QUALITY SEAFOOD INSPECTION METHODOLOGY
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Inspection Definitions

IQF — Individually Quick frozen.

Quality — A degree of excellence or acceptability, measured by a set of specifications.

HACCP (Hazard Analysis Critical Control Points) — Identifies and controls hazards, to insure food safety.

SOP’s (Standard Operating Procedures) — Step-by-step analysis of how to get from A to Z.

GMP’s (Good Manufacturing Practices) — Provides information and procedures to produce/inspect a safe quality product.

Adulteration SEC. 402 (a) 3 & 4:
  Sec 402 (a) (3) — Foods are deemed to be adulterated if they consist in whole or in part of any filthy, putrid or decomposed substances.

  Sec 402 (a) (4) — Foods are deemed to be adulterated whereby they may have been prepared, packed, or held under unsanitary conditions contaminated by filth, or whereby they may have been rendered injurious to health.

Decomposition — Product that has an offensive or objectionable odor, flavor, color, texture, or substance associated with spoilage.

Gross Weight — Weight of product with packaging and glaze.

Net Weight — Weight of product of when packaging has been removed and is drained in a Standard No. 8 sieve for 2 minutes.

Calculated Net Weight — Weight of the product with packaging removed and a ratio calculation is used based on a sub sample to determine the weight of the product.

Sub Sample — Randomly selected sample that is used to perform an inspection.

Glaze — Frozen water solution that protects the product for long periods of cold storage. Typically, larger glaze percentages yield longer shelf life.

Organoleptic Evaluation/Sensory Evaluation — Scientific discipline used to measure, analyze and interpret reactions to those characteristics of foods and materials as they are perceived by the senses of sight, smell, taste, touch and hearing.

Appearance — Visible characteristics such as color, size, shape, surface and texture.

Odor — Aroma of food before putting in mouth; by smelling.

Flavor — Aroma compounds released while food is in the mouth; by tasting.

Taste — Defined as sweet, sour, salty and bitter.
Inspection Standard Verbiage

Packaging

Acceptable – No issues noted with master cases or labeling. Master cases have no damages and are clean and free of dust.

Reasonable – Minor issues with condition of master cases, poor quality cardboard, deformed cases, and small tears in cardboard with no product exposed, cases may also have a light to moderate amount of dirt/dust accumulation.

Unacceptable – Master cases may be filthy, and have heavy dust accumulation, cases could be badly damaged, busted, torn, and some cases may even have exposed product.

Labeling Issue – Product is improperly labeled or fails to meet federal guidelines for labeling requirements.

COL/RINGS/SP (Color/Rings/Spots):

• Good
• R. Good (Reasonably Good)
• Fair
• Poor

Appearance

Acceptable – Indicative of its product description and there shall be no issues with workmanship, temperature variance, or dehydration.

Reasonable – Indicative of its product description, there shall be no dehydration, may have minor issues with temperature variance, and product may have minor issues with workmanship.

Unacceptable – Product is not indicative of its product description; there may be issues with workmanship, temperature abuse, dehydration.
Inspection Standard Verbiage – continued

**Odor/Flavor**

**Good** – Odor/flavor shall be indicative to that of fresh or frozen seafood with no odors related to decomposition. There shall be no aged or freezer off odors).

**R. Good (Reasonably Good)** – Odor/flavor shall be indicative to that of reasonably fresh or frozen seafood. Product may have slight odors related to decomposition. There shall be no aged/freezer off odors.

**Fair** – Odor/flavor shall be indicative to that of reasonably fresh or frozen seafood. Product may have slight to moderate odors related to decomposition. There may also be some minor aged or freezer off odors.

**Poor** – Odor/flavor is not indicative to that of fresh or frozen seafood. Product may have slight to moderate odors related to decomposition. There may also be a moderate amount of aged or freezer off odor).

**NSHC (Not Suitable for Human Consumption)** – Odor/flavor is not indicative to that of fresh or frozen seafood. Product may have heavy odors related to decomposition. I.e. fecal, putrid odors may be present. There may also be a moderate to heavy amount of aged or freezer off odors.
### Common Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
<th>Applies to</th>
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</thead>
<tbody>
<tr>
<td>P&amp;D</td>
<td>Peeled and Deveined</td>
<td>Shrimp</td>
</tr>
<tr>
<td>CPTO</td>
<td>Cooked, Peeled, Tail On</td>
<td>Shrimp</td>
</tr>
<tr>
<td>PUD</td>
<td>Peeled Undeveined</td>
<td>Shrimp</td>
</tr>
<tr>
<td>BTO</td>
<td>Butterfly Tail On</td>
<td>Shrimp</td>
</tr>
<tr>
<td>S/O</td>
<td>Shell On</td>
<td>Shrimp</td>
</tr>
<tr>
<td>T/On</td>
<td>Tail On</td>
<td>Shrimp</td>
</tr>
<tr>
<td>IQF</td>
<td>Individual Quick Frozen</td>
<td>Most Seafood</td>
</tr>
<tr>
<td>IPW</td>
<td>Individual Poly Wrapped</td>
<td>Frog Legs, Fillets, Loins, etc.</td>
</tr>
<tr>
<td>IVP</td>
<td>Individual Vacuum Packed</td>
<td>Whole Fish, Fillets, Scallops, etc.</td>
</tr>
<tr>
<td>IPB</td>
<td>Individual Poly Bagged</td>
<td>Whole Fish, Large Fillets</td>
</tr>
<tr>
<td>FAS</td>
<td>Frozen at Sea</td>
<td>Fillets</td>
</tr>
<tr>
<td>H&amp;G</td>
<td>Headed and Gutted</td>
<td>Fish</td>
</tr>
<tr>
<td>SKNLS</td>
<td>Skinless</td>
<td>Fillets</td>
</tr>
<tr>
<td>BNLS</td>
<td>Boneless</td>
<td>Fillets</td>
</tr>
</tbody>
</table>
BSF Labeling Requirements

**Domestic Purchases**

All master cases/inner retail units shall be checked for the following information. If any of the below information is missing then the product may be subject to rejection or will need to be properly labeled at the suppliers expense.

- Country of Origin
- Method of Production
- Packer and/or Distributor
- Net Weight with Units (e.g. Net wt. 40lbs 4x10lbs)
- Date Codes (e.g. Production Date Codes, Best By, Sell By)

**Import Purchases & Private Label**

- Country of Origin
- Method of Production
- Packer and/or distributor
- Net weight with units e.g. (Net wt. 40lbs 4x10lbs)
- Date Codes e.g. (Production date codes, Best By)
- Shipment Number
- Item Number (master/inner)
- UPC (master/inner)
- Nutritional Information
- Ingredients
- Cooking Instructions
- Allergen Statement
### Common Inspection Math

#### Calculated Net Weight (Wt.)

\[
\text{Net wt. lbs.} = \left( \frac{\text{Sub Sample Glaze Off wt. lbs.}}{\text{Sub Sample Glaze On wt. lbs.}} \right) \times \text{Net wt. lbs.}
\]

#### % Glaze

\[
\% \text{ Glaze} = \left( \frac{\text{Glaze On wt. lbs.} - \text{Glaze Off wt. lbs.}}{\text{Glaze On wt. lbs.}} \right) \times 100
\]

#### % Breading

\[
\% \text{ Breading} = \left( \frac{\text{Bread On wt. lbs.} - \text{Bread Off wt. lbs.}}{\text{Bread On wt. lbs.}} \right) \times 100
\]

#### Count per Pound

\[
\text{Number of Whole Usable Pieces} \times \text{1 lb.} = \left( \frac{\text{Glaze Off wt. lbs.} - \text{wt. of Unusable Pieces lbs.}}{\text{Glaze Off wt. lbs.} - \text{wt. of Unusable Pieces lbs.}} \right)
\]

#### Count per Ten Pounds (Used for King Crab Legs)

\[
\text{Number of Whole Usable Legs} \times \text{10 lbs.} = \left( \frac{\text{Net Weight Glaze off wt. lbs.} - \text{Wt. of Unusable Pieces}}{\text{Net Weight Glaze off wt. lbs.} - \text{Wt. of Unusable Pieces}} \right)
\]

#### Ratio for Tubes and Tentacles

**Ratio for Tubes**: Number of Tubes / Number of tubes and tentacles

**Ratio for Tentacles**: Number of Tentacles / Number of tubes and tentacles

E.g.  
\[
30 \text{ tubes} / (30 \text{ tubes} + 30 \text{ tentacles}) = .50 \text{ for tubes}
\]
BSF QC Sampling Plan

<table>
<thead>
<tr>
<th>No. of Cases In Lot</th>
<th>No. of Samples</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-200 Cases</td>
<td>3 Samples</td>
</tr>
<tr>
<td>201-500 Cases</td>
<td>5 Samples</td>
</tr>
<tr>
<td>501-1000 Cases</td>
<td>7 Samples</td>
</tr>
<tr>
<td>1001+ Cases</td>
<td>9 Samples</td>
</tr>
</tbody>
</table>

**Selectivity**

Our goal is to pull samples randomly from multiple locations within the load and to sample as many date codes as possible.

In the event our Q.C. inspector has an issue with the quality or weight of a particular item they may perform additional sampling to better understand the issue at hand.

