



Model HACCP Plans (September 2020)

Shrimp (Wild), Cooked, Frozen
Shrimp (Farm-raised) Raw, Frozen
Fish Sticks, Breaded and Frozen
Wholesale/Distribution of Histamine Fish
Oysters (Shucked)
Oyster (Shellstock)
Trout (Farm-raised), Raw, Frozen

Fresh Tuna Loins
Wild Salmon Sushi Rolls
Hot Smoked Salmon, Reduced-Oxygen Packed
Tilapia (Farm-raised), Fresh and Frozen
Wholesale/Distribution/Warehouse (short version)
Wholesale/Distribution/Warehouse (long version)

The SHA Editorial Committee has developed a number of extra Model HACCP Plans that can be used during the basic three-day HACCP course or the Segment Two HACCP one-day course. These models are intended to help participants understand the basic principles of HACCP by going through the process of developing their own Hazard Analysis and HACCP Plan using the most current recommendations in the FDA *Fish and Fishery Products Hazards and Controls Guidance* (4th edition, 2020) (<https://www.fda.gov/food/seafood-guidance-documents-regulatory-information/fish-and-fishery-products-hazards-and-controls>).

This “hands-on” portion of the HACCP course is critical to the overall understanding of the participants. As illustrated during Train-the-Trainer courses, instructors should use these models during workshops to help participants determine hazards and preventive controls of seafood products and processes. This will help illustrate the reasoning that will be required for HACCP-trained individuals to develop successful HACCP programs for their own products or processes. Remember, these models are intended to be used for teaching purposes only and may not reflect the actual commercial steps used by the industry participants in your class.

While these models are an extremely useful tool for teaching development of a HACCP plan, they can also be used for teaching and illustrating other points or “teachable moments” when the students present their final hazard analysis and HACCP plan. For example, *if* the curriculum example (fresh mahi-mahi fillets) in the training manual was changed to include use of barrier film and buried in ice, *then* the instructor could ask about what additional food safety hazards may be present and what measures would have to be employed to document control of food safety hazards that are reasonably likely to occur in modification of the fresh mahi-mahi model.

The models can provide opportunities to illustrate other teaching points such as 1) how changing one or more product characteristics can impact the hazard analysis or HACCP plan development or 2) how different control strategies (critical limits, corrective actions) may be selected if validated. Possible examples are:

1. Cooked Shrimp – What if shrimp are cooked and distributed fresh? How would this affect your hazards analysis and HACCP plan? The product/process description for this model calls for packaging in a non-breathable film. Therefore the answer will involve additional controls for a fresh seafood item in reduced packaging as addressed in Chapter 13 of the FDA Guide.
2. Salmon Sushi Rolls – What if aquaculture salmon were fed a non-fish diet (pellets)? How would this affect the identification of potential hazards and the HACCP plan? The original model used wild salmon, so the answer involves controls for aquacultured salmon with particular attention for aquaculture drug use as explained in the *FDA Guide*, Chapter 11.
3. Hot Smoked Salmon – What if salmon was replaced with mackerel? How would this affect the hazard analysis and HACCP plan? The answer involves controls for histamine prone fish species, mackerel that are explained in the *FDA Guide*, Chapter 7.
4. Warehouse Distribution Facility – How would the purchase of aquaculture product directly from the aquaculture facility or frozen shrimp treated with sulfites affect the hazard analysis and HACCP plan? The respective answers involve controls for farm-raised species subject to aquaculture drugs (Chapter 11) and labeling for potential harmful food intolerance substances (sulfites) as explained in the *FDA Guide*, Chapter 19.

There may be other opportunities for meaningful discussion as students offer other ways to present their HACCP plans. Be flexible and use these discussions as learning and teaching opportunities in your class.