

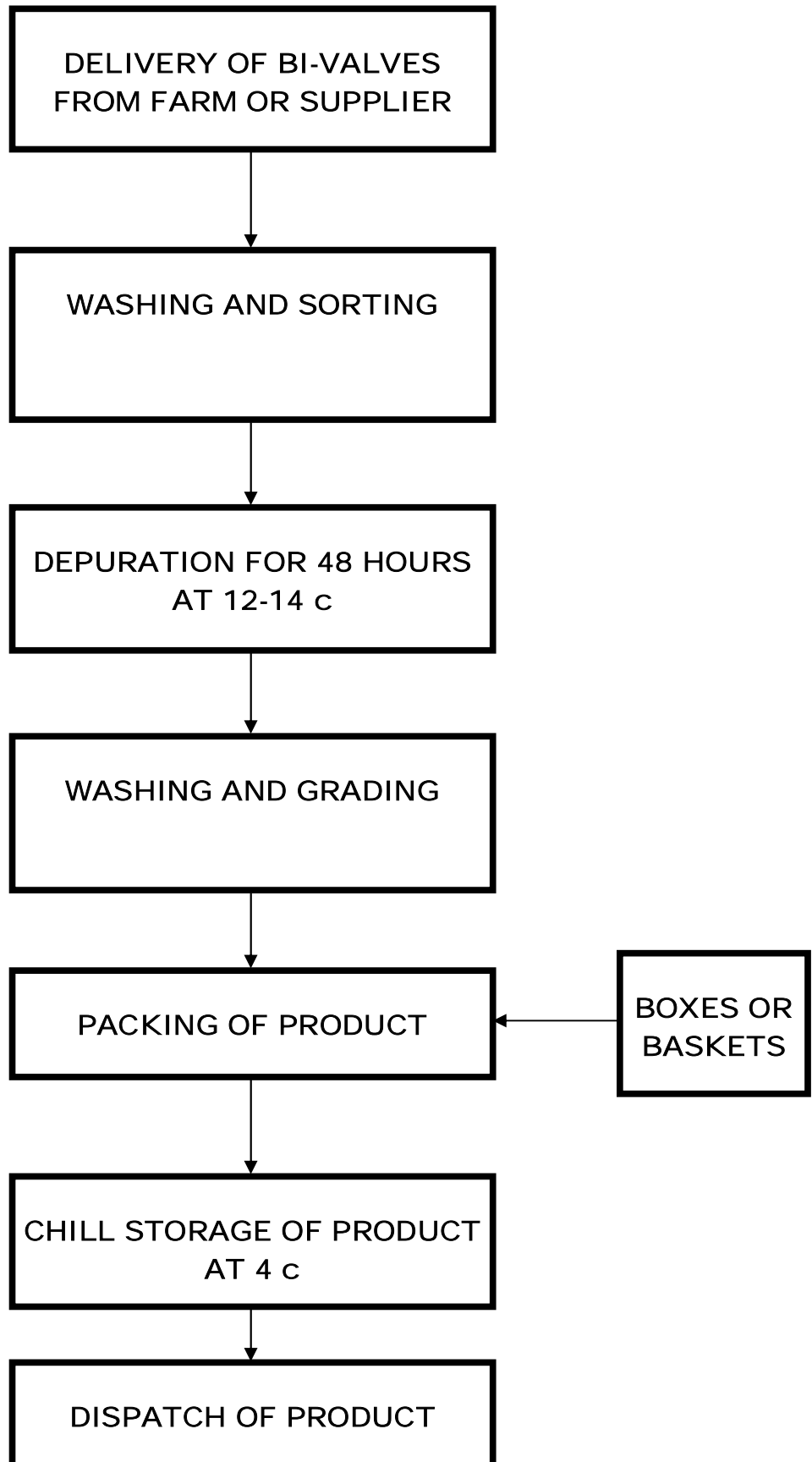


**HACCP**

**Hazard Analysis System**

INTRODUCTION

**FLOW DIAGRAM  
FOR  
FRESH BI-VALVE PROCESSING**

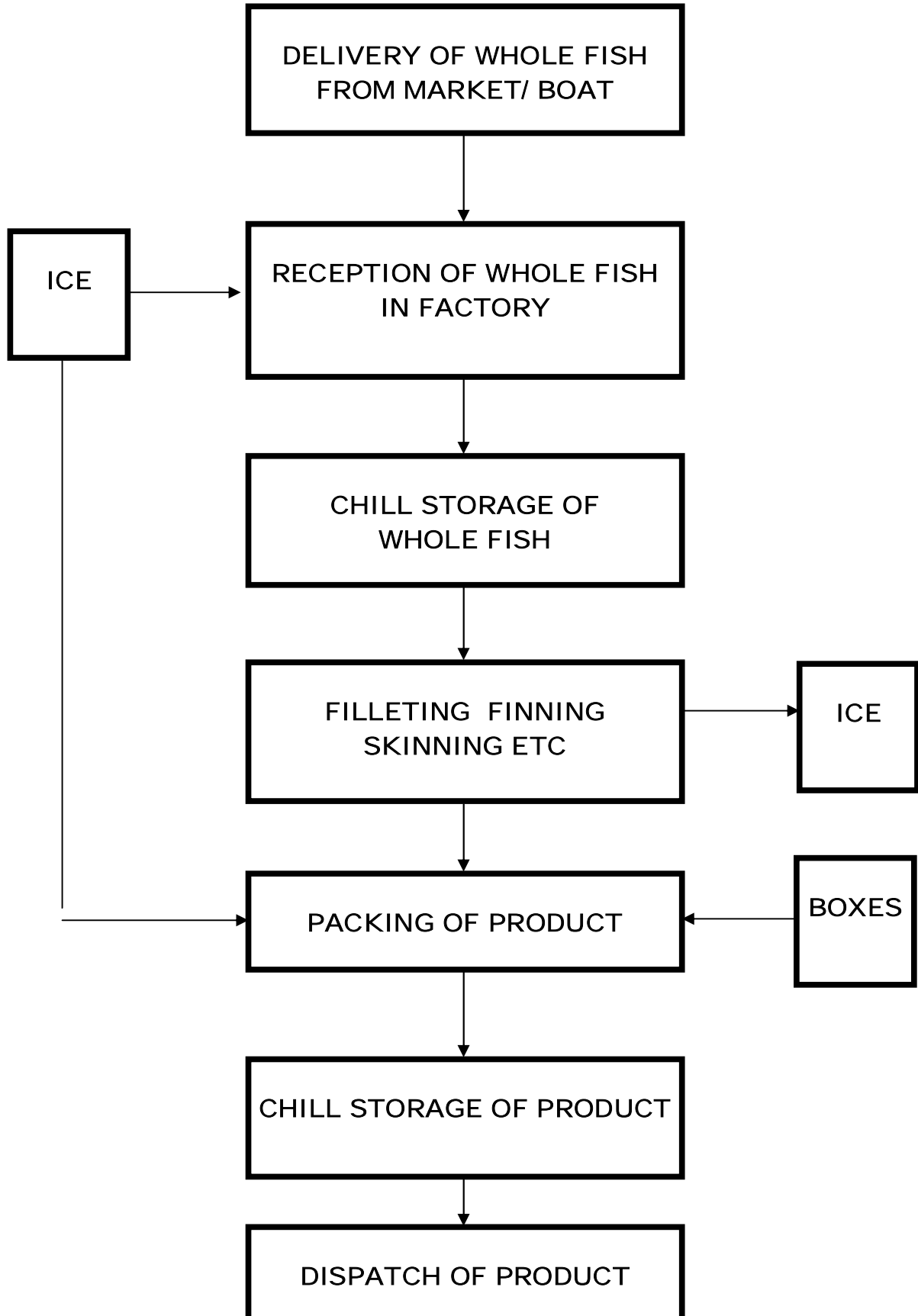


## HAZARDS MONITORING AND PREVENTATIVE ACTIONS

PROCESS STAGE	HAZARD	PREVENTATIVE ACTION and MONITORING
1	<u>DELIVERY OF BI-VALVES FROM FARM OR SUPPLIER</u>  High Temperatures  Contamination  Poor Quality	Transport quickly to factory  Keep vehicles clean – follow Cleaning Schedule Keep <u>Bi-valves</u> covered  <u>Do not use poor quality and use reputable supplier</u>
	<u>WASHING &amp; SORTING</u>  Contamination  <u>Dead Bi-Valves</u>	<u>Change water Daily</u> Keep area clean and tidy – clean down when clear <b>Follow Cleaning Schedule</b>  <u>Dispose of dead or damaged to certified trade waste</u>
3	<u>DEPURATION</u>  Temperatures  Contamination  <u>Records</u>	Check <u>temperatures daily</u> – <u>record</u> results on Log  Keep clean – follow Cleaning Schedule Keep <u>system well</u> maintained <u>Keep all batches recorded on daily log sheet</u>
4	<u>WASHING AND GRADING</u>  <u>Equipment</u>  Contamination and Foreign Bodies  <u>Quality</u>	<u>Change water Daily</u> Keep premises, work surfaces and equipment clean