**Sub-Samples**

Typically the smallest inner unit will be pulled from the master case and used as a subsample for the inspection. For bulk packed items the subsample should be at least 10 percent of the declared net weight.
## Sensory Quality Indicator Guide

<table>
<thead>
<tr>
<th>Sensory Quality Indicators-Shrimp- By the US Department of Commerce-National Sensory Section-All Right Reserved</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance/Text. Raw</strong></td>
</tr>
<tr>
<td><strong>GOOD</strong></td>
</tr>
<tr>
<td><strong>REASONABLY GOOD</strong></td>
</tr>
<tr>
<td><strong>FAIR</strong></td>
</tr>
<tr>
<td><strong>POOR</strong></td>
</tr>
<tr>
<td><strong>NOT FOR HUMAN CONSUMPTION</strong></td>
</tr>
<tr>
<td><strong>NOT FOR HUMAN CONSUMPTION</strong></td>
</tr>
</tbody>
</table>

SL - Slight  
MOD - Moderate  
ST - Strong
### Beaver Street Fisheries Inspection Sheet

**Date/Time:** __________________ / __________________

**P.O. #:** __________________

**Inspected by/Warehouse:** __________________

**Marks#:** __________________

**Master** ___ **Inner** ___

<table>
<thead>
<tr>
<th>Description:</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
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<tbody>
<tr>
<td><strong>Item #:</strong></td>
<td></td>
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<tr>
<td><strong>Lot #:</strong></td>
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<tr>
<td><strong>Brand:</strong></td>
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<tr>
<td><strong>Packer:</strong></td>
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<tr>
<td><strong>Dist. By:</strong></td>
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<tr>
<td><strong>Country:</strong></td>
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**Prod. gr:**

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<tr>
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<th>F</th>
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**D:** H x W x D

**I:** H x W x D

**#Cs. / Pal / Ti**

**Pack/wt:**

**UPC**

**UPC Scans Correctly**

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<thead>
<tr>
<th>Y</th>
<th>N</th>
<th>Y</th>
<th>N</th>
<th>Y</th>
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**Dt. Codes:**

**Nut. Label**

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<tr>
<th>Y</th>
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**Ing. Label**

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<th>Y</th>
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**Cook Inst.**

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<tr>
<th>Y</th>
<th>N</th>
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**Aller. Lbl.**

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**Extraneous Materials**

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<tbody>
<tr>
<td>Soy</td>
<td>S. bisulfite</td>
<td>Soy</td>
<td>S. bisulfite</td>
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<tr>
<td>Salt</td>
<td>Whey/milk</td>
<td>Salt</td>
<td>Whey/milk</td>
<td>Salt</td>
<td>Whey/milk</td>
<td>Salt</td>
<td>Whey/milk</td>
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<td>Wheat</td>
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<tr>
<td>C. Acid</td>
<td>Water</td>
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<tr>
<td>Eggs</td>
<td>S. Hexa</td>
<td>Eggs</td>
<td>S. Hexa</td>
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<td>Eggs</td>
<td>S. Hexa</td>
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**Master WT.**

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**Gross WT.**

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**Net WT.**

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**Calc. Net**

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**Glaze/Brd on**

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**Glaze/Brd off**

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**Bread/glaze %**

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**CT.**

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**CT# Grading**

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**Appearance**

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**Bones**

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**COMMENTS:**

Tare: ____________ LBS

---

Revised 7/28/15 -- All forms prior to this date or without date shall be discarded --
Quality Assurance Department at Beaver Street Fisheries

When taking any photographs, verify the image quality immediately after taking the picture. If the thumbnail that immediately appears on the camera LCD screen after taking the picture appears out of focus or saturated in a certain color (i.e. the picture appears to have a red, blue, grey, or yellow tone), then take a new photograph with the relevant problems resolved. Please exercise caution when using the flash, as it may cause excessive glare and picture quality issues.

- **If the image is out of focus:**
  Most modern digital cameras will focus before taking the picture by gently pressing the button used to take the picture, without completely punching the button down and actually taking a picture. By gently pressing this button for about 2 seconds before taking the picture, the lens should focus and the photo should be clear. Also verify that the camera is appropriately zoomed in or out.

- **If the image is saturated with any color:**
  Usually, color saturation occurs because pictures are taken too fast after focusing or turning on the camera, or pictures are taken in poor or inadequate lighting. Make sure the lighting is sufficient and wait at least several seconds after focusing or turning the camera on before taking a picture.
Minimum Requirements for Photographs

1. Master Case:
   Picture(s) of ALL sides and areas of the box that contain labeling, UPCs, logos, or text of any kind. 
   **Take as many pictures as needed** (zoomed in and out as appropriate) to ensure that all printed dates, 
   date codes, plant codes, shipment numbers, serial numbers, and any other identifiable text is clearly 
   readable. This often includes taking multiple pictures of the same side of the case, as seen in the 
   examples below.
Standard Methodology for Photography – continued

2. Pictures of inner cases and/or product *just after opening the master case* to see how the item was packed.

3. **Inner case and/or inner packaging:**
   Picture(s) of ALL sides and areas of the inner box and/or inner bag that contain labeling, UPCs, logos, nutritional information, cooking instructions, or any other text. Take as many **pictures as needed** (zoomed in and out as appropriate) to ensure that all important text is readable, including allergen labels, nutritional labels, cooking instructions, printed dates, date codes, plant codes, shipment numbers, serial numbers, and UPCs. (Several examples are shown below.)
Standard Methodology for Photography – continued

4. Product:
   • Pictures are required of the product (if applicable):
     - when product is still vac-packed.
     - immediately after opening inner packaging and/or vac-pack.
     - after product has been deglazed.

   • If product is block frozen, pictures are needed of both block and thawed product after following proper thawing procedures.

   • **A minimum of 3 pictures of product are required if product is acceptable**, though more than 3 pictures are encouraged, if possible.

   • Take pictures of the entire product, and zoom in to take additional pictures if there are quality defects.
     - If defects are present, several pictures are required that clearly illustrate the quality defects.
     These pictures will be used for returns, rejections, and/or insurance claims.

   • Following suggestions outlined on Page 1, ensure that picture quality is acceptable for products: pictures should be taken in proper lighting, in proper focus, and without color problems. If needed, take additional pictures to replace any that fail to meet standards.

   • **Do not** upload pictures to Q:\ that have problems similar to the examples below.

Examples of product images that **DO NOT meet standards:**

- Blurred
- Improper Zoom, Blurred
- Accidental or Unrelated
- Large Shadow Over Product
- Shadow or Bad Lighting
- Excessive Glare (from Camera Flash or Bad Light)
Standard Methodology for Photography – continued

Examples of product images that meet standards:
5. **Standards for uploading photos to Q:**

- Do not upload pictures that do not meet requirements, including (but not limited to): large shadows, lighting problems, excessive glare, improperly zoomed or focused, or accidental/unrelated pictures.

- Pictures that will be uploaded to Q:\ must be imported using the Windows photo import function. The exact steps to follow differ according to camera type, Windows version, and computer settings, though the following conventions should be used during importing:

  - Import each lot separately, naming the files as “PurchaseOrderNo-LotNo-“

    - With the import function in Windows, there should be a field asking what “tag” or filename to use. For an item from PO# 7049728 and Lot# 039404X, in this field you would type “7049728-39404”.

    - For the “path”, or the location on the computer to send the photos, use the following example for a picture taken at Robinson QC lab on March 16, 2012:

      
      Q:\QCPhotos\2012\03-16-12\RBN\  
      – If pictures are taken at Preferred, use \PFS\, not \RBN\  
      – If pictures are taken at Sea Est, use \SEA EST\, not \RBN\  

  - Example of FINAL imported filenames for 3 photos from PO# 7049728 and Lot# 039404X taken at Preferred on March 16, 2012:

    Q:\QCPhotos\2012\03-16-12\PFS\7049728-39404-001.jpg
    Q:\QCPhotos\2012\03-16-12\PFS\7049728-39404-002.jpg
    Q:\QCPhotos\2012\03-16-12\PFS\7049728-39404-003.jpg
Assigned Status

**O: OPEN** – Product is open and available for sale to all sales associates.

**T: OPEN/TESTED** – This is used to show salesmen that product has been tested. Salesman will need to view the comment section to view the testing performed.

**H: FDA HOLD** – Food and Drug Administration has placed this product on hold for review or to be tested by a third party.

**S: CUSTOMS HOLD** – The United States Customs Agency has placed this product on hold for review. Normally the customs officer will need to watch the seal on the container be broken as well as watch the product be unloaded. Occasionally the officer may need to open the packaging and inspect the product.

**M: COOL HOLD** – Used to place product on hold that does not comply with COOL labeling requirements (No method of production or country of origin). In conjunction product that is normally placed on COOL HOLD is moved in the system to warehouse five where the product can be properly labeled. (Only authorized QC staff has clearance to change product to and from COOL HOLD).

**Q: HACCP HOLD** – Used for product that has issues with the following: (food safety, temperature abuse, labeling issues other than COOL, quality, complaint issues). Product placed on HACCP HOLD may also be transferred to warehouse five where product can be properly disposition (Only authorized Q.C. staff has clearance to change product to and from HACCP HOLD).

**R: RETURN** – Used for product returns that have issues with the following: (packaging labeling issues, quality, returns with complaint issues). In conjunction product that is normally placed on a RETURN HOLD is moved in the system to warehouse five where the product can be properly disposition (Only authorized QC staff have clearance to change product to and from a RETURN HOLD).

**I: INVENTORY HOLD** – Used to place product on hold for special customers, certain testing requirements, and limited supplies.

**C: CUSTOMER HOLD** – Used to place product on hold for customers that order direct shipments.

**X: NOT FOR SALE** – Product is placed on “Not For Sale” by sales management staff to control inventory for special items with limited supplies.

