November 2022

SHA Seafood HACCP Basic Virtual Training Course Protocol

1. **Title**
   Seafood HACCP Alliance (SHA) Seafood HACCP Basic Virtual Training Course Protocol

2. **Purpose/Objectives/Goals**
   In response to the COVID-19 pandemic and heightened concern for spread through person-to-person contact, the Seafood HACCP Alliance (SHA) has instituted a Protocol for conducting Basic HACCP training courses through virtual learning platforms. The following Protocol outlines the requirements for Basic HACCP training course equivalency when conducting the training through virtual learning platforms.

3. **Course Equivalency Criteria**

3.1. **Course registration and Supervisory Trainer (ST)**

3.1.1. In a virtual learning space, there will be new administrative, electronic monitoring tools used to assure participant activity during the course. These should ensure course content and structure is equivalent to any in-person Basic HACCP training course.

3.1.2. All virtual training must have at least one ST present for the duration of the training and a technical administrator (TA), see section 3.4.

3.1.3. The ST (or their designated person) is responsible for registering the course as a Virtual Basic HACCP Training course with AFDO prior to conducting the training.

3.1.4. All virtual training registered with AFDO must follow the Protocols outlined in sections 3.2 - 3.10 below to meet the minimum qualifications for an equivalent in-person Basic HACCP training course.

3.2. **Participant Identification and Verification**

3.2.1. All participants must have video and audio connections for the duration (16.5 contact hours for the Basic Course) of the training (including 30-minute tech check and troubleshooting session, but excluding breaks) to ensure required course contact times are met

3.2.1.1. Participants must ensure they have sufficient capabilities to participate in virtual HACCP training (video and audio connection, broadband internet, appropriate virtual platform software etc.)

3.2.1.2 Participants must be familiar with virtual learning space and ensure they can access the necessary document sharing platforms prior to attending the training.

3.2.1.3 A 30-minute technical check and troubleshooting session is required, in addition to the 16.0 (Basic) contact hours. This is also a good time to ensure all participants have the required training materials (curriculum and Hazards Guide).

3.2.2. Virtual training may not exceed 20 participants. There MUST be a qualified trainer for every 8 participants.

3.3. Participant Engagement

3.3.1. Trainers must be able to actively engage all participants for the duration of the virtual training. Trainer(s) must implement targeted strategies to ensure engagement in the virtual environment. The following should be considered and made clear in the course application:

3.3.1.1. What virtual learning platform will be used?

3.3.1.2. How will the trainer(s) ensure the following interactions?

3.3.1.2.1. Trainer and participants

3.3.1.2.2. Participants and other participants

3.3.1.2.2.1. Participants and course materials (i.e. training curriculum and FDA Hazards Guide)

3.4. **Student Participation**

3.4.1. All virtual courses must have a Supervisory Trainer and a Technical Administrator (TA).

3.4.1.1. The TA will ensure all students are meeting the training requirements (audio/video) and will monitor the online platform for questions/issues.

3.4.1.2. Technical administrator MUST be someone other than the ST but can be a co-trainer.

3.4.1.3. Any students who are not present for any portion of the training, for any reason, are not eligible for training certificates through AFDO unless the ST deems it necessary to accommodate additional contact time with those individuals due to extenuating circumstances.

3.4.1.4. Additional contact time should occur within one week of the training date.

3.4.2. Supervisory trainers must clearly outline specific procedures/techniques that will be implemented to ensure active participation from students. A recommended/example approach is provided below.

3.4.2.1 Knowledge assessments can be used throughout the virtual training to ensure the students are engaged, listening, and comprehending course content. Example assessments can be found in the virtual course agenda template.

3.4.2.2 ST can engage in a "roll-call" in order to ensure participant attendance throughout the training. It is recommended that this occurs before starting and after each break and breakout session.

3.4.2.3 If not using knowledge assessment and roll-call, how will you ensure active participation and learning are taking place?

3.5. **Group Activities**

3.5.1. Group work is an integral component of the Basic HACCP training course learning objectives. The ST must assure their virtual learning platform can accommodate group work and collaboration among participants.

3.5.2. The virtual learning platform must have the ability to break students into groups or minimize class size to accommodate a single group (no more than 8 participants). Each breakout group MUST have a qualified trainer present at all times.

3.5.2.1. How will trainer(s) ensure all students are participating in group activities?

3.5.2.2. How will participants collaborate on developing the product description form, hazard analysis form, and HACCP plans?

3.5.2.3. Will a file-sharing platform, such as Google documents be used?

3.5.2.4. How will group presentations be conducted?

3.6. **Contact Time**

3.6.1. Contact time for virtual training must meet the same 16.0 (Basic HACCP) contact hours minimum (plus the 30-minute technical troubleshooting session) as required by the in-person Basic HACCP training course. Adjustments to course contact hours must be clearly justified and approved by AFDO prior to scheduling the virtual course.

