



SEPTEMBER 2017

## Commercial Processing Example: *Shrimp (farm-raised), Raw Frozen*

(based on Producer/Supplier Guarantees)

**Example:** This is a Special Training Model for illustrative purposes only. The SHA models are based on guidance contained in FDA's *Fish and Fishery Products Hazards and Controls Guidance* (4<sup>th</sup> Edition, 2011) and additional information available since the 2011 edition. It was produced by the National Seafood HACCP Alliance (SHA) strictly as an example for training. This model does not represent a specific requirement or recommendation from FDA. Keep in mind that this model may not apply to all situations.

### Narrative

<b>Company</b>	ABC World Shrimp Company, Anywhere, World
<b>Product Market Name</b>	Farm-raised shrimp (frozen), species <i>Litopenaeus vannamei</i> or <i>Penaeus monodon</i>
<b>Source of Fishery Product</b>	Farm-raised shrimp (aquaculture) are obtained directly from farmed harvest. The sources can be from <b>Integrated Farms</b> (owned and operated by ABC World Shrimp Company), or <b>Non-Integrated Farms</b> (owned and operated by a separate or independent company). The harvest is collected by a <b>Producer</b> (individual farm) or a <b>Supplier</b> (agent or broker gathering shrimp from one or more farms) for direct delivery to one processing operation.
<b>Describe the Food Product</b>	Raw, headless, shell-on, IQF (individually quick frozen) shrimp
<b>Method of Receiving, Storage and Distribution</b>	Received in ice and stored in ice before further processing
<b>Finished Packaging Type</b>	Frozen shrimp packed in oxygen permeable bags held in boxes
<b>Intended Use and Consumer</b>	Frozen storage prior to thawing for cooked consumption by the general public

### Description of Process

**Receive raw shrimp** – Commercial lots of fresh whole raw shrimp (head-on, not previously frozen) are obtained directly from various farms. After harvest, the shrimp are treated with sulfiting agents (i.e., sodium bisulfite and/or sodium metabisulfite dips) to inhibit black spot formation (melanosis). The shrimp are held in ice and delivered in refrigerated containers within 48 hours after harvest. At receiving, the incoming lots of shrimp can be identified and assigned batch numbers according to farm source, date of harvest, and segregation plan for processing. The iced product is temporarily held in refrigeration prior to further processing. Receiving time from delivery until temporary iced storage in refrigeration is less than 30 minutes. **NOTE: All incoming lots of shrimp must be accompanied with written and signed guarantees (letters of assurance) declaring compliance with ABC World**

#### ***Shrimp Company's* most current "Guidelines for Farmed Shrimp."**

**Receive packaging materials** – Packaging materials are delivered in clean, well-maintained and covered vehicles. All materials are checked for integrity and specifications before assigning lot codes for future use.

**Dry-store packaging materials** - All accepted materials are held in separate dry storage areas according to assigned lot codes.

**Deicing, Deheading and Grading** - The iced, whole shrimp are placed in a hopper of cold flowing water to remove the ice prior to deheading by hand (removing the shrimp heads to yield shell-on tails). The resulting shrimp tails are mechanically sorted (graded) by size. The total time for

deheading and sorting is less than 60 minutes per assigned batch and ice is used to control product temperature.

**Refrigerated storage** - The graded shrimp tails are placed in insulated plastic totes with fresh ice and moved to refrigerated storage. As necessary, ice is refreshed daily by topping the totes. Shrimp may remain in refrigerated storage less than 48 hours prior to further processing.

**Freeze** – The refrigerated shrimp move by conveyor into a spiral freezer, which is a continuous freezing process that typically takes no more than 20 minutes.

**Packing (Weigh/Pack/Seal/Label/Case)** – After freezing, the finished product is conveyed to the packing station where the product is weighed, packed, and labeled in an automated packaging line. A computerized system weighs the correct amount of product into plastic oxygen

permeable bags. Bagged product is placed in pre-labeled boxes (shrimp name and sulfite ingredient statements). Each primary packaged box is identified by the production date code, batch number and proper ingredient labeling. All primary packages are master-cased as required by the customer. Each master case is marked with identical production date codes and batch numbers as used on the primary packages. As each master case is packed, it is palletized immediately in accordance with customer or company criterion. This is a short step that typically takes less than 30 minutes.

**Frozen Storage** - All finished product pallets are placed immediately into frozen storage. All finished product inventory is distributed on a first-in/first-out basis.

## DEFINITIONS

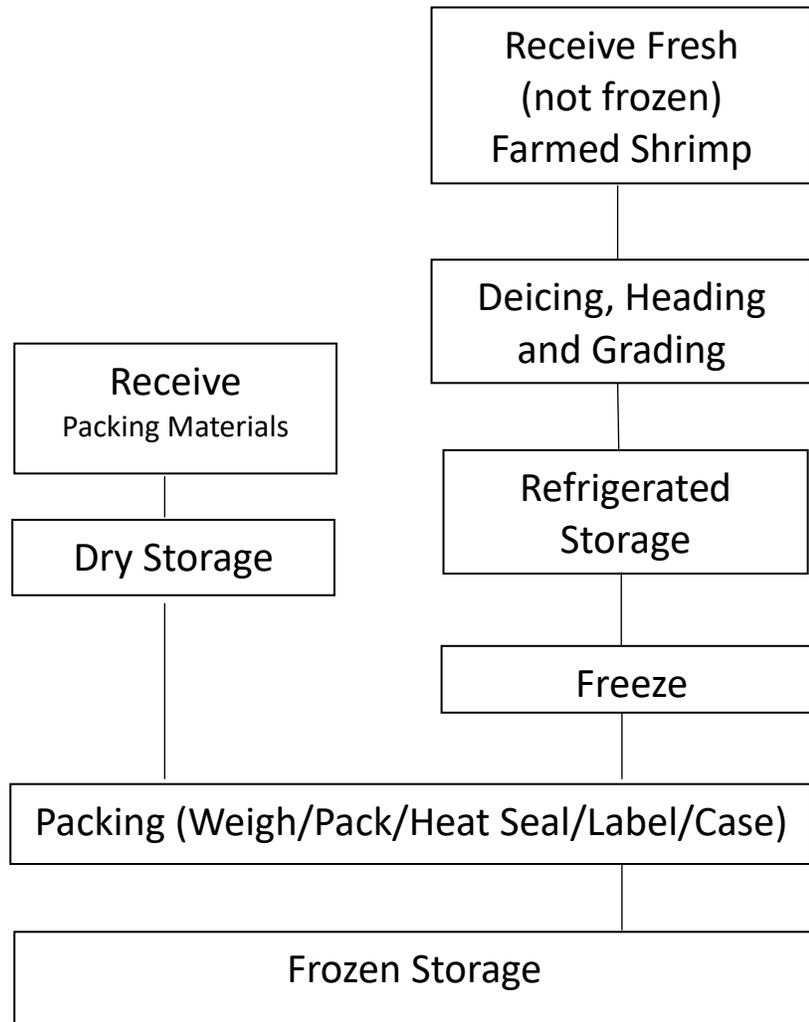
These terms are defined to clarify the content and intentions of the entire model HACCP plan.