**U: USDC INSPECTION** – This product has been placed on hold for inspection by the United States Department of Commerce

**D: OUT LOT** – Used when inventory has been depleted.

**P: IMPORT HOLD** – This is used to allow incoming product to show in inventory while the import department finalizes all receiving documentation.

* STATUSES IN RED ARE STRICTLY RESERVED FOR QUALITY CONTROL.*
Dear Valued Customer,

As a large importer of seafood, Beaver Street Fisheries has taken a proactive approach to ensure the integrity and validity of our Grouper Program. Effective November 14, 2007 all imported grouper will undergo a DNA analysis by Applied Food Technologies. Our sampling guidelines are as follows:

One fillet per 5,000lbs will be sampled. In addition, for each shipment received, we require our suppliers to ship a whole grouper from the fish used for that production run. The whole grouper will be verified against the fillets in the shipment to ensure our suppliers are packing correctly. All shipments “not confirmed” as a known grouper species on file with the Applied Food Technologies will be placed on HACCP HOLD in our system and a notice of rejection will be sent to the packer.

The attached PDF file is a current list of confirmed DNA test results for Grouper, as well as the other species reviewed in our certification program. At Beaver Street Fisheries, we want to make sure that you can sell our products with confidence. Should you have questions concerning this information please feel free to contact one of the following:

Carlos Sanchez  
tel: (904) 634-6623  
email: csanchez@seabest.com

David Troutman  
tel: (904) 634-6622  
email: dtroutman@seabest.com

Also, please view the confirmed grouper species declared by the Food and Drug Administration by visiting their website at the following URL; [www.fda.gov/downloads/food/guidanceregulation/guidancedocumentsregulatoryinformation/seafood/ucm419984.pdf](http://www.fda.gov/downloads/food/guidanceregulation/guidancedocumentsregulatoryinformation/seafood/ucm419984.pdf)

“The Seafood List” is a compilation of existing acceptable market names for imported and domestically available seafood as well as scientific names, common names, and known vernacular or regional names.

Best Regards,
Molluscan Shellfish Handling Procedures

- Raw Molluscan shellfish must be at appropriate frozen temperatures upon receiving. QC must record multiple product temperatures on the Q.C. inspection sheet and receiving documents.

- Shellfish must also be appropriately tagged and labeled therefore Q.C. must verify that the product is properly tagged and labeled by the processor to facilitate immediate trace back information (See examples below).

- The above information is also transferred on our internal record sheet (Please see next page for example).

- Detailed records are maintained in the Q.C. Office (copies of tags, receiving log with temperatures, QC inspections, labels, purchase orders, sales, & lot records).

- It is important to note that raw molluscan shellfish must be from a licensed processor listed on the United States Food and Drug Administration Interstate Shellfish Shippers List.
  www.fda.gov/downloads/food/guidanceregulation/federalstatefoodprograms/ucm381402.html
TRAILER-RECEIVING LOG—MOLLUSCAN SHELLFISH-FROZEN
Method of Storage and Distribution: Frozen
Intended Use: To be eaten raw or cooked

Critical Limits:

- Only receive Shellstock/shucked product from certified dealers listed in current Interstate Certified Shellfish Shippers List (ICSSL).
- Only receive Shellstock/shucked product tempered at 10°F or below.

Corrective Action: Reject any product that does not meet critical limits.

Date: 01/17/08

Product Type: Frozen oysters ½ Shell tray pack
Product Quantity: 150 CS
Product P.O./Item/Lot# (BSF): 6193019/5404028/798559
Harvest Area: LA A-1 LA wild reef
Harvest Date/Code: 12/31/07
Name & Dealer cert. # /harvest ID: Bon Secour, Fisheries / AL49
5 CONTAINERS PER LOT PER DELIVER WERE CHECKED: YES

Receipt Temperature: 1.+3°F 2.+4°F 3.+5°F 4. 5.

Comment: ____________________________________________

Inspector: ____________________________ Date: _________________
Reviewer: ____________________________ Date: _________________
## Sampling

A) Check the condition of the product for any temperature related issues when pulling samples. Also, make any necessary notation of the condition, and temperatures from the trailer/container being unloaded.

B) In order to pull the accurate number of samples, please refer to the BSF Q.C. Sampling Plan. Samples shall be taken from random locations from multiple pallets. It is also important that different production date codes be sampled and evaluated.

## Packaging

Check the condition of the outer and inner packaging material for ineffective packaging materials and defective workmanship that will contribute to a loss of shelf-life or dehydration. Deficiencies would include punctures in wrapping and poly bags/ vac packs, weak cardboard, vacuum packs not sealed properly and poly bags not folded over the product to prevent dehydration.

**Inspect the packaging and product for temperature abuse using the following guidelines:**

1) Wet cardboard or the condition of refrozen wet cardboard
2) Master cases or inner packaging that is severely stuck together and difficult to separate.
3) Excessive frost on product
4) Loss of glaze on product
5) Product is pliable
6) I.Q.F. Clumping: product is stuck together with accumulated frozen liquid in the bag
7) Objectionable odors
8) Discolored glaze that has been refrozen
Inspection Methodology for Crab Legs – continued

Labeling

Master cases and inner packs shall be checked for the following information: All information shall be recorded on the inspection worksheets.

1) Product Description
2) Item Number (master/inner)
3) Lot Number
4) Brand
5) Country of Origin
6) Method of Production
7) Packer and/or distributor
8) Pack weight with units e.g. (Net wt. 40lbs 4x10lbs)
9) Date Codes e.g. (Production date codes, Best By, Sell By)
10) Shipment Number
11) UPC master/inner – must be scanned and verified to be correct
12) Nutritional Information
13) Ingredients
14) Cooking Instructions
15) Allergen Statement

Also, record on the inspection sheet the dimensions of the master case (L x W x H), pallet count, and number of cases within the lot.
Inspection Methodology for Crab Legs – continued

**Inspection**

**A) Physical Inspection**

1. To record the **Gross Weight** of the master case or inner pack with all contents (cardboard box, packaging material, and product with glaze on).

2. Open master/inner case to examine the overall quality of the product to ensure that there is no dehydration or decomposition present. There is a “zero tolerance” for the presence of any dehydration/decomposition.

3. At this point the net weight may also be calculated using the following calculation.

\[ \text{Net weight} = \text{Gross weight} - \text{(All packaging material)} \]

4. For **Sub-Sample**, randomly select six full clusters and/or ten percent of the declared net weight of the master case. (Full cluster is defined as having three walking legs and a claw) from the top, middle, and bottom to give a uniform representation of the glaze on the product. While pulling samples please take note of the pack for any obvious appearance defects, excessive amounts of usable broken and unusable pieces (Defined below). Record this weight in the (Glaze On) section of the inspection worksheet.

5. Place clusters in a No 8 sieve with shoulder portion down. Remove all visible glaze from clusters and let drain for 2 minutes at a 30° angle with the shoulder portion of the crab placed down. (Please note that optimum water temperature should be between 70°F & 80°F). After the 2-minute drain remove clusters from sieve and record weight in the (Glaze Off) section of the inspection worksheet.

6. With glazed removed from the subsample the following calculations can be made.

\[ \text{Calculated Net Wt.} = \frac{\text{Sub Sample Glaze Off wt. lbs.}}{\text{Sub Sample Glaze On wt. lbs.}} \times \text{Net wt. lbs.} \]

\[ \% \text{ Glaze} = \frac{(\text{Glaze On wt. lbs.} - \text{Glaze Off wt. lbs.})}{\text{Glaze On wt. lbs.}} \times 100 \]

(For King Crab Only)

\[ \text{Count per Ten Pounds (Used for King Crab Legs)} = \frac{\text{Number of Whole Usable Legs}}{\text{Net Weight Glaze off wt. lbs.} - \text{Wt. of Unusable Pieces}} \times 10 \text{ lbs.} \]

15) Weigh and record the size of the clusters using ounces. Record these weights in the (Grading) section of the inspection worksheet. Also, if there is an excessive amount of broken please document and record the weights of the useable/unusable broken pieces.
B) Appearance Inspection (Observe and Document the following appearance defects).

1. Workmanship – The crab shall be properly cleaned and processed. Shoulder sections of the crab should be reasonably free from the following: (Carapace and carapace lining, mandibles, viscera, and gill).

2. Marine Growth – The crab shall also be reasonably free from marine growth (sea lice, moss, seaweed, barnacles).

3. Scarring – Crab shall be reasonable free from excess scarring/light scratches.

4. Mottling – Light to moderate amount of tanning would be considered acceptable and moderate to dark/heavy tanning would be unacceptable.

C) Broken

1. Full Cluster – Three walking legs and claw arm is attached. The trailer leg may or may not be present to be considered a full cluster.

2. Useable Broken – Loose whole major appendages with or without shoulder attached.

3. Unusable Broken – Shoulder sections, trailer legs, broken legs, broken claws/claw arms, tips, pieces

D) Organoleptic Inspection (Please refer to the Sensory Quality Indicators guide)

1. Odor/Flavor – Shall be that of live freshly caught and processed crab with no sour, sickly sweet, or ammonia attributes.

2. Texture – Shall be firm and moist in texture with no soft or mushy attributes which are good indicators that decomposition is present.

3. Color – Shall be indicative to that of live freshly caught and processed crab with no black or blue meat which are good indicators that there is some level of decomposition or the crab was improperly cooked.
Snow Crab Inspection

WHOLE SNOW CRAB

CLUSTER SIZES

10/up
8/up
5/8
4/up

CUSTOM CUTS

SINGLE CUTS

SPLIT CLUSTERS
In order to understand the value of King Crab a little history as to how the “count” of King Crab was established makes the procedures we follow today more clear. When the King Crab fisheries began in the 70’s it was the crabmeat and not the crab legs (in shell) that was sold. Eventually seafood processors began to experiment with selling the crab in its natural shell and what evolved were King Crab legs and claws packed into 10-pound boxes. (In fact, processors did sell the King Crab cut up into parts much like that of a chicken and where some sales like this continue to this day the volume of “parts” sold is quite small).