3.7. **Course Evaluation**

3.7.1. All virtual courses shall conclude with a course evaluation, which must be shared with AFDO upon completion. While supervisory trainers are responsible for developing their own course evaluation, the following questions MUST be included and submitted with course completion paperwork. Additional evaluation questions are at the discretion of the Supervisory Trainer.

3.7.1.1. On a scale of 0-10 (0 = Not at all effective, 10 = Extremely effective) how effective did you find this virtual learning platform for this training?

3.7.1.2. How confident were you about conducting a Hazard Analysis BEFORE attending this training (0 = Not at all confident, 10 = Extremely confident)?

3.7.1.3. How confident were you about conducting a Hazard Analysis AFTER attending this training (0 = Not at all confident, 10 = Extremely confident)?

3.7.1.4. How comfortable were you with developing a HACCP plan BEFORE attending this training (0 = Not at all comfortable, 10 = Extremely comfortable)?

3.7.1.5. How comfortable were you with developing a HACCP plan AFTER attending this training (0 = Not at all comfortable, 10 = Extremely comfortable)?

3.8. **Training Audits and Recordings**

3.8.1. This virtual training option is only available for instructors who have taught at least 2 in-person Basic HACCP courses. AFDO reserves the right to arrange audits (or request recorded training sessions) to monitor trainers and registered courses eligible for SHA/AFDO Certificates of Course Completion. Domestic and international course audits may be arranged through the AFDO Seafood Committee Chair or Co-Chairs.

3.8.2. If a training audit/recording is requested by AFDO, Trainers should include the following language in their registration and confirmation emails to participants: **"This training will be recorded for training and/or auditing purposes."**

3.9. **Training Materials**

3.9.1. All relevant Basic training materials are required for the virtual course. STs must ensure the following required materials are used for the training:

3.9.1.1. Participants must have a *physical* copy of the most recent version of the FDA Fish and Fishery Products Hazards and Controls Guidance

3.9.1.2. The SHA Basic HACCP PowerPoint slides must be used to deliver course content and review.

3.9.1.3. The SHA official models must be used for group activities; this includes the **XYZ Seafood Company Mahi-mahi model**. Additional seafood-specific hazards unique to the audience, product types, or region may also be used.

3.9.1.4. Course participants must have access to a physical or digital copy of the SHA Seafood HACCP training curriculum (Blue Book).

3.10. Course completion paperwork

3.10.1. Upon completion of a virtual Basic training the following course paperwork must be

submitted to AFDO for review and issuance of certificates.

3.10.1.1.1. Student information sheet, consider how these will be collected when using a virtual learning space.
3.10.1.1.2. Seafood HACCP Instructor Worksheet (Excel spreadsheet)
3.10.1.1.3. Course evaluation (Section 3.7)
3.10.1.1.4. Course invoice
3.10.1.1.5. Recording of the course

Ultimately, the virtual Basic HACCP training course should be equivalent in quality, content, and contact time (plus 30-minute technical check and troubleshooting session) as any in-person Basic HACCP training course. Major deviations from in-person Basic HACCP training course Protocols include:

- Limitations on course size, maximum of 20 participants.
- Daily class time cannot be greater than 5 hours.
- Minimum of 4-day training period.
- Must include adequate breaks to restore attention and relieve mental strain and fatigue. At least one Supervisory Trainer and a Technical Administrator are required for all virtual trainings. An additional qualified trainer (for every 8 participants) is required to be present for the duration of the training.
- All students must participate in a mandatory technical troubleshooting session.
- All students must have internet connectivity and audio/video capabilities to participate.
- All students must have a computer with a physical keyboard to participate. Students may not access the virtual learning platform from a cell phone.
- Students must participate individually from a computer with a physical keyboard. Groups may NOT share a single computer without providing justification.
- Required evaluation questions must be submitted with course completion paperwork
- Trainer(s) must implement procedures/techniques that will ensure active participation from students (i.e. Knowledge assessments and roll call).

Other items of Note: The SHA-AFDO HACCP and SCP Training Protocol (October 2019 Edition) will still be followed at all times, including:

- Must abide by topical contact times listed in the Appendix I draft Agenda of this protocol; all applicants MUST provide an SHA Hours Verification form to ensure time per topic is being met.
- Projected costs of the course and registration fees must be consistent with SHA/AFDO's intention to minimize costs for training.
- Failure to conduct training according to the virtual training protocols may be cause for revocation of course registration or training qualification.
- All Trainers must be Seafood HACCP Qualified Trainers. Supervisory Trainers must be persons that have completed the SHA/AFDO Train-the-Trainer course. Assistant Trainers without a current (dated 2011 or later) SHA/AFDO Train-the-Trainer certificate number must provide a CV to demonstrate his or her qualifications.
- Course audits may be conducted on virtual courses to assure instructors are following the established Protocols.

