherence to best industry practices and future GMP regulations to ensure the safe production of cosmetics. She has used her depth in knowledge of manufacturing and expertise in GMPs to assist companies and investment bankers seeking acquisitions in performing due diligence assessments.

Ms. Horr uses her data analysis and research skills to assist clients in a wide variety of topics that span from contaminants and additives as well as emerging public health, nutrition, and regulatory issues. She has additionally performed qualitative and quantitative safety evaluations of foods and hazards across the supply chain as well as individual processing operations using software tools to conduct hazard analyses and risk assessments.

Prior to joining Exponent, Ms. Horr worked in the food industry as a production supervisor at the largest frozen and par baked bakery in the United States. She managed the production of a variety of private label and general frozen bread products. Her duties included managing production shifts, ensuring product quality, enforcing GMPs, reviewing and verifying production documentation and performing root cause analyses for food safety and quality issues.

Ms. Horr received a B.S. in Biological Systems Engineering from Virginia Polytechnic Institute and State University (2013), where she currently sits on the departmental Advisory Board, and an M.S. in Food Science, from University of Maryland (2019). During her undergraduate education she worked collaboratively as a team member in the design of a peanut processing facility outside of Kampala, Uganda. The design included equipment suggestions, building layout and the design of a Hazard Analysis and Critical Control Points (HACCP) plan. For her M.S. she utilized @Risk, predictive microbiology and quantitative microbial risk assessments to complete a thesis on the public health implications of *Escherichia coli* O157:H7 in U.S. grown cilantro. She has passed the Fundamentals of Engineering Exam and is an Engineer in Training (E.I.T).

Academic Credentials & Professional Honors

M.S., Nutrition and Food Science, University of Maryland, College Park, 2019

B.S., Biological Systems Engineering, Virginia Polytechnic Institute and State Univ, 2013

Licenses and Certifications

Certified Food Scientist (CFS)

Certified in Comprehensive Food Safety (CCFS)

Prior Experience

Production Supervisor, Maple Leaf Foods, 2013-2014

Professional Affiliations

International Association for Food Protection

National Environmental Health Association

Publications

Menzie, C.A., Horr, T., Kashuba, R., Kierski, M.W., Kulacki, K. J., McArdle, M.E., Ryan, S.F., and Taylor, A.A. 2024. Chapter 26: Emerging Frameworks and Tools for Environmental Risk Assessment. In. Paustenbach, Dennis J. Human and Ecological Risk Assessment, 3rd Edition. Wiley Professional, Reference & Trade. pp 977-1007.

Horr T, Pradhan AK. (2020). Evaluation of public health risk of *Escherichia coli* O157:H7 in cilantro. Food Research International: <https://doi.org/10.1016/j.foodres.2020.109545>

Horr T, Szanyi N. Scale up of a peanut processing plant in Uganda. Presented at the 2013 NABEC-ASABE Annual Meeting, Altoona, PA, June 17, 2013.

Project Experience

Risk Assessment

Evaluated the effectiveness of current United States Department of Agriculture (USDA) chicken surveillance programs for a foreign regulatory agency.

Evaluated the impacts of the presence of *Bacillus cereus* on non-sterile disposable wipes.

Evaluated the food safety impacts of a malfunctioning heating unit in an at home canning device on the delivery of a sufficient thermal treatment.

Evaluated the impacts of home refrigeration malfunctions/failures on the growth of pathogen and spoilage microorganisms as it relates to the overall safety of food consumed in the home.

FSMA/GMP/GFSI Compliance

Assisted international mushroom supplier in developing corrective and preventive action plan after the identification of *Listeria monocytogenes* including the development of standard operating procedures (SOPs), sanitation standard operating procedures (SSOPs) and an environmental monitoring program

Acted as expert and/or testifying expert in cases as they relate to GMP compliance and best industry practices for the production of food and dietary supplements

Evaluated several mushroom growing facilities for adherence to current and future requirements of cGMPs and FSMA as part of a due diligence audit.

Evaluated an olive oil facility on a Native American reservation for adherence to cGMPs, FSMA and GFSI requirements in preparation for GFSI audit.

Performed surprise GMP inspections for a ready-to-eat (RTE) food company at four different locations.

Performed surprise GMP inspections for a cosmetic company at two different locations.

Cosmetics and Personal Care Products

Conducted health hazard evaluations of various microbial contaminants in a personal care products.

Developed and monitored the implementation of a corrective and preventive action plan for a cosmetic firm linked to a *Burkholderia cepacia* outbreak.

Performed due diligence evaluation of international cosmetic ingredient company.

Over-the-counter Drugs

Assisted in the defense of a hand sanitizer company against an allegation of false advertisement regarding labeling claims.

Reviewed labels and advised clients on compliance with the tentative monograph for consumer antiseptics as well as compliance with the temporary guidance during the Covid-19 Pandemic.

Warehousing

Determined the safety and salvage value of many ingredients, foods, beverages, drugs, pet foods, and other consumer products held at ambient, refrigerated, or frozen temperatures that were exposed to a variety of adverse conditions, including: fire, ammonia leaks, flooding, and power loss.

Investigated insect and rodent infestation of a variety of warehoused products including pet food, dietary supplements, over-the-counter drugs, nuts, etc.

Evaluated the good warehousing practices (GWPs) of a variety of warehouses housing ingredients, foods, beverages, dietary supplements, and other consumer products held at ambient, refrigerated, or frozen temperatures in relation to insurance and litigation matters.

Claim Substantiation

Developed a testing protocol to support client's submission of data to The National Advertising Division (NAD) to support the use of specific product claims.

Root Cause Analysis

Performed a root cause analysis for an international bakery/confectionary, to determine the likely cause of a reoccurring Salmonella contamination. Identified likely vectors, harborage sites and dissemination routes and recommendations to prevent further occurrence.

Performed a root cause analysis for an international brewery, to determine the likely cause of glass contamination. Evaluated likely sources of glass, areas it could be introduced in the production process and identified gaps in security. Provided recommendations to prevent further and future occurrences.

Identified the likely cause of darkening of a blanched potato ingredient used in a refrigerated finished product and offered recommendations to prevent further occurrence.

Evaluation and Development of Food Safety Systems

Evaluated snack food and dry dairy ingredient operations in the U.S. to assess the current state of their food safety and quality systems for a venture capital firms. Advised clients on prioritized areas for improvement.

Evaluated airline commissary operations in the U.S. to assess the current state of their food safety and quality systems after receiving an FDA 483. Advised client on areas to prioritize for corrections and improvements and provided follow up evaluations on additional locations.

Incident Response/Product Disposition

Performed a health hazard evaluation to determine if mold species found on paper towels posed a potential health risk.

Performed a health hazard evaluation to determine potential health risks of Pseudomonas spp. in an over-the-counter acne medication.

Conducted a health hazard evaluation of Bacillus cereus in eye shadow.

Investigated a mouse and pest infestation of pecan pieces stored in a warehouse.

Legal and Insurance Support

Served as insurance and litigation consultant and testifying expert in the following areas:

- Regulatory compliance
- Good Manufacturing Practices (GMPs)
- Good Warehousing Practices (GWPs)
- Dietary supplements
- Baby Foods
- Ready-to-Eat foods

- Baked goods and confections
- Dairy products
- Dairy alternatives
- Produce
- Fish and seafood
- Meat and Poultry
- Foreign material contamination
- Filth and adulteration
- Listeria monocytogenes
- Salmonella
- Escherichia coli O157:H7
- Hepatitis A virus

Advisory Appointments

Advisory Board for Virginia Tech's Department of Biological Systems Engineering 2022 - current