The standard 10-pound pack of legs and claws consisted of three components: (1) legs, (2) arms with claw and (3) broken. King Crab was sized in the following counts:

<table>
<thead>
<tr>
<th>Count</th>
<th>6/9</th>
<th>9/12</th>
<th>12/14</th>
<th>14/17</th>
<th>16/20</th>
<th>20/24</th>
<th>20/UP</th>
</tr>
</thead>
</table>

These counts represented the number of legs in the 10-pound box. In addition, King Crabs have 1 arm with claw for 3 legs. (in nature) By dividing the count by 3, one could determine the number of arms with claws also in the 10 pound box. For example, a 14/17 count had 14 to 17 legs, plus 4 to 6 arms with claws. In addition to this, each 10-pound box has about ½ pound of broken King Crab. (Broken can be a leg or arm with claw that has been broken, usually at the joint.) This pack was identified as a “natural proportion” pack.

By the end of the 70’s King Crab legs and claws became more popular than the crabmeat itself. The pack went from a 10-pound master to a 20-pound master. Determining the “count” became more confusing, but the rules really did not change. A 14/17 count still means 14 to 17 legs, but this is the leg count for a 10 pound box, so in a 20 pound box the number would double. Likewise, the arms and claws double as does the broken. Thus a 14/17 would have 28 to 34 legs, 9 to 12 arms and about 1 pound of broken.
King Crab Facts – continued

KING CRAB PORTIONS
- WHOLE LEG & CLAW
- SELECTS
- MERUS
- CLAW & ARM

KING CRAB SIZES:
- 6/9
- 9/12
- 12/14
- 14/17
- 16/20
- 20/24
- 20/up

KING CRAB CUSTOM CUTS
- BROILER CLAW
- SPLIT LEG & CLAW
- SCORE / SNAP & EAT
- WHOLE LEG WINDOW CUT
- WHOLE LEG BUTTERFLY

WHOLE KING CRAB
- MERUS
- LEG
- BROILER CLAW
- CLAW & ARM
- SELECT PORTION
Blue Swimming Crab Facts

Harvesting

The Blue Swimming Crab is harvested year-round from the tropical waters of the Sea of Cortez.

Characteristics

The maximum length from point to point on the carapace is eight inches. The fifth pair of legs forms flat paddles for swimming. The body meat is white and leg meat is brown.

Processing and Pasteurization

Fresh crabs are cooked and then allowed to cool. The meat is then hand-picked, graded and placed in cans, then hermetically sealed and pasteurized. Pasteurization is a heat treatment process which destroys natural pathogenic microorganisms to extend shelf life without adding artificial preservatives. Once pasteurized, the product has a shelf life of 8-12 months, under refrigeration.

Advantages of Pasteurized Crab Meat

- Dependable year-round supply
- Virtually shell-free
- Consistent: Every can opened looks like the last and will look like the next
- Controlled inventory
- Quality-control standards driven by food technicians at all plants
- Guided by HACCP regulation
Blue Swimming Crab Facts – continued

Hand Picked Meat (Available in 5 grades):

- Jumbo Lump
- Backfin
- Special
- Claw
- Claw Fingers

**White Meat**
Smaller and broken pieces of Jumbo Lump with large flakes included.

**White Meat**
The two largest unbroken muscles connected to the swimming legs of the crab.

**White Meat**
The remaining body meat with some lump and flake meat.

**Brown Meat**
From the claws and legs of the crab.

**Brown Meat**
First section of the Crab Claw with part of the shell removed.
Pasteurized Crabmeat Procedures

Inspection and Receiving

- Upon receiving a shipment of refrigerated canned pasteurized crabmeat it is important to document the temperature of the container/trailer as well as record several pulp temperatures. Please note that temperatures should fall between 32.5°F & 38°F. **The critical limit for refrigerated pasteurized crab meat is (+ 40°F).** For additional information please reference the (Fish & Fisheries Products Hazards & Control Guidance: Third Edition, Chapter 12) listed on pages (26-27).

- All shipments of refrigerated pasteurized crabmeat contain a time temperature indicator (T.T.I.) or a time temperature recorder (T.T.R.) upon delivery unless the origination location on the general bill of lading is less than 4 hours from Beaver Street Fisheries. Please note that temperatures should fall between 32.5°F & 38°F.

- In order to inspect the crabmeat, place the unopened can on the scale and record this in the **Gross Weight** section of the inspection worksheet. Open the can and empty the meat and natural juices onto the scale and record this in the **Net Weight** section of the inspection worksheet.

- After recording the weights, it is important to smell the meat to determine if any off odors are present (sour, sickly sweet, ammonia). The meat should appear clean, white and smell fresh with no off odors, colors. The texture should be firm and moist with no mushy or dry attributes.

- When inspecting crabmeat, it is important to sift through the meat and record any physical defects such as shell and cartilage.
Pasteurized Crabmeat Procedures – continued

Kinds of Pasteurized Crabmeat

Colossal

Jumbo Lump

Super Lump
Pasteurized Crabmeat Procedures – continued

Lump

Special

Claw
### Pasteurized Crabmeat Procedures – continued

**For receiving of refrigerated (not frozen) cooked, ready-to-eat or raw, ready-to-eat fishery products to be stored, or processed without further cooking:**

<table>
<thead>
<tr>
<th><strong>What:</strong> The internal temperature of the fishery product throughout transportation; OR The temperature of the truck or other carrier throughout transportation; OR for fishery products with a transit time of four hours or less: The internal temperature of a representative number of containers in the lot at time of delivery; OR The adequacy of ice or chemical cooling media at time of delivery.</th>
<th><strong>How:</strong> Use a time/temperature integrator for product internal temperature monitoring during transit; OR Use a maximum indicating thermometer for ambient air temperature monitoring during transit; OR Use a digital time/temperature data logger for product internal temperature or ambient air temperature monitoring during transit; OR Use a recorder thermometer for ambient air temperature monitoring during transit; OR Use a dial or digital thermometer for internal product temperature monitoring at receipt; OR Make visual observations of the adequacy of ice or other cooling media in a sufficient number of containers to represent the entire product.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Frequency:</strong> Each shipment.</td>
<td><strong>Who:</strong> With recorder thermometers, time/temperature integrators, high temperature alarms, maximum indicating thermometers, and digital data loggers, monitoring is performed by the equipment itself. However, anytime that such instrumentation is used, a visual check should be made at least once per day in order to ensure that the critical limits have consistently been met. These checks, as well as dial thermometer checks, time of exposure checks, and adequacy of ice or other cooling media checks may be performed by the receiving employee, the equipment operator, a production supervisor, a member of the quality control staff, or any other person who has an understanding of the process and the monitoring procedure.</td>
</tr>
</tbody>
</table>

For receiving of refrigerated (not frozen) cooked, ready-to-eat or raw, ready-to-eat fishery products to be stored, or processed without further cooking:

**Corrective Action:** Reject shipment, if the CL is not met; OR Hold the product until it can be evaluated based on its total time/temperature exposure; AND

Discontinue use of supplier or carrier until evidence is obtained that transportation practices have changed.

Note: If an incoming lot that fails to meet a receiving critical limit is mistakenly accepted, and the error is later detected, the following actions should be taken: 1) the lot and any products processed from that lot should be destroyed, diverted to a nonfood use or to a use in which the critical limit is not applicable, or placed on hold until a food safety evaluation can be completed; and 2) any products processed from that lot that have already been distributed should be recalled and subjected to the actions described above.

**Records:** Receiving record showing the results of the time/temperature integrator checks; OR Printout from digital time/temperature data logger; OR

Recorder thermometer chart; OR

Receiving record showing the results of the maximum indicating thermometer checks; OR The results of internal product temperature monitoring at receipt; AND

The date and time of departure and arrival of the vehicle; OR Receiving record showing the results of the ice or other cooling media checks.

Storage

- Once crabmeat is received into inventory it is immediately placed in a racked cooler which is continuously monitored by multiple temperature recording devices which are calibrated for accuracy on a regular basis (quarterly).

- In the event of a system failure or temperatures exceeding 40°F the recording devices are connected to a high temperature alarm system which is programmed to alert our maintenance department 24 hours a day. In addition, all time temperature data is captured on data loggers which have back up battery support in the event of a loss of power.

- On average our cooler temperatures fluctuate between 33°F & 35°F.
**Shipping**

- When an order is placed for refrigerated pasteurized crabmeat the product is pulled from the cooler racks and wrapped with insulated foil bubble wrap to help insulate and protect the product from any temperature fluctuations during transit to our customers.

- Once product has been wrapped it will remain in the cooler until time to be placed on the trailer at which time a small slit will be made into the bubble wrap in order to place the time temperature reorder device (TempTale 4) inside.

- To activate TempTale 4 please refer to the orange display panel labeled “Shipper Instructions”.

- Please note the master carton that contains the time temperature recorder shall be labeled with an orange and white sticker that states: (Crabmeat-Maintain 34°F TTR Inside).

- The trailer shall be checked for cleanliness, sanitation, unit is running properly, and temperatures are notated on the trailer shipping log which is to be signed by the driver once loaded and sealed.