APPENDIX I: BASIC HACCP TRAINING COURSE AGENDA
(16.5 Contact Hours Minimum with SHA HACCP Training Manual and FDA Hazards Guide)

NOTE: The agenda below provides guidelines for time per topic. The standard agenda must be a minimum 16.5 contact hours. Supervisory Trainers must submit a course agenda and SHA Hours Verification form with their Domestic or International Course Registration Form. When submitting the agenda with the course application, provide actual proposed times and show that the course is a minimum of 16.5 contact hours.

It is required that the course be taught over at least a 4-day period. The times allotted to each section are to allow for sufficient learning opportunities. However, there is flexibility in the design based on the nature of the audience (i.e., homogeneous audience by species or processing methods or very small class size). Regardless of the format of the course, allow 3-4 contact hours from the 16.5 hours, for the practical exercise. One useful alternative approach to stimulate participation is to arrange the work sessions following the respective instruction, e.g., work session on hazard analysis to follow the lecture on Determining Critical Control Points, and the work session on developing the HACCP Plan following the lecture on Record-Keeping. The example agenda below is set up in this way. Instructors may also elect to supplement information in Chapter 3 (Seafood Safety Hazards) with additional seafood-specific hazards unique to the audience, product types, or region.

Day 1 (210-335)

30-60 min TECHNOLOGY CHECK AND TROUBLESHOOTING

- Allow for some time to ensure all student can connect to the virtual platform and have adequate audio and video capabilities to participate.
- This is also a good time to ensure they have the required materials (Hazards Guide) and access to shared documents, if using.

15-20 min. ORIENTATION AND INTRODUCTION TO ALLIANCE COURSE AND HACCP

- Describe the purpose of the course
- Explain the relationship of the Alliance and AFDO
- Introduce the HACCP concept for food safety

60-90 min. OVERVIEW OF FDA SEAFOOD HACCP REGULATION

- Introduce the FDA seafood HACCP regulation and its format
- Discuss each of the elements of the regulation using the curriculum manual format

Break and Roll Call 10-20 Min

30-60 min. PREREQUISITE PROGRAMS

- Review programs that need to be in place before implementation of a HACCP program
- Describe the relationship between Good Manufacturing Practices (GMPs), sanitation control procedures (SCPs), and HACCP
- Describe monitoring, corrections, and record-keeping requirements for 8 areas of sanitation in the FDA Seafood HACCP regulation
- Review examples of SCPs, monitoring, and records in curriculum manual
- Review other relevant regulatory requirements that may apply to the audience

60-75 min. SEAFOOD SAFETY HAZARDS

- Describe the general types of hazards including species-related hazards and process-related hazards
- Describe the species and process related seafood safety hazards found in the FDA Hazards Guide with emphasis on:
    - What causes the seafood safety hazard
    - What seafood products and processes are affected by the hazard
    - How the hazard can be controlled (prevented, eliminated, or reduced to an acceptable level)

Knowledge Assessment 1 (See example questions at the end)

15-30 min. PRELIMINARY STEPS

- Introduce preliminary steps that must be completed prior to applying HACCP principles
- Introduce the XYZ Seafood Company model example to demonstrate preliminary steps

Day 2 (260-345)

30-45 min. REVIEW AND INTRODUCTION OF PRACTICAL WORK SESSIONS

- Divide students into groups of 5 people or less and select a Teaching Model for each group to work on.
- Teaching models are available from https://www.flseagrant.org/seafood-safety/seafood-haccp-training-and-education/

20-30 min. GROUP WORK SESSIONS ON PRELIMINARY STEPS

- Students review their assigned model and complete the product description forms.

90 min. CONDUCTING A HAZARD ANALYSIS

- Describe the steps in the Hazard Analysis process
- Introduce and describe the Hazard Analysis form
- Describe how to identify all potential species and process related hazards using the FDA Hazards Guide table in Chapter 3 of the Guide
- Describe how to determine what hazards are significant using information from the Hazard chapter in the FDA Hazards Guide and justify the decision
- Describe control measures for specific types of hazards
- Use the XYZ seafood model to illustrate how to conduct a hazard analysis using the FDA Hazard Guide

Knowledge Assessment 2 (See example questions at the end)

Break and Roll Call 10-20 Min

30-60 min. DETERMINING CRITICAL CONTROL POINTS

- Define critical control points (CCPs)
- Continue with teaching example to identify CCPs

- Discuss tools to help identify CCP including the FDA Hazards Guide and the 'Decision Tree'

90-120 min. GROUP WORK SESSIONS ON CONDUCTING A HAZARD ANALYSIS
Students identify all potential food safety hazards and complete the Hazard Analysis worksheet for their assigned model using the FDA Hazards Guide.