**ABC World Shrimp Company's "Guidelines for Farmed Shrimp"** are contained in an appendix for the HACCP program describing requirements for assurances to prevent potential food safety hazards involving environmental chemical contaminants and illegal use of drugs and other chemical treatments. [SPECIAL NOTE: The "Guidelines for Farmed Shrimp" are simply an example for training purposes. It does not represent any specific requirement or directive issued or mandated by the U.S. Food and Drug Administration (FDA), but it does provide information that would support compliance with the FDA's prevailing Seafood HACCP regulations.]

**Farm Lot** is defined as the amount of shrimp involved in 'one harvest or ponds from a single farm' as designated by the supplying farm (**Producer**) or the agent/broker (**Supplier**) collecting shrimp from one or more farms. The designated '**Farm Lot**' can be further distinguished from a '**batch**' as assigned by the processing operations for internal tracking of the shrimp through processing steps.

# ABC World Shrimp Company

## Process Flow Diagram - Raw Frozen Shrimp



## Commercial Processing Example: *Shrimp (farm-raised), Frozen*

**Example:** For Illustrative Purposes Only. Models are based in current guidance contained in FDA’s *Fish and Fishery Products Hazards and Controls Guidance*. Keep in mind that this model does not apply to all situations.

Description	Company: ABC World Shrimp Company																					
	Where Product Is Purchased			How Product Is Received				How Product Is Stored				How Product Is Shipped				How Product is Packaged		How Product Will Be Consumed			Intended Consumer	
	From Fisherman	From Fish Farm	From Processor	Refrigerated	Iced	Frozen	Shelf-Stable	Refrigerated	Iced	Frozen	Shelf-Stable	Refrigerated	Iced	Frozen	Shelf-Stable	Air Packed	ROP	Raw to be cooked	Raw, RTE	Cooked RTE	General Public	At-Risk Population
<b>Common Name:</b> <i>Shrimp (farm-raised)</i> <b>Market Name:</b> <i>Shrimp</i> <b>Scientific Name:</b> <i>Litopenaeus spp.</i>		√			√				√	√				√				√			√	

**Potential Food Safety Hazards:** All potential food safety hazards based on the product description and processing flow diagram associated with this product and process are identified using Tables 3-3 (species-related hazards) and 3-4 (process-related hazards) in the FDA *Hazards and Controls Guidance* (2011 edition). Processors should be aware that additional guidance may be periodically posted on FDA Seafood HACCP websites, and additional hazards not covered by this guidance may be relevant to certain products under certain circumstances.

The FDA recommendations indicate 6 potential hazards that are species- or process-related. The hazard analysis addressed all hazards pertinent to the current processing operations.

1. Aquaculture Drugs (residuals from illegal or improper application) – (species-related, chapter 11)
2. Environmental Chemicals (contaminants) – (species-related, chapter 9)
3. Food Additives (use of sulfites to control melanosis) – (process-related, chapter 19)
4. Food Allergens (natural; no additional ingredients) – (process-related, chapter 19)
5. Metal Inclusion (if used in packaging) – (process-related, chapter 20)

**FDA listed hazards NOT INCLUDED:**

6. Pathogenic bacteria growth (process-related, chapter 12) was not included because there is no knowledge for intent to consume raw shrimp. Cooking is a kill step, and the product is intended to be cooked before consumption.

**SANITATION CONTROL PROCEDURES (SCP)** are monitored throughout all processing steps and the daily SCP records accompany the HACCP records.

## Hazard Analysis Worksheet

<b>Firm Name:</b> <i>ABC World Shrimp Company</i>	<b>Finished Product Description:</b> <i>Raw Farmed Shrimp</i>
<b>Firm Address:</b> <i>Anywhere, USA</i>	<b>Method of Storage &amp; Distribution:</b> <i>Frozen</i>
<b>Signature/Date:</b> < >	<b>Intended Use &amp; Consumer:</b> <i>To be cooked product consumed by the general public</i>