- Once trailer is loaded and sealed the driver signs all paperwork and understands the importance of maintaining temperatures within the products critical limitations.
Soft Shell Crabs

Crabs are measured tip to tip in order to determine size.

### Sizing Guideline for Soft Shell Crab

<table>
<thead>
<tr>
<th>Size</th>
<th>Pack</th>
<th>Measure</th>
<th>Box Weight</th>
<th>Approx. Ind. Crab Wt. (oz.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whales</td>
<td>10/1.5 dozen</td>
<td>5.5 inches &amp; Up</td>
<td>5.25 to 5.75 lbs.</td>
<td>4.5oz to 5.5oz</td>
</tr>
<tr>
<td>Jumbo</td>
<td>10/2 dozen</td>
<td>5-5 to 5 inches</td>
<td>5.25 to 5.75 lbs.</td>
<td>3.5oz to 4.5oz</td>
</tr>
<tr>
<td>Prime</td>
<td>10/3 dozen</td>
<td>4.5 to 5 inches</td>
<td>6.0 to 6.5 lbs.</td>
<td>2.5oz to 3.5oz</td>
</tr>
<tr>
<td>Hotel</td>
<td>10/4 dozen</td>
<td>4 to 4.5 inches</td>
<td>6.0 to 6.5 lbs.</td>
<td>2.0oz to 2.5oz</td>
</tr>
<tr>
<td>Medium</td>
<td>10/4 dozen</td>
<td>3.5 to 4 inches</td>
<td>4.5 to 5.0 lbs.</td>
<td>1.5oz to 2.0oz</td>
</tr>
</tbody>
</table>
Sampling

A) Check the condition of the product for any temperature related issues when pulling samples. Also, make any necessary notation of the condition, and temperatures from the trailer/container being unloaded.

B) In order to pull the accurate number of samples, please refer to the BSF Q.C. Sampling Plan. Samples shall be taken from random locations from multiple pallets. It is also important that different production date codes be sampled and evaluated.

Packaging

Check the condition of the outer and inner packaging material for ineffective packaging materials and defective workmanship that will contribute to a loss of shelf-life or dehydration. Deficiencies would include punctures in wrapping and poly bags/ vac packs, weak cardboard, vacuum packs not sealed properly and poly bags not folded over the product to prevent dehydration.

Inspect the packaging and product for temperature abuse using the following guidelines:

1) Wet cardboard or the condition of refrozen wet cardboard
2) Master cases or inner packaging that is severely stuck together and difficult to separate.
3) Excessive frost on product
4) Loss of glaze on product
5) Product is pliable
6) I.Q.F. Clumping: product is stuck together with accumulated frozen liquid in the bag
7) Objectionable odors
8) Discolored glaze that has been refrozen
Labeling

Master cases and inner packs shall be checked for the following information: All information shall be recorded on the inspection worksheets.

1) Product Description
2) Item Number (master/inner)
3) Lot Number
4) Brand
5) Country of Origin
6) Method of Production
7) Packer and/or distributor
8) Pack weight with units e.g. (Net wt. 40lbs 4x10lbs)
9) Date Codes e.g. (Production date codes, Best By, Sell By)
10) Shipment Number
11) UPC (master/inner) – must be scanned and verified to be correct
12) Nutritional Information
13) Ingredients
14) Cooking Instructions
15) Allergen Statement

Also, record on the inspection sheet the dimensions of the master case (L x W x H), inner case, pallet count, and number of cases within the lot.
Inspection Methodology for Lobster – continued

Inspection

A) Physical Inspection

1. Record the **Gross Weight** of the master case or inner pack with all contents (cardboard box, packaging material, and product with glaze on).

2. Open master/inner case to examine the overall quality of the product to ensure that there is no dehydration or decomposition present. There is a “zero tolerance” for the presence of any dehydration/decomposition.

3. In order to obtain a tare weight for the bags, count the number of tails while examining for defects, and then multiply that number by the average weight of the plastic bag/poly wrap. At this point the net weight may also be calculated using the following calculation. **Net weight = Gross weight – (All packaging material)**

4. For **Sub-Sample**, randomly select six lobster tails and/or ten percent of the declared net weight from the master/inner cases. Remove poly wrap/plastic bags and record the weight of the tails in the (Glaze On) section of the inspection worksheet.

5. Place lobster tails in a No 8 sieve with belly portion down. Remove all visible glaze from the lobster and let drain for 2 minutes at a 30° angle. (Please note that optimum water temperature should be between 70°F & 80°F). After the 2-minute drain, remove lobster tails from sieve and record weight in the (Glaze Off) section of the inspection worksheet.

6. With glazed removed from the subsample the following calculations can be made.

   \[
   \text{Calculated Net Wt.} = \frac{\text{Sub Sample Glaze Off wt. lbs.}}{\text{Sub Sample Glaze On wt. lbs.}} \times \text{Net wt. lbs.}
   \]

   \[
   \% \text{Glaze} = \left(\frac{\text{Glaze On wt. lbs.} - \text{Glaze Off wt. lbs.}}{\text{Glaze On wt. lbs.}}\right) \times 100
   \]

7. Weigh and record the size of each of the lobster tail in ounces. Record these weights in the (Grading) section of the inspection worksheet. Tails should fall (+/-) a ½ ounce for a declared size or all tails should fall between a declared size range with the exception of the 10-12 oz. size range which can fall between 9.5-12 oz.
B) Appearance Inspection (Observe and Document the following appearance defects).

1. **Black Bellies** – Noticeable dark area on the belly membrane and anal area of the lobster.

2. **Soft Shell** – Lobster shell is soft to the touch and may in some cases appear translucent.

3. **Excessive throat meat** – The meat extends past the shell portion more than a 1 ½ inches. In some case this portion of the meat may appear dirty or gray.

4. **Broken or Cracked shell** – The shell is partially broken or cracked.

5. **Broken and damaged tails** – Please note if the lobster has broken or missing tails fins. The middle tail fin is referred to as the telson.

C) **Organoleptic Inspection** (Please refer to the Sensory Quality Indicators guide)

1. **Odor/Flavor** – Shall be that of freshly caught and processed lobster with no sour, sickly sweet, or ammonia attributes.

2. **Texture** – Shall be firm and moist in texture with no soft or mushy attributes which are good indicators that decomposition is present.

3. **Color** – Shall be indicative to that of live freshly caught and processed lobster.
Sampling

A) Check the condition of the product for any temperature related issues when pulling samples. Also, make any necessary notation of the condition, and temperatures from the trailer/container being unloaded.

B) In order to pull the accurate number of samples, please refer to the BSF Q.C. Sampling Plan. Samples shall be taken from random locations from multiple pallets. It is also important that different production date codes be sampled and evaluated.

Packaging

Check the condition of the outer and inner packaging material for ineffective packaging materials and defective workmanship that will contribute to a loss of shelf-life or dehydration. Deficiencies would include punctures in wrapping and poly bags/vac packs, weak cardboard, vacuum packs not sealed properly and poly bags not folded over the product to prevent dehydration.

Inspect the packaging and product for temperature abuse using the following guidelines:

1) Wet cardboard or the condition of refrozen wet cardboard
2) Master cases or inner packaging that is severely stuck together and difficult to separate.
3) Excessive frost on product
4) Loss of glaze on product
5) Product is pliable
6) I.Q.F. Clumping: product is stuck together with accumulated frozen liquid in the bag
7) Objectionable odors
8) Discolored glaze that has been refrozen
Labeling

Master cases and inner packs shall be checked for the following information: All information shall be recorded on the inspection worksheets.

1) Product Description
2) Item Number (master/inner)
3) Lot Number
4) Brand
5) Country of Origin
6) Method of Production
7) Packer and/or distributor
8) Pack weight with units e.g. (Net wt. 40lbs 4x10lbs)
9) Date Codes e.g. (Production date codes, Best By, Sell By)
10) Shipment Number
11) UPC (master/inner) – must be scanned and verified to be correct
12) Nutritional Information
13) Ingredients
14) Cooking Instructions
15) Allergen Statement

Also, record on the inspection sheet the dimensions of the master case (L x W x H), pallet count, and number of cases within the lot.
Inspection Methodology for Shrimp – continued

**IQF Inspection**

**A) Physical Inspection**

1. Record the **Gross Weight** of the master case or inner pack with all contents (cardboard box, packaging material, & product with glaze on).

2. Open master/inner case to examine the overall quality of the product to ensure that there is no dehydration or decomposition present. There is a “zero tolerance” for the presence of any dehydration/decomposition.

3. At this point the net weight may also be calculated using the following calculation.

   \[ \text{Net weight} = \text{Gross weight} - \text{(All packaging material)} \]

4. For **Sub-Sample**, randomly select a minimum of 1 to 2 pounds for subsample and record weight in the (Glaze On) section of the worksheet. For block frozen shrimp the whole block will need to be thawed first in order to obtain the subsample.

5a). **IQF Shrimp** – Place shrimp in a No 8 sieve and remove all visible glaze from the shrimp and let drain for 2 minutes at a 30° angle. (Please note that optimum water temperature should be between 70°F & 80°F). After the 2-minute drain, remove shrimp from sieve and record weight in the (Glaze Off) section of the inspection worksheet.

5b). **Breaded Shrimp** – Place breaded shrimp evenly across the bottom portion of No 8 sieve and remove all breading from shrimp in the subsample using the spray method. (Please note that optimum water temperature should be between 70°F & 80°F). Once all breading has been removed let shrimp drain for 2 minutes at a 30° angle. After the 2-minute drain, remove shrimp from sieve and record weight in the (Glaze Off) section of the inspection worksheet.