Day 3 (180-240 min)
Note: Instructors may want to break the Hazard Analysis work session up over two days and finish on Day 3 to keep each day within 4-5 hours.

45-60 min. ESTABLISHING CRITICAL LIMITS

- Define and list typical critical limits (CLs) using examples from the curriculum manual
- Introduce the HACCP Plan Form
- Describe control strategy options from the hazard chapters of the FDA's Hazards Guide
- Describe how to select one or more critical limits from a control strategy in Hazards Guide
- Discuss use of operating limits
- Use the XYZ seafood model to illustrate how to set up HACCP plan form and select a critical limit using the FDA Hazards Guide

Knowledge Assessment 3 (See example questions at the end)

45-60 min. CRITICAL CONTROL POINTS MONITORING

- Define and explain the purpose for monitoring
- Describe the 4 elements of a complete monitoring procedure
- Describe how to identify appropriate monitoring procedures for the critical limit option selected from the FDA Hazards Guide
- Use the XYZ seafood model to illustrate how to identify monitoring procedures using the FDA Hazards Guide

Break and Roll Call 10-20 Min

45-60 min. CORRECTIVE ACTIONS

- Define and explain need for predetermined corrective actions
- Explain and identify the components required for a complete corrective action procedure
- Describe how to identify appropriate corrective actions using the FDA Hazards Guide
- Use the XYZ seafood model to illustrate how to identify corrective actions using the FDA Hazards Guide

45-60 min. ESTABLISH VERIFICATION PROCEDURES

- Define and explain the need for verification procedures
- Explain types of verification procedures including: validation, routine and periodic verification
- Give examples of typical verification procedures needed including accuracy checks, calibration, testing

- Describe how to identify appropriate verification procedures using the FDA Hazards Guide
- Use the XYZ seafood model to illustrate how to identify verification procedures using the FDA Hazards Guide

Day 4 (225-270 min)

45-60 min. RECORD-KEEPING PROCEDURES

- Define and explain the need for record-keeping procedures
- Explain types of records needed and the record-keeping requirements in the FDA regulation
- Review examples of types of records in the curriculum
- Describe how to identify appropriate record-keeping procedures using the FDA Hazards Guide
- Use the XYZ seafood model to illustrate how to identify record-keeping procedures using the FDA Hazards Guide

60-90 GROUP WORK SESSIONS ON DEVELOPING HACCP PLANS

- Students complete the HACCP Plans for the assigned models based on their Hazard Analysis with instructor facilitation as necessary

Break and Roll Call 10-20 Min

90 min. GROUP PRESENTATIONS

- Each group presents the results of their Hazard Analysis and HACCP Plan with comments and discussion from students and instructors

30 min. REVIEW, Q&A, AND ADJOURN

RECOMMENDATIONS: The agenda MUST include breaks and/or lunches to allow the students to rest and better concentrate on the training. Although the required topics must be taught, they can be arranged to best suit the audience and situations. Experience has shown that the first portion should proceed through Critical Control Points then conduct the practical exercises for completing the Hazard Analysis. This is followed by proceeding through the remainder of the curriculum and concluding with a final exercise for developing the HACCP plans. It is recommended the course be taught over at least 4-days and no more than 5 contact hours per day. Courses held within less than 4 days and/or less than 16.5 contact hours require written justification detailing mitigations and equivalency to the recommended protocol.

Knowledge Assessments (KA) can be used throughout the training to gauge participant understanding of the content and actively engage participants in the virtual setting. Example KA's are provided below and times for implementing them are suggested in the above example agenda.

Ex: Knowledge assessments (KA) 1: Seafood Hazards

1. Where in the hazards guide can you find more information on the hazard of allergens?
    a. Chapter 7
    b. Chapter 9
    c. Chapter 12
    d. Chapter 19

2. Where in the hazards guide can you find more information on the hazard of *Clostridium botulinum* toxin formation?
    a. Chapter 7
    b. Chapter 9
    c. Chapter 13
    d. Chapter 19

Ex: Knowledge assessment (KA) 2: Identifying Hazards

1. Which of the following hazards **IS** a concern in Bluefish (*Pomatomus saltatrix*)?
    a. Parasites
    b. Natural Toxins
    c. Environmental Chemicals
    d. Aquaculture Drugs

2. Which of the following hazards **IS** a concern in Cod (*Gadus macrocephalus*)?
    a. Environmental Chemicals
    b. Scombrotoxin (Histamine)
    c. Natural Toxins
    d. Parasites

Ex: Knowledge assessment (KA) 3: CCP's

1. On what page of the hazards guide can you find a table of potential control strategies for aquaculture drugs?
    a. Page 193
    b. Page 201
    c. Page 245
    d. Page 297

2. On what page of the hazards guide can you find a table of potential control strategies for glass inclusion?
    a. Page 385
    b. Page 398
    c. Page 245
    d. Page 297