(1) Processing Step	(2) List all potential <b>food safety hazards</b> that could be associated with this product and process.	(3) Is the potential food safety hazard <b>significant</b> (introduced, enhanced or eliminated) at this step? <b>(Yes or No)</b>	(4) <b>Justify the decision</b> that you made in column 3	(5) What <b>control measure(s)</b> can be applied to prevent this significant hazard?	(6) Is this step a <b>Critical Control Point?</b> <b>(Yes or No)</b>
<b>Receive Packaging Materials</b>	Aquaculture drugs	No	No prior exposure to aquaculture drugs		
	Environmental chemicals	No	No prior exposure to environmental chemicals		
	Food additives	No	No prior exposure to food additives		
	Food allergens	No	Packaging materials do not introduce allergens		
	Metal inclusion*	No	Not reasonably likely in packaging materials		
<b>Dry Storage</b>	Aquaculture drugs	No	No prior exposure to aquaculture drugs		
	Environmental chemicals	No	No prior exposure to environmental chemicals		
	Food additives	No	No prior exposure to food additives		
	Food allergens	No	Dry storage does not introduce allergens		
	Metal inclusion*	No	Not reasonably likely during dry storage		
<b>Receiving Raw Farmed Shrimp</b>	Aquaculture drugs	Yes	Illegal or improper level of drug residues may be in farm-raised shrimp	All deliveries must be accompanied with written and signed Producer or Supplier guarantee	Yes

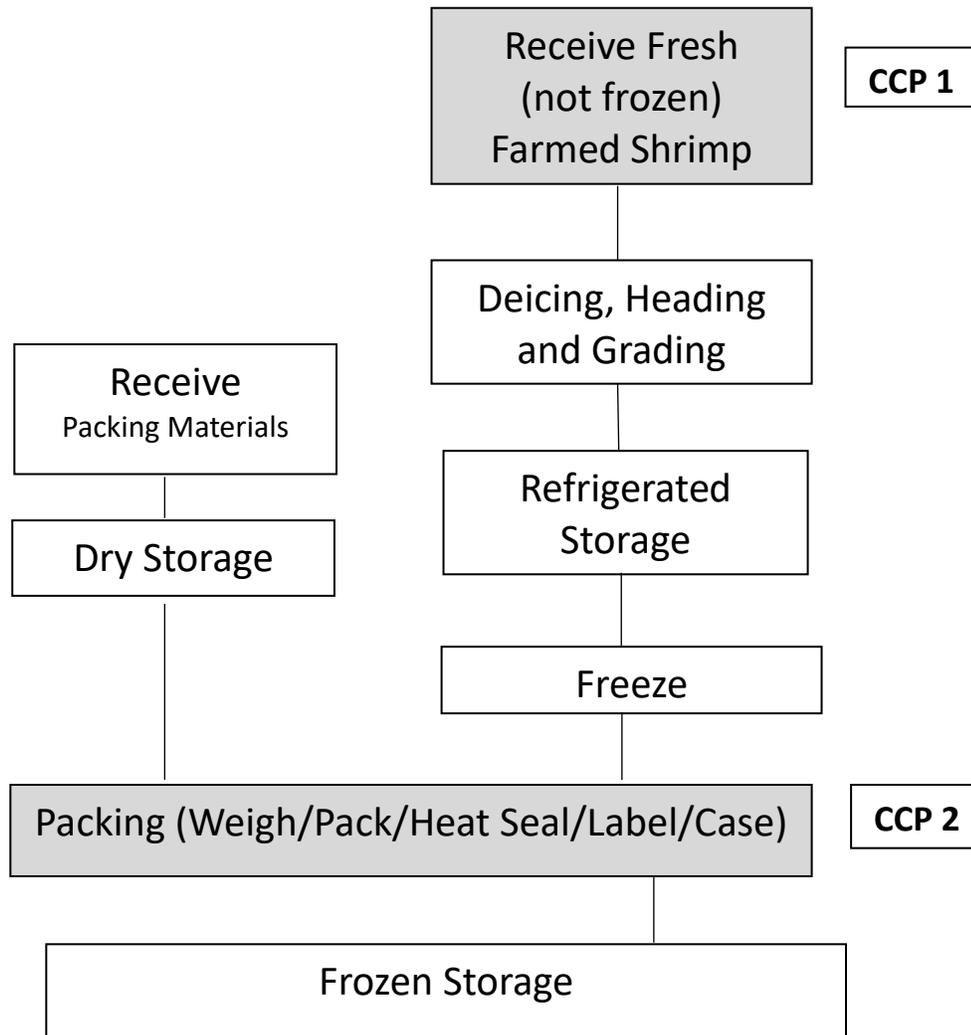
(1) <b>Processing Step</b>	(2) List all potential <b>food safety hazards</b> that could be associated with this product and process.	(3) Is the potential food safety hazard <b>significant</b> (introduced, enhanced or eliminated) at this step? <b>(Yes or No)</b>	(4) <b>Justify the decision</b> that you made in column 3	(5) What <b>control measure(s)</b> can be applied to prevent this significant hazard?	(6) Is this step a <b>Critical Control Point?</b> <b>(Yes or No)</b>
	Environmental chemicals	Yes	Chemical contaminants can occur in the farm environment	All deliveries must be accompanied with written and signed Producer or Supplier guarantee	Yes
	Food additives –sulfites	Yes	Sulfites are used on raw farmed shrimp and can be present on shrimp at receiving	Product label at Packing step will identify sulfites	No
	Food allergens	Yes	Shrimp is a potential food allergen; hazard is introduced at receiving	Product label applied at Packing step will identify 'shrimp'	No
	Metal inclusion*	No	Not likely to occur at this step		
<b>Refrigerated Storage</b>	Aquaculture drugs	No	Not introduced, enhanced or controlled at this step		
	Environmental chemicals	No	Not introduced, enhanced or controlled at this step		
	Food additives	No	Additional food additives including sulfites not introduced or enhanced at this step		
	Food allergens	Yes	Shrimp is a potential food allergen; hazard introduced at receiving	Product label applied at Packing step will identify 'shrimp'	No
	Metal inclusion*	No	Introduction of metal fragments not reasonably likely at this step		
<b>De-Ice/Dehead/ Size Grade</b>	Aquaculture drugs	No	Not introduced, enhanced or controlled at this step		
	Environmental chemicals	No	Not introduced, enhanced or controlled at this step		
	Food additives	No	Additional food additives including sulfites not introduced or enhanced at this step		
	Food allergens	Yes	Shrimp is a potential food allergen; hazard introduced at receiving	Product label applied at Packing step will identify 'shrimp'	No
	Metal inclusion*	No	Introduction of metal fragments not reasonably likely at this step		
<b>Freeze</b>	Aquaculture drugs	No	Not introduced, enhanced or controlled at this step		