5c). **Block Frozen Shrimp** – Place shrimp in a plastic bag and submerge under running water until shrimp have thawed completely. (Please note that optimum water temperature should be between 70°F & 80°F). Once shrimp have thawed place them in a No 8 sieve and let drain for 2 minutes at a 30° angle. After the 2-minute drain, remove shrimp from sieve and record weight in the (Calculated Net Weight) section of the inspection worksheet.

6. With shrimp thawed, de-glazed, or breading removed from the subsample the following calculations can be made.

   \[ \text{Calculated Net Wt.} = \frac{\text{Sub Sample Glaze Off wt. lbs.}}{\text{Sub Sample Glaze On wt. lbs.}} \times \text{Net wt. lbs.} \]

   \[ \% \text{Glaze} = \frac{(\text{Glaze On wt. lbs.} - \text{Glaze Off wt. lbs.})}{\text{Glaze On wt. lbs.}} \times 100 \]

   \[ \% \text{Breading}^* = \frac{(\text{Bread On wt. lbs.} - \text{Breading Off wt. lbs.})}{\text{Bread On wt. lbs.}} \times 100 \]

   *Please note the % Breading for “breaded shrimp” should not exceed 52%
**Inspection Methodology for Shrimp – continued**

In order to obtain the count per pound count the number of useable shrimp in the sub-sample. Separate pieces/broken shrimp from sub-sample and record as weight in the Inspection Report. *(Please note that count per pound for breaded shrimp would be determined with bread on).*

\[
\text{Count per Pound} = \frac{\text{Number of Whole Usable Pieces}}{\text{(Sub Glaze Off wt. lbs. – Wt. of Unusable Pieces lbs.)}} \times 100
\]

Shrimp are customarily sold by the count or number of individual headless, shell-on shrimp per pound. Buyers should not order shrimp by descriptive names, i.e., jumbo, large, medium. Ordering by counts is more precise and understandable. Any count or size mix can be ordered, but common commercial counts begin in units of five counts. The listed counts are most common for the packing house or dockside. Please note the common sizes.

<table>
<thead>
<tr>
<th>U/10</th>
<th>16/20</th>
<th>21/25</th>
<th>31/35</th>
<th>36/40</th>
<th>56/60</th>
<th>61/70</th>
</tr>
</thead>
</table>

B) Appearance Inspection (Observe and Document the following appearance defects). Please note any of the following defects.

- Long throat meat
- Sand veins
- Brown meat
- Soft tail
- Miscut
- IQF Clumping
- Meat Discoloration
- Black spot on meat
- Tail rot and black tail
- Chip tail
- Button hole
- Breaded Shrimp Clumping

C) Organoleptic Inspection *(Please refer to the Sensory Quality Indicators guide)*

1. Odor/Flavor – Shall be that of freshly caught and processed shrimp with no sour, sickly sweet, or ammonia attributes. Shrimp shall also be free from the following odors/flavors.

- Moderate to Strong Geosmin i.e. muddy/grassy.
- Sour, Ammonia
- Fecal, Putrid
- Stale, Cardboard
- Petroleum, Diesel
- Chemical
**Inspection Methodology for Shrimp – continued**

2. **Texture** – Shall be firm and moist in texture with no soft or mushy attributes which are good indicators that decomposition is present. A rubbery texture of shrimp is a good indicative of the misuse of phosphates.

3. **Color** – Shall be indicative to that of live freshly caught and processed shrimp. It is important to note if the shrimp have any discoloration. This is a good indicator that decomposition is present. (Black spots on the meat/tail, reddish blotches on the meat/tail portions). Translucency of shrimp is a good indicative of the misuse of phosphates.

---

**BLOCK FROZEN**  
**IQF SHRIMP**
Sampling

A) Check the condition of the product for any temperature related issues when pulling samples. Also, make any necessary notation of the condition, and temperatures from the trailer/container being unloaded.

B) In order to pull the accurate number of samples, please refer to the BSF Q.C. Sampling Plan. Samples shall be taken from random locations from multiple pallets. It is also important that different production date codes be sampled and evaluated.

Packaging

Check the condition of the outer and inner packaging material for ineffective packaging materials and defective workmanship that will contribute to a loss of shelf-life or dehydration. Deficiencies would include punctures in wrapping and poly bags/ vac packs, weak cardboard, vacuum packs not sealed properly and poly bags not folded over the product to prevent dehydration.

Inspect the packaging and product for temperature abuse using the following guidelines:

1) Wet cardboard or the condition of refrozen wet cardboard
2) Master cases or inner packaging that is severely stuck together and difficult to separate.
3) Excessive frost on product
4) Loss of glaze on product
5) Product is pliable
6) I.Q.F. Clumping: product is stuck together with accumulated frozen liquid in the bag
7) Objectionable odors
8) Discolored glaze that has been refrozen
Labeling

Master cases and inner packs shall be checked for the following information: All information shall be recorded on the inspection worksheets.

1) Product Description
2) Item Number (master/inner)
3) Lot Number
4) Brand
5) Country of Origin
6) Method of Production
7) Packer and/or distributor
8) Pack weight with units e.g. (Net wt. 40lbs 4x10lbs)
9) Date Codes e.g. (Production date codes, Best By, Sell By)
10) Shipment Number
11) UPC (master/inner) – must be scanned and verified to be correct
12) Nutritional Information
13) Ingredients
14) Cooking Instructions
15) Allergen Statement

Also, record on the inspection sheet the dimensions of the master case (L x W x H), pallet count, and number of cases within the lot.
IQF Inspection

A) Physical Inspection

1. Record the Gross Weight of the master case or inner pack with all contents (cardboard box, packaging material, and product with glaze on).

2. Open master/inner case to examine the overall quality of the product to ensure that there is no dehydration or decomposition present. There is a “zero tolerance” for the presence of any dehydration/decomposition.

3. At this point the net weight may also be calculated using the following calculation.
Net weight = Gross weight – (All packaging material)

4. For Sub-Sample, randomly select a minimum of 1 to 2 pounds for subsample and record weight in the (Glaze On) section of the worksheet. For block frozen scallops the whole block will need to be thawed first in order to obtain the subsample.

5a). IQF Scallops – Place scallops in a No 8 sieve and remove all visible glaze from the scallops and let drain for 2 minutes at a 30° angle. (Please note that optimum water temperature should be between 70°F & 80°F). After the 2-minute drain, remove scallops from sieve and record weight in the (Glaze Off) section of the inspection worksheet.

5b). Breaded Scallops – Place breaded scallops evenly across the bottom portion of No 8 sieve and remove all breading from scallops in the subsample using the spray method. (Please note that optimum water temperature should be between 70°F & 80°F). Once all breading has been removed let scallops drain for 2 minutes at a 30° angle. After the 2-minute drain, remove scallops from sieve and record weight in the (Glaze Off) section of the inspection worksheet.

5c). Block Frozen Scallops – Place scallops in a plastic bag and submerge under running water until scallops have thawed completely. (Please note that optimum water temperature should be between 70°F & 80°F). Once scallops have thawed place them in a No 8 sieve and let drain for 2 minutes at a 30° angle. After the 2-minute drain, remove scallops from sieve and record weight in the (Calculated Net Weight) section of the inspection worksheet.

6. With scallops thawed, de-glazed, or breading removed from the subsample the following calculations can be made.

\[
\text{Calculated Net Wt.} = \frac{\text{Sub Sample Glaze Off wt. lbs.} \times \text{Net wt. lbs.}}{\text{Sub Sample Glaze On wt. lbs.}}
\]

\[
\% \text{ Glaze} = \left(\frac{\text{Glaze On wt. lbs.} - \text{Glaze Off wt. lbs.}}{\text{Glaze On wt. lbs.}}\right) \times 100
\]

\[
\% \text{ Breading}^* = \left(\frac{\text{Bread On wt. lbs.} - \text{Breading Off wt. lbs.}}{\text{Bread On wt. lbs.}}\right) \times 100
\]

*Please note the % Breading for “breaded scallops” should not exceed 52%
**Inspection Methodology for Scallops – continued**

**In order to obtain the count per pound** count the number of useable scallops in the sub-sample. Separate pieces/broken scallops from sub-sample and record as weight in the Inspection Report. *(Please note that count per pound for breaded scallops would be determined with bread on)*.

\[
\text{Count per Pound} = \frac{\text{Number of Whole Usable Pieces}}{(\text{Sub Glaze Off Wt. lbs.} - \text{Wt. of Unusable Pieces lbs.})} \times 100
\]

---

**Scallop Sizing**

<table>
<thead>
<tr>
<th>Size</th>
<th>U/10</th>
<th>10/20</th>
<th>20/30</th>
<th>30/40</th>
<th>80/100</th>
<th>100/120</th>
<th>120/150</th>
</tr>
</thead>
</table>

---

**B) Appearance Inspection** (Observe and Document the following appearance defects).

Please note any of the following defects.

- Viscera
- Sand/Grit/Shell
- IQF Clumping
- Yellowing of Meat due to aging
- Meat Discoloration (Purple/Gray)
- Pumpkin Color Meat
- Breaded Scallops Clumping
- Dehydration Spots

**C) Organoleptic Inspection** *(Please refer to the Sensory Quality Indicators guide.)*

1. **Odor/Flavor** – Shall be that of freshly caught and processed scallops with no sour, sickly sweet, or ammonia attributes. Scallops shall also be free from the following odors/flavors.