(1) <b>Processing Step</b>	(2) List all potential <b>food safety hazards</b> that could be associated with this product and process.	(3) Is the potential food safety hazard <b>significant</b> (introduced, enhanced or eliminated) at this step? <b>(Yes or No)</b>	(4) <b>Justify the decision</b> that you made in column 3	(5) What <b>control measure(s)</b> can be applied to prevent this significant hazard?	(6) Is this step a <b>Critical Control Point?</b> <b>(Yes or No)</b>
	Environmental chemicals	No	Not introduced, enhanced or controlled at this step		
	Food additives	No	Additional food additives including sulfites not introduced at this step		
	Food allergens	Yes	Shrimp is a potential food allergen; hazard introduced at receiving	Product label applied at Packing step will identify 'shrimp'	No
	Metal Inclusion*	No	Introduction of metal fragments not reasonably likely at this step		
<b>Packing Step Weigh/Pack/Seal/Label/Case</b>	Aquaculture drugs	No	Not introduced, enhanced or controlled at this step		
	Environmental chemicals	No	Not introduced, enhanced or controlled at this step		
	Food additives	Yes	Shrimp contain sulfites; introduced at Receiving	Finished product label must declare "sulfites" on unit package label	Yes
	Food allergens	Yes	Shrimp is a potential food allergen introduced at Receiving step	Finished product label will contain the word "shrimp" on the unit package label	Yes
	Metal inclusion*	No	Introduction of metal fragments not reasonably likely at this step		
<b>Frozen Storage</b>	Aquaculture drugs	No	Not introduced, enhanced or controlled at this step		
	Environmental chemicals	No	Not introduced, enhanced or controlled at this step		
	Food additives-sulfites	No	Controlled at Packing Step		
	Food allergens	No	Controlled at Packing Step		
	Metal inclusion*	No	Introduction of metal fragments not reasonably likely at this step		

\* Metal Inclusion was considered in the Hazard Analysis based on recommendations in FDA's *Fish and Fishery Products Hazards and Controls Guidance* (4th Edition, 2011), but the operations at ABC World Shrimp Company do not include any steps that would introduce metal fragments. Thus, Metal Inclusion was not considered a significant food safety hazard that required a CCP.

# ABC World Shrimp Company

## Process Flow Diagram - Raw Frozen Shrimp



## HACCP Plan

Firm Name: <i>ABC World Shrimp Company</i>	Product: <i>Raw Farm Shrimp</i>
Address: <i>Anywhere, Any Country</i>	Method Storage & Distribution: <i>Frozen</i>
Signature: <required signature>	Intended Use: <i>To be cooked for consumption by the general public</i>
	Date: <date validated and signed>
Printed (printed signature for clarity)	

CRITICAL CONTROL POINT 1a - Aquaculture Drugs	
<b>Critical Control Point (CCP)</b>	<b>RECEIVING</b>
<b>Significant Hazard</b>	Aquaculture drug residuals in the farmed shrimp due to use of unapproved drugs or misuse of approved drugs
<b>Critical Limits</b>	Individual Producer or a Supplier written and signed Guarantee accompanying each ‘farm lot’ of incoming farm-raised shrimp from individually identified farms
<b>Monitoring</b>	<b>What</b> Presence of individual Producer or Supplier Guarantee documents
	<b>How</b> Visual check for farm and farm lot identity, and presence of accompanying Guarantee
	<b>When</b> Every farm lot in every delivery at Receiving
	<b>Who</b> Assigned Coordinator for Receiving
<b>Corrective Action</b>	<p><b>IF</b> there is no Guarantee present and/or the corresponding farm cannot be identified for any individual (each) incoming farm lot at the time of delivery, <b>THEN</b> reject the farm lot(s) in question.</p> <p><b>OR</b> to qualify acceptance of any farm lot in question, the farm lot can be held in separate refrigerated storage for 24 hours to allow time to provide the required guarantee and/or farm identity, and the farm lot(s) in question can be sampled and analyzed for potential drug residues.</p> <p><b>AND - To regain control</b>, inform the involved Producer or Supplier that they must comply with the <i>ABC World Shrimp Company’s “Guidelines for Farmed Shrimp”</i><sup>1</sup> before any future lots could be accepted. New Producers and Suppliers that have not been previously identified must provide information to satisfy the current <i>ABC World Shrimp Company’s “Guidelines for Farmed Shrimp”</i> before receiving their delivered farm lots. Retrain involved staff.</p>
<b>Verifications</b>	Review of all receiving, monitoring, corrective action and verification records within one week of initial recording; <b>AND</b> all Producers and Suppliers must be validated for identity and awareness of the <i>ABC World Shrimp Company’s “Guidelines for Farmed Shrimp”</i> for Farmed Shrimp prior to product receiving; <b>PLUS</b> , Producer and Supplier Guarantees are always subject to periodic verification through on-site farm visits, review of any drug use records, and analytical testing of the shrimp in question that can be conducted by trained staff from ABC World Shrimp Company, recognized third party auditors/certifiers, and/or responsible authorities. Any analytical testing must include validation of methodology.
<b>Records</b>	Copy of Producer and Supplier signed guarantees per farm lots received; <b>AND</b> Receiving records documenting acceptance and rejections of shrimp, and any additional corrective actions involving advice and directives given to Producers and Suppliers. <b>PLUS</b> training records for Coordinator for Receiving and a current edition of the <i>ABC World Shrimp Company’s Guidelines for Farmed Shrimp</i>

<sup>1</sup> *ABC World Shrimp Company’s “Guidelines for Farmed Shrimp”* (page 17)

## HACCP Plan

Firm Name: <i>ABC World Shrimp Company</i>	Product: <i>Raw Farm Shrimp</i>
Address: <i>Anywhere, Any Country</i>	Method Storage & Distribution: <i>Frozen</i>
Signature: <required signature>	Intended Use: <i>To be cooked for consumption by the general public</i>
Printed (printed signature for clarity)	Date: <date validated and signed>

<b>CRITICAL CONTROL POINT 1b – Environmental Chemicals</b>		
<b>Critical Control Point (CCP)</b>	<b>RECEIVING</b>	
<b>Significant Hazard</b>	Potential exposure to environmental chemicals or pesticide contamination; plus natural toxins from potential harmful algal blooms or possible residuals from prior use of improper antibiotics in pond systems	
<b>Critical Limits</b>	Individual Producer or a Supplier written and signed Guarantee accompanying each ‘farm lot’ of incoming farm-raised shrimp from individually identified farms	
<b>Monitoring</b>	<b>What</b>	Confirm farm identity for each incoming farm lot of shrimp accompanied with written and signed Guarantee
	<b>How</b>	Visual check for farm and farm lot identity, and presence of accompanying Guarantee
	<b>When</b>	Every farm lot in every delivery at Receiving
	<b>Who</b>	Assigned Coordinator for Receiving
<b>Corrective Action</b>	<p><b>IF</b> there is no Guarantee present and/or the corresponding farm cannot be identified for any individual (each) incoming farm lot at the time of delivery, <b>THEN</b> reject the farm lot(s) in question.</p> <p><b>OR</b> to qualify acceptance of any farm lot in question, the farm lot can be held in separate refrigerated storage for 24 hours to allow time to provide the required guarantee and/or farm identity, and the farm lot(s) in question can be sampled and analyzed for potential drug residues.</p> <p><b>To regain control</b>, inform the involved Producer or Supplier that they must comply with the <i>ABC World Shrimp Company’s “Guidelines<sup>1</sup> for Farmed Shrimp”</i> before any future lots could be accepted. New Producers and Suppliers that have not been previously identified must provide information to satisfy the current <i>ABC World Shrimp Company’s “Guidelines for Farmed Shrimp”</i> before receiving their delivered farm lots. Retrain involved staff.</p>	
<b>Verifications</b>	<p>Review of all receiving, monitoring, corrective action and verification records within one week of initial recording; <b>AND</b> all Producers and Suppliers must be validated for identity and awareness of the <i>ABC World Shrimp Company’s “Guidelines for Farmed Shrimp”</i> for Farmed Shrimp prior to product receiving;</p> <p><b>PLUS</b>, Producer and Supplier guarantees are always subject to periodic verification through on-site farm visits, review of any drug use records, and analytical testing of the shrimp in question that can be conducted by trained staff from ABC World Shrimp Company, recognized third party auditors/certifiers, and/or responsible authorities. Any analytical testing must include validation of methodology.</p>	
<b>Records</b>	Copy of Producer and Supplier signed guarantees per farm lots received; <b>AND</b> Receiving records documenting acceptance and rejections of shrimp, and any additional corrective actions involving advice and directives given to producers and suppliers. <b>PLUS</b> training records for Coordinator for Receiving and a current edition of the <i>ABC World Shrimp Company Guidelines for Farmed Shrimp</i>	

<sup>1</sup> *ABC World Shrimp Company’s “Guidelines for Farmed Shrimp”* (page 17)

## HACCP Plan

Firm Name: <i>ABC World Shrimp Company</i>	Product: <i>Raw Farm Shrimp</i>
Address: <i>Anywhere, Any Country</i>	Method Storage & Distribution: <i>Frozen</i>
Signature: <required signature>  Printed (printed signature for clarity)	Intended Use: <i>To be cooked for consumption by the general public</i>
	Date: <date validated and signed>

<b>CRITICAL CONTROL POINT 2a – Food Additives (Sulfites)</b>									
<b>Critical Control Point (CCP)</b>	<b>PACKING</b>								
<b>Significant Hazard</b>	Food Additives - Sulfites								
<b>Critical Limits</b>	All packaged units for sale will include ‘sulfites’ in the ingredients list								
<b>Monitoring</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; padding: 5px;"><b>What</b></td> <td style="padding: 5px;">Finished product labels</td> </tr> <tr> <td style="padding: 5px;"><b>How</b></td> <td style="padding: 5px;">Visual examination of the finished product labels and ingredient statements)</td> </tr> <tr> <td style="padding: 5px;"><b>When</b></td> <td style="padding: 5px;">Representative number of packaged and labeled units per lot</td> </tr> <tr> <td style="padding: 5px;"><b>Who</b></td> <td style="padding: 5px;">Assigned Coordinator for Packaging</td> </tr> </table>	<b>What</b>	Finished product labels	<b>How</b>	Visual examination of the finished product labels and ingredient statements)	<b>When</b>	Representative number of packaged and labeled units per lot	<b>Who</b>	Assigned Coordinator for Packaging
<b>What</b>	Finished product labels								
<b>How</b>	Visual examination of the finished product labels and ingredient statements)								
<b>When</b>	Representative number of packaged and labeled units per lot								
<b>Who</b>	Assigned Coordinator for Packaging								
<b>Corrective Action</b>	<p><b>IF</b> the packaged units do not have labels or labels with ‘shrimp’ listed in the ingredients statement; <b>THEN</b> Identify, segregate and relabel the improperly labeled packages.</p> <p>Determine the cause for the problem and correct by removing and destroying the supply of incorrect labels and reviewing the label specifications with the label supplier.</p> <p>Retrain involved staff.</p>								
<b>Verifications</b>	Weekly review of packing log records and corrective action records; and annual review of label specifications, OR whenever labels are changed or replaced								
<b>Records</b>	Packing Report logs and corrective actions; copy of correct labels and label specifications; and training records for Coordinator for Packaging.								