- Sour, Ammonia
- Old Freezer odor/flavors
- Chemical
**Inspection Methodology for Scallops – continued**

2. **Texture** – Shall be firm and moist in texture with no soft or mushy attributes which are good indicators that decomposition is present. A rubbery texture of the scallops is a good indicative of the misuse of phosphates.

3. **Color** – Shall be indicative to that of live freshly caught, shucked and processed scallops. It is important to note if the scallops have any discoloration. This is a good indicator that decomposition is present. Translucency of scallops is a good indicative of the misuse of phosphates.

**Dry Scallops – 74% to 82% moisture**

They can be soaked in fresh water up to a moisture percentage of 82% and still be called a dry scallop. Above 82% and must be declared “Water Added”.

**Wet Scallops – 83%-86% moisture**

Packers may use sodium tripolyphosphate to make the scallops soak additional water.

Any use of an ingredient that does not have a nutritional value must be indicated and for what purpose. Ie. (STP – to retain moisture)
Sampling

A) Check the condition of the product for any temperature related issues when pulling samples. Also, make any necessary notation of the condition, and temperatures from the trailer/container being unloaded.

B) In order to pull the accurate number of samples, please refer to the BSF Q.C. Sampling Plan. Samples shall be taken from random locations from multiple pallets. It is also important that different production date codes be sampled and evaluated.

Packaging

Check the condition of the outer and inner packaging material for ineffective packaging materials and defective workmanship that will contribute to a loss of shelf-life or dehydration. Deficiencies would include punctures in wrapping and poly bags/ vac packs, weak cardboard, vacuum packs not sealed properly and poly bags not folded over the product to prevent dehydration.

Inspect the packaging and product for temperature abuse using the following guidelines:

1) Wet cardboard or the condition of refrozen wet cardboard

2) Master cases or inner packaging that is severely stuck together and difficult to separate.

3) Excessive frost on product

4) Loss of glaze on product

5) Product is pliable

6) I.Q.F. Clumping: product is stuck together with accumulated frozen liquid in the bag

7) Objectionable odors

8) Discolored glaze that has been refrozen
Labeling

Master cases and inner packs shall be checked for the following information: All information shall be recorded on the inspection worksheets.

1) Product Description
2) Item Number (master/inner)
3) Lot Number
4) Brand
5) Country of Origin
6) Method of Production
7) Packer and/or distributor
8) Pack weight with units e.g. (Net wt. 40lbs 4x10lbs)
9) Date Codes e.g. (Production date codes, Best By, Sell By)
10) Shipment Number
11) UPC (master/inner) – must be scanned and verified to be correct
12) Nutritional Information
13) Ingredients
14) Cooking Instructions
15) Allergen Statement

Also, record on the inspection sheet the dimensions of the master case (L x W x H), pallet count, and number of cases within the lot.
IQF Inspection

A) Physical Inspection

1. Record the **Gross Weight** of the master case or inner pack with all contents (cardboard box, packaging material, and product with glaze on).

2. Open master/inner case to examine the overall quality of the product to ensure that there is no dehydration or decomposition present. There is a “zero tolerance” for the presence of any dehydration/decomposition.

3. At this point the net weight may also be calculated using the following calculation.

\[
\text{Net weight} = \text{Gross weight} - (\text{All packaging material})
\]

4. For **Sub-Sample**, randomly select a minimum of 1 to 2 pounds for subsample and record weight in the (Glaze On) section of the worksheet. For block frozen calamari the whole block will need to be thawed first in order to obtain the subsample.

5a). IQF Rings/Strips/Tentacles – Place squid in a No 8 sieve and remove all visible glaze from the squid and let drain for 2 minutes at a 30° angle. (Please note that optimum water temperature should be between 70°F & 80°F). After the 2-minute drain, remove squid from sieve and record weight in the (Glaze Off) section of the inspection worksheet.

5b). Breaded Calamari – Place breaded calamari evenly across the bottom portion of No 8 sieve and remove all breading from calamari in the subsample using the spray method. (Please note that optimum water temperature should be between 70°F & 80°F). Once all breading has been removed let calamari drain for 2 minutes at a 30° angle. After the 2-minute drain, remove calamari from sieve and record weight in the (Glaze Off) section of the inspection worksheet.

5c). Block Frozen Squid – Place squid in a plastic bag and submerge under running water until squid have thawed completely. (Please note that optimum water temperature should be between 70°F & 80°F). Once squid have thawed place them in a No 8 sieve and let drain for 2 minutes at a 30° angle. After the 2-minute drain, remove squid from sieve and record weight in the (Calculated Net Weight) section of the inspection worksheet.

6. With squid thawed, de-glazed, or breading removed from the subsample the following calculations can be made.

\[
\text{Calculated Net Wt.} = \frac{\text{Sub Sample Glaze Off wt. lbs.}}{\text{Sub Sample Glaze On wt. lbs.}} \times \text{Net wt. lbs.}
\]

\[
\% \text{ Glaze} = \frac{(\text{Glaze On wt. lbs.} - \text{Glaze Off wt. lbs.})}{\text{Glaze On wt. lbs.}} \times 100
\]

\[
\% \text{ Breading}^* = \frac{(\text{Bread On wt. lbs.} - \text{Breading Off wt. lbs.})}{\text{Bread On wt. lbs.}} \times 100
\]
**Inspection Methodology for Squid – continued**

**Tubes & Tentacles** – Tubes are to be measured with a ruler and fall between the declared size ranges in (inches). There should be an equal number of tubes and tentacles in the pack. Use the following calculation to determine this information.

**Ratio for Tubes:** Number of Tubes/Number of tubes and tentacles.

**Ratio for Tentacles:** Number of Tubes/Number of tubes and tentacles.

- **Tubes** – Tubes are to be measured with a ruler and fall between the declared size ranges in (inches).

- **Rings** – The number of rings should be counted within the individual unit.

- **Rings and Tentacles** – The number of rings & tentacles should be counted within the individual unit.
B) Appearance Inspection (Observe and Document the following appearance defects). Please note any of the following defects.

- Pens and Quills
- IQF Clumping
- Yellowing of Meat Due Aging
- Beaks
- Breaded Calamari Clumping
- Dehydration Spots

C) Organoleptic Inspection
(Please refer to the Sensory Quality Indicators guide)

1. Odor/Flavor – Shall be that of freshly caught and processed squid with no sour, sickly sweet, or ammonia attributes. Squid shall also be free from the following odors/flavors.
   - Sour, Ammonia
   - Old Freezer odor/flavors
   - Chemical

2. Texture – Shall be firm and moist in texture with no soft or mushy attributes which are good indicators that decomposition is present.

3. Color – Shall be indicative to that of live freshly caught and processed squid. It is important to note if the squid/calamari has any discoloration. This is a good indicator that decomposition is present.
Sampling

A) Check the condition of the product for any temperature related issues when pulling samples. Also, make any necessary notation of the condition, and temperatures from the trailer/container being unloaded.

B) In order to pull the accurate number of samples, please refer to the BSF Q.C. Sampling Plan. Samples shall be taken from random locations from multiple pallets. It is also important that different production date codes be sampled and evaluated.

Packaging

Check the condition of the outer and inner packaging material for ineffective packaging materials and defective workmanship that will contribute to a loss of shelf-life or dehydration. Deficiencies would include punctures in wrapping and poly bags/vac packs, weak cardboard, vacuum packs not sealed properly and poly bags not folded over the product to prevent dehydration.

Inspect the packaging and product for temperature abuse using the following guidelines:

1) Wet cardboard or the condition of refrozen wet cardboard
2) Master cases or inner packaging that is severely stuck together and difficult to separate.
3) Excessive frost on product
4) Loss of glaze on product
5) Product is pliable
6) I.Q.F. Clumping: product is stuck together with accumulated frozen liquid in the bag
7) Objectionable odors
8) Discolored glaze that has been refrozen
Inspection Methodology for Fin Fish – continued

Labeling

Master cases and inner packs shall be checked for the following information: All information shall be recorded on the inspection worksheets.

1) Product Description
2) Item Number (master/inner)
3) Lot Number
4) Brand
5) Country of Origin
6) Method of Production
7) Packer and/or distributor
8) Pack weight with units e.g. (Net wt. 40lbs 4x10lbs)
9) Date Codes e.g. (Production date codes, Best By, Sell By)
10) Shipment Number
11) UPC (master/inner) – must be scanned and verified to be correct
12) Nutritional Information
13) Ingredients
14) Cooking Instructions
15) Allergen Statement

Also, record on the inspection sheet the dimensions of the master case (L x W x H), pallet count, and number of cases within the lot.
IQF Inspection

A) Physical Inspection

1. Record the **Gross Weight** of the master case or inner pack with all contents (cardboard box, packaging material, and product with glaze on).

2. Open master/inner case to examine the overall quality of the product to ensure that there is no dehydration or decomposition present. There is a “zero tolerance” for the presence of any dehydration/decomposition.

3. At this point the net weight may also be calculated using the following calculation.

\[
Net \ weight = Gross \ weight - (All \ packaging \ material)
\]

4. For Sub-Sample, randomly select six fish/fillets which should be approximately one to two pounds for subsample and record weight in the (Glaze On) section of the worksheet.

5a). IQF – Place fish/fillets in a No 8 sieve and remove all visible glaze and let drain for 2 minutes at a 30° angle. (Please note that optimum water temperature should be between 70°F & 80°F). After the 2 minute drain, remove fish/fillets from sieve and record weight in the (Glaze Off) section of the inspection worksheet.

5b). Breaded fillets – Place breaded fillets evenly across the bottom portion of No 8 sieve and remove all breading from fillets in the subsample using the spray method. (Please note that optimum water temperature should be between 70°F & 80°F). Once all breading has been removed let fillets drain for 2 minutes at a 30° angle. After the 2-minute drain, remove fillets from sieve and record weight in the (Glaze Off) section of the inspection worksheet.