## HACCP Plan

Firm Name: <i>ABC World Shrimp Company</i>	Product: <i>Raw Farm Shrimp</i>
Address: <i>Anywhere, Any Country</i>	Method Storage & Distribution: <i>Frozen</i>
Signature: <required signature>	Intended Use: <i>To be cooked for consumption by the general public</i>
Printed (printed signature for clarity)	Date: <date validated and signed>

<b>CRITICAL CONTROL POINT 2b - Shrimp Allergen</b>		
<b>Critical Control Point (CCP)</b>	<b>PACKING</b>	
<b>Significant Hazard</b>	Food Allergen - Shrimp	
<b>Critical Limits</b>	All packaged units for sale will include 'shrimp' in the ingredients list	
<b>Monitoring</b>	<b>What</b>	Finished product labels
	<b>How</b>	Visual examination of the finished product labels and ingredient statements
	<b>When</b>	Representative number of packaged and labeled units per lot
	<b>Who</b>	Assigned Coordinator for Packaging
<b>Corrective Action</b>	<p><b>IF</b> the packaged units do not have labels or labels with 'shrimp' listed in the ingredients statement;  <b>THEN</b> Identify, segregate and relabel the improperly labeled packages.</p> <p>Determine the cause for the problem and correct by removing and destroying the supply of incorrect labels and reviewing the label specifications with the label supplier.</p> <p>Retrain involved staff.</p>	
<b>Verifications</b>	Weekly review of packing log records and corrective action records; and annual review of label specifications, OR whenever labels are changed or replaced	
<b>Records</b>	Packing Report logs and corrective actions; copy of correct labels and label specifications; and training records for Coordinator for Packaging.	

## HACCP Plan Form (*landscape format*)

<b>Firm Name</b> <i>ABC World Shrimp Company</i>	<b>Product Description</b> <i>Raw Farm Shrimp</i>
<b>Firm Location</b> <i>Anywhere USA</i>	<b>Method of Storage &amp; Distribution</b> <i>Frozen</i>
	<b>Intended Use &amp; Consumer</b> <i>To be cooked for consumption by the general public</i>

Critical Control Point (CCP)	Significant Hazard(s)	Critical Limits for each Control Measure	Monitoring				Corrective Action	Verification	Records
			What	How	When	Who			
<b>CCP 1a</b> Aquaculture Drugs  <b>Receiving</b>	Aquaculture drug residuals in the farmed shrimp due to use of unapproved drugs or misuse of approved drugs	Individual Producer or Supplier written and signed Guarantee accompanying each 'farm lot' of incoming farm-raised shrimp from individually identified farms	Presence of individual Producer or Supplier Guarantee documents	Visual check for farm and farm lot identity, and presence of accompanying Guarantee	Every farm lot in every delivery at Receiving	Assigned Coordinator for Receiving	<p><b>IF</b> there is no Guarantee present and/or the corresponding farm cannot be identified for any individual (each) incoming farm lot at the time of delivery, <b>THEN</b> reject the farm lot(s) in question.</p> <p><b>OR</b> to qualify acceptance of any farm lot in question, the farm lot can be held in separate refrigerated storage for 24 hours to allow time to provide the required Guarantee and/or farm identity, and the farm lot in question can be sampled and analyzed for potential drug residues.</p> <p><b>AND -To regain control</b>, inform the involved Producer and Supplier that they must</p>	Review of all receiving records within one week of initial monitoring;  <p><b>AND</b> all Producers and Suppliers must be validated for identity and awareness of the ABC World Shrimp Company Guidelines<sup>1</sup> for Farmed Shrimp prior to product receiving;</p> <p><b>PLUS</b> Producer and Supplier Guarantees are always subject to verification through on-site farm visits, review of any drug use records, and analytical testing of the shrimp in question that can be conducted by trained staff from ABC World Shrimp Company, recognized third party auditors/certifiers, and/or responsible</p>	Copy of Producer/Supplier signed Guarantees per farm lots received;  <p><b>AND</b> Receiving records documenting acceptance and rejections of shrimp, and any additional corrective actions involving advice and directives given to producers and suppliers.</p> <p><b>PLUS</b> training records for Coordinator for Receiving and a current edition of the ABC World Shrimp Company Guidelines for Farmed Shrimp</p>

Critical Control Point (CCP)	Significant Hazard(s)	Critical Limits for each Control Measure	Monitoring				Corrective Action	Verification	Records
			What	How	When	Who			
							comply with the ABC World Shrimp Company Guidelines <sup>1</sup> before any future lots could be accepted. New Producers and Suppliers that have not been previously identified must provide information to satisfy the current ABC World Shrimp Company Guidelines <sup>1</sup> before receiving their delivered farm lots. Retrain involved staff.	authorities. Any analytical testing must include validation of methodology.	
<b>CCP1b</b> Environmental Chemicals  <b>Receiving</b>	Potential exposure to environmental chemicals or pesticide contamination  plus natural toxins from potential harmful algal blooms or possible residuals from prior use of improper antibiotics in pond systems	Individual Producer or Supplier written and signed Guarantee accompanying each 'farm lot' of incoming farm-raised shrimp from individually identified farms	Confirm farm identity for each incoming farm lot of shrimp accompanied with written and signed Guarantee	Visual check for farm and farm lot identity, and presence of accompanying Guarantee	Every farm lot in every delivery at Receiving	Assigned Coordinator for Receiving	<b>IF</b> there is no Guarantee present and/or the corresponding farm cannot be identified for any individual (each) incoming farm lot at the time of delivery, <b>THEN</b> reject the farm lot(s) in question.  <b>OR</b> to qualify acceptance of any farm lot in question, the farm lot can be held in separate refrigerated storage for 24 hours to allow time to provide the required guarantee and/or farm identity, and the farm lot in question can sampled	Review of all receiving records within one week of initial monitoring; <b>AND</b> all Producers and Suppliers must be validated for identity and awareness of the ABC World Shrimp Company Guidelines for Farmed Shrimp prior to product receiving; <b>PLUS</b> , Producer and Supplier Guarantees are always subject to periodic verification through on-site farm visits, review of any drug use records, and analytical testing of the shrimp in	Copy of Producer and Supplier signed Guarantees per farm lots received; <b>AND</b> Receiving records documenting acceptance and rejections of shrimp, and any additional corrective actions involving advice and directives given to producers and suppliers. <b>PLUS</b> training records for Coordinator for Receiving and a current edition of the ABC World Shrimp Company Guidelines

Critical Control Point (CCP)	Significant Hazard(s)	Critical Limits for each Control Measure	Monitoring				Corrective Action	Verification	Records
			What	How	When	Who			
							and analyzed for potential drug residues.  <b>To regain control</b> , inform the involved Producer or Supplier that they must comply with the established guidelines for ABC World Shrimp Company Guidelines before any future lots could be accepted. New Producers and Suppliers that have not been previously identified must provide information to satisfy the current ABC World Shrimp Company Guidelines before receiving their delivered farm lots. Retrain involved staff.	question that can be conducted by trained staff from ABC World Shrimp Company, recognized third party auditors/certifiers, and/or responsible authorities. Any analytical testing must include validation of methodology.	for Farmed Shrimp
<b>CCP 2a</b> Food additives (Sulfites)  <b>Packing</b>	Food Additives - Sulfites	All packaged units for sale will include 'shrimp' in the ingredients list	Finished product labels	Visual examination of the finished product labels and ingredient statements)	Representative number of packaged and labeled units per lot	Assigned Coordinator for Packaging	IF the packaged units do not have labels or labels with 'sulfites' listed in the ingredients statement; THEN Identify, segregate and relabel the improperly labeled packages.  Determine the cause for the problem and correct by removing and destroying the supply of incorrect labels and reviewing	Weekly review of packing log records and corrective action records; and annual review of label specifications, OR whenever labels are changed or replaced	Packing Report logs and corrective actions; plus copy of correct labels and label specifications; <b>PLUS</b> training records for Coordinator for Packing.

Critical Control Point (CCP)	Significant Hazard(s)	Critical Limits for each Control Measure	Monitoring				Corrective Action	Verification	Records
			What	How	When	Who			
							the label specifications with the label supplier. Retrain involved staff.		
<b>CCP 2b</b> Food Allergen (Shrimp) <b>Packing</b>	Food Allergen - Shrimp	All packaged units for sale will include 'shrimp' in the ingredients list	Finished product labels	Visual examination of the finished product labels and ingredient statements	Representative number of packaged and labeled units per lot	Assigned Coordinator for Packaging	<b>IF</b> the packaged units do not have labels or labels with 'shrimp' listed in the ingredients statement; <b>THEN</b> Identify, segregate and relabel the improperly labeled packages. Determine the cause for the problem and correct by removing and destroying the supply of incorrect labels and reviewing the label specifications with the label supplier. Retrain involved staff.	Weekly review of packing log records and corrective action records; and annual review of label specifications, OR whenever labels are changed or replaced	Packing Report logs and corrective actions; plus copy of correct labels and label specifications; <b>PLUS</b> training records for Coordinator for Packing.

<sup>1</sup> ABC World Shrimp Company's "Guidelines for Farmed Shrimp" (page 17)

## ABC WORLD SHRIMP COMPANY'S Guidelines for Farmed Shrimp

*(BRIEF EXAMPLE for TRAINING: This outline is a reduced example of concerns that should be considered in requirements for a basic food safety program. More details and specific requirements would be expected according to the size and nature of the operations, the specific attributes in different locations, and requirements by different authorities and nations. **This example is only for training purposes.** Although it does not represent any specific requirement or directive issued or mandated by the U.S. Food and Drug Administration (FDA), it does provide information that would support compliance with their prevailing Seafood HACCP regulations.*

**PURPOSE:** To maintain food safety for all farm-raised shrimp through preventative controls

### PRIMARY FOOD SAFETY CONCERNS:

- Environmental Chemical contamination from surrounding environment or farm practices
- Illegal or improper use of drugs and related chemicals for medicinal treatments or promotion of growth

### REQUIREMENTS:

All lots of farm-raised shrimp must be accompanied with assurances that they have not been exposed to environmental chemical contaminants, or illegal or improper use of drugs that could be present as residual levels unacceptable for commerce in designated markets. **Farm Lot** is defined as the amount of shrimp involved in 'one harvest or ponds from a single farm' as designated by the supplying farm (**Producer**) or the agent/broker (**Supplier**) collecting shrimp from one or more farms.

The assurances can be provided by different options best suited for the particular farming operations. All options must comply with the ABC World Shrimp Company Guidelines for specified 'Producer/Supplier guarantees' outlined in their current HACCP programs.

#### Options for assurance include:

- **Producer or Supplier written and signed guarantees** for individual farming operations and identified products (subject to verifications)
- **Farm Visit Reports and Guarantees** provided by assigned ABC World Shrimp Company staff, recognized third-party auditors or certifiers, or responsible authorities.
- **Recognized Third Party certifications** indicating the farm operations are under third-party Quality Assurance Programs (QA) that comply with the ABC World Shrimp. **Recognized third parties** can include pertinent governing authorities or independent, private services. All independent or private services are subject to pre-validations and periodic verifications by ABC World Shrimp Company and/or accreditation by the governing authorities in the producing nation or market nation. **Market nation** is the nation for intended product commerce.
- **Analytical Testing** must be conducted with acceptable and valid methodology

Farms can be **Integrated** (owned and operated by ABC World Shrimp Company) or **Non-integrated** (separate or independent operations).