6. With fish/fillets thawed, de-glazed, or breading removed from the subsample the following calculations can be made.

\[
Calculated \ Net \ Wt. = \frac{Sub \ Sample \ Glaze \ Off \ wt. \ lbs.}{Sub \ Sample \ Glaze \ On \ wt. \ lbs.} \times \ Net \ wt. \ lbs.
\]

\[
% \ Glaze = \frac{(Glaze \ On \ wt. \ lbs. - Glaze \ Off \ wt. \ lbs.)}{Glaze \ On \ wt. \ lbs.} \times \ 100
\]

\[
% \ Breading^* = \frac{(Bread \ On \ wt. \ lbs. - Breading \ Off \ wt. \ lbs.)}{Bread \ on \ wt. \ lbs.} \times \ 100
\]

Sizing – Randomly select six fish/fillets and weight/record the weight in ounces. *Unless otherwise stated in the product description, always record sizes in ounces.*

Please note industry standard on straight ounce grade portions and steaks are generally offered in only even number grades I.E. 4, 6, 8, 10 etc. is equal to the following size ranges 4 = 3/5, 6 = 5/7, 8 = 7/9, 10 = 9/11 etc.
B) Appearance Inspection (Observe and Document the following appearance defects). Please note any of the following defects.

- Excess Skin on Skinless Fillets
- Bone Cartilage in Boneless Fillets
- Parasites
- IQF (Clumping/Married)
- Yellowing of Meat Due to Aging
- Meat Discoloration (Green Bellies)
- Bruises
- Workmanship (Trims, Cuts, & Portions)
- Breaded Fillets (Clumping/Married)
- Dehydration Spots.

C) Organoleptic Inspection (Please refer to the Sensory Quality Indicators guide)

1. **Odor/Flavor** – Shall be that of freshly caught and processed fish with no sour, sickly sweet, or ammonia attributes. Fish shall also be free from the following odors/flavors.

   - Sour, Ammonia
   - Geosmin (muddy/grass)
   - Old Freezer odor/flavors
   - Chemicals

2. **Texture** – Shall be firm and moist in texture with no soft or mushy attributes which are good indicators that decomposition is present.

3. **Color** – Shall be indicative to that of live freshly caught and processed fish. It is important to note if the fish have any discoloration. This is a good indicator that decomposition is present.
Inspection Methodology for Fin Fish – continued

Fillet Cuts

- Whole Cut Fillet
- Natural Cut Fillet
- One Cut Fillet
- Chunk
Salmon Fillet Trim Guide

Standard Fillet Trimming A-E

Trim A
- Backbone, bellybone off

Trim B
- Backbone, bellybone off
- Back fins off
- Collar bone off
- Belly fat, fins off

Trim C
- Backbone, bellybone off
- Back fins off
- Collar bone off
- Belly fat, fins off
- Pinbone out

Trim D
- Backbone, bellybone off
- Back fins off
- Collar bone off
- Belly fat, fins off
- Pinbone out
- All belly off
- Tail piece off
- Fully trimmed

Trim E
- Backbone, bellybone off
- Back fins off
- Collar bone off
- Belly fat, fins off
- Pin bone out
- All belly off
- Tail piece off
- Fully trimmed
- Skin off
Inspection Methodology for Frog Legs

**Sampling**

A) Check the condition of the product for any temperature related issues when pulling samples. Also, make any necessary notation of the condition, and temperatures from the trailer/container being unloaded.

B) In order to pull the accurate number of samples, please refer to the BSF Q.C. Sampling Plan. Samples shall be taken from random locations from multiple pallets. It is also important that different production date codes be sampled and evaluated.

**Packaging**

Check the condition of the outer and inner packaging material for ineffective packaging materials and defective workmanship that will contribute to a loss of shelf-life or dehydration. Deficiencies would include punctures in wrapping and poly bags/ vac packs, weak cardboard, vacuum packs not sealed properly and poly bags not folded over the product to prevent dehydration.

Inspect the packaging and product for temperature abuse using the following guidelines:

1) Wet cardboard or the condition of refrozen wet cardboard

2) Master cases or inner packaging that is severely stuck together and difficult to separate.

3) Excessive frost on product

4) Loss of glaze on product

5) Product is pliable

6) I.Q.F. Clumping: product is stuck together with accumulated frozen liquid in the bag

7) Objectionable odors

8) Discolored glaze that has been refrozen
Labeling

Master cases and inner packs shall be checked for the following information. All information shall be recorded on the inspection worksheets.

1) Product Description
2) Item Number (master/inner)
3) Lot Number
4) Brand
5) Country of Origin
6) Method of Production
7) Packer and/or distributor
8) Pack weight with units e.g. (Net wt. 40lbs 4x10lbs)
9) Date Codes e.g. (Production date codes, Best By, Sell By)
10) Shipment Number
11) UPC (master/inner) – must be scanned and verified to be correct
12) Nutritional Information
13) Ingredients
14) Cooking Instructions
15) Allergen Statement

Also, record on the inspection sheet the dimensions of the master case (L x W x H), pallet count, and number of cases within the lot.
IQF Inspection

A) Physical Inspection

1. Record the Gross Weight of the inner case with all contents (cardboard box, packaging material, and product with glaze on).

2. Open inner case to examine the overall quality of the product to ensure that there is no dehydration or decomposition present. There is a “zero tolerance” for the presence of any dehydration/decomposition.

3. At this point the Count can be obtained while removing the poly wrap from each frog.

4. Once all wrap has been removed from the frogs the Net Weight may be recorded on the inspection worksheet (Frogs with glaze on).

5a). Place frog legs in a No 8 sieve and remove all visible glaze and let drain for 2 minutes at a 30° angle (Please note that optimum water temperature should be between 70°F & 80°F). After the 2 minute drain, remove frogs from sieve and record as the Deglazed Net Weight.

\[
\% \text{ Glaze} = \left( \frac{\text{Glaze On wt. lbs.} - \text{Glaze Off wt. lbs.}}{\text{Glaze On Wt. lbs.}} \right) \times 100
\]

\[
\text{Count per Pound} = \frac{\text{Number of Whole Frogs}}{\text{Deglazed Net Wt.}} \times 1 \text{ lb.}
\]

Frog Sizing – Based on the following count ranges.

<table>
<thead>
<tr>
<th>Count per lb.</th>
<th>Count per lb.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 to 4 count per lb.</td>
<td>8 to 10 count per lb.</td>
</tr>
<tr>
<td>4 to 6 count per lb.</td>
<td>10 to 12 count per lb.</td>
</tr>
<tr>
<td>6 to 8 count per lb.</td>
<td>12 to 14 count per lb.</td>
</tr>
</tbody>
</table>
B) Appearance Inspection (Observe and Document the following appearance defects).
Please note any of the following defects.

- Excessive Skin
- Excessive Membrane
- Parasites
- Toes Trimmed
- Yellowing of Meat Due to Aging
- Meat Discoloration
- Excessive Blemished
- Workmanship (Trims, Miscues)
- Saddle Removed
- Dehydration Spots

C) Organoleptic Inspection *(Please refer to the Sensory Quality Indicators guide)*

1. **Odor/Flavor** – Shall be that of freshly harvested frogs with no objectionable odors. Frogs shall also be free from the following odors/flavors.

   - Sour, Ammonia
   - Eosin (muddy/grass)
   - Old Freezer odor/flavors
   - Chemicals

2. **Texture** – Shall be firm and moist in texture with no soft or mushy attributes which are good indicators that decomposition is present.

3. **Color** – Shall be indicative to that of live freshly harvested and processed frogs. It is important to note if the flesh has any discoloration. This is a good indicator that decomposition may be present.
Items Needed for Analysis

- Moisture Machine
- Aluminum Pans
- Glass Fiber pads (that fit the moisture machine)
- Knife and Cutting Board (for cubing samples)
- Blender or food processor (for homogenization)
- No. 8 Sieve
- Timer
- Small spatula (for spreading sample onto aluminum pan)
Moisture Inspection

1. Randomly select five fillets from each shipment.

2. Turn on OHAUS Moisture Analyzer and allow instrument to warm up and calibrate.

3. Remove all packaging and glaze from fillets. Let drain for 2 minutes.

4. Cube fillets into ½ inch squares and add to blender and cover with lid.
Inspection Methodology for Moisture – continued

5. Blend and homogenize to a creamy consistency.

6. Using the moisture balance, tare aluminum pan and glass fiber pad. (Left)

7. Remove glass fiber pad and add approximately 10g to 12g of homogenized sample. (Right)

8. Remove sample tray from balance and use small spatula to spread sample evenly across aluminum pan.
**Inspection Methodology for Moisture – continued**

9. Once sample is spread then place glass fiber pad over sample and smooth over sample gently with finger.

10. Place sample tray onto tarred balance, close lid and record starting weight.

11. Push start and run sample. Allow for 45 min to 1 hour for each sample. Be careful not to bump table or moisture reader. Wait for the beep.

12. Once finished, record finish weight, % solids, and percent moisture.
Inspection Methodology for Moisture – continued

Tips

• Be careful not to bump table or moisture reader during the analysis.

• Important to spread sample evenly. Open areas can cause cracking and separation which gives an incomplete analysis.

• If unsure of readings, a “Trail Test” can be performed using three grams of water. The finished weight should be zero grams with 100% moisture. See instructions manual for details.

• Please refer to instructions manual for any issues.