## ABC WORLD SHRIMP COMPANY'S Guidelines for Farmed Shrimp

*(BRIEF EXAMPLE for TRAINING: This outline is a reduced example of concerns that should be considered in requirements for a basic food safety program. More details and specific requirements would be expected according to the size and nature of the operations, the attributes in different locations, and requirements in various locations or nations). This example is only for training purposes. Although it does not represent any specific requirement or directive issued or mandated by the U.S. Food and Drug Administration (FDA), it does provide information that would support compliance with their prevailing Seafood HACCP regulations.*

<b>Farm Name:</b>	<b>Location:</b>	<b>Qualified or Pending</b>
	<b>Contact Information:</b>	<b>Qualification Date:</b>

Requirements	Explanation and Concerns	Status & Comments (Qualified or Pending)
1. License or other agreement to permit the farming operations	<ul style="list-style-type: none"> <li>• Farm is recognized by responsible authorities and is in compliance with local regulations</li> <li>• Farm in compliance with regulations for water and land use</li> <li>• Farm participates in local cooperative or zone management program (if available and applicable)</li> </ul>	
2. Farm location is not subject to potential environmental chemical contamination from surrounding conditions or activities	<ul style="list-style-type: none"> <li>• Pond locations (watershed) not subject to runoff or drainage from adjacent lands that could result in potential chemical contamination of the farm ponds</li> <li>• Pond locations not subject to aerial spray of potential chemical contaminants</li> <li>• No chemical residuals from prior use of improper antibiotics that could contaminate the shrimp</li> <li>• No natural toxins from potentially harmful algal blooms</li> </ul>	
3. Farm operations and practices do not allow chemical contamination of the pond waters or shrimp	<ul style="list-style-type: none"> <li>• Water sources including wells do not have presence chemical contaminants</li> <li>• Proper container labeling and secure storage dedicated for any potential chemical contaminants including fuels, lubricants, pesticides, antifouling agents and other agricultural chemicals</li> <li>• Proper disposal for any chemicals or chemical containers</li> <li>• Corrective action plans in case of accidents or spills</li> <li>• Farm animals including pets not allowed access to the pond waters</li> <li>• Human or animal waste not used as fertilizers in or about the ponds</li> <li>• No human waste disposed in or about the shrimp ponds</li> </ul>	
4. Feed source and identification	<ul style="list-style-type: none"> <li>• Records available for all feed sources that are identified and pre-qualified</li> <li>• Records available for any on-farm feed formulations and practices</li> <li>• No use of farm by-products for feed</li> </ul>	

Requirements	Explanation and Concerns	Status & Comments (Qualified or Pending)
5. Disease Management & Biosecurity Program to prevent need for drug treatments	<ul style="list-style-type: none"> <li>• If available, farm participates in recognized Zone Management Program to prevent potential diseases from surrounding waters.</li> <li>• Stock source (certificate or evidence for disease free stock)</li> <li>• Proper biomass limits for carry capacity of farm (avoid stress due to crowding)</li> <li>• Proper feed levels to prevent under-feeding or overfeeding that can cause stress</li> <li>• Biosecurity Controls for land and water traffic, plus removal and secure disposal of diseased shrimp</li> <li>• Water quality controls and routinely monitored and recorded</li> <li>• Disease Alert Program (monitoring for early signs or diagnosis) and Contingency Plan for disposal of diseased shrimp</li> </ul>	
6. Drug Use Program	<ul style="list-style-type: none"> <li>• No use of drugs to prevent or cure diseases unless approved in accordance with the allowed medicinal practice (TABLE 1)</li> <li>• No use of drugs, medications, hormones or antibiotics as growth promoters</li> </ul>	
7. Product Handling and Transport	<ul style="list-style-type: none"> <li>• Time and temperature control measures set to prevent shrimp stress and abuse that could elevate bacterial levels on the shrimp</li> <li>• Use of ice must assure clean, dedicated source</li> <li>• Transport containers pre-cleaned and partially chilled before loading</li> <li>• Use of insulation to maintain chilled products for duration of transport and holding</li> <li>• No use of chemical treatments during transport and storage</li> </ul>	
8. Product Identification Program	<ul style="list-style-type: none"> <li>• Farm maintains program to identify harvest production per pond, dates and harvest that is linked with "lot identification" for each delivery.</li> </ul>	
9. Training	<ul style="list-style-type: none"> <li>• Training program for all farm employees to include instructions for all food safety concerns on the Pre-Qualified Suppliers/Farm List</li> </ul>	
10. Records	<ul style="list-style-type: none"> <li>• All farm records subject to periodic accessibility on request for verifications</li> </ul>	

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Farm Signature)

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Buyer/Processor Signature)

**TABLE 1. Guidelines for use of drugs or chemical treatments to prevent or cure diseases**

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_____	No use of ‘non-approved’ drugs or chemicals (listed below) according to the regulations in the market country of destination
_____	Use of any drugs or chemical treatments must be preapproved by the buyer and responsible authorities and must be approved for use in the importing country for intended market
_____	All feeds purchased from outside sources or feed mills must be accompanied with recorded certificates to verify the feed does not contain prohibited drugs, shrimp by-products, growth promoters, and unsafe levels of heavy metals or other chemical contaminants. The records are subject to analytical verifications.
_____	All feeds made or formulated on-site at or near the farm must be accompanied with records to verify the feed does not contain prohibited drugs, shrimp by-products, growth promoters, and unsafe levels of heavy metals or other chemical contaminants. The records may require analytical verifications.

**Non-Approved Drugs:** Chloramphenicol, Nitrofurans, Fluoroquinolones and Quinolones, Malachite Green, Steroid Hormones, and related chemical compounds that may be identified by alternative or market names.

**REFERENCES**

(Additional space for background information and supporting documents or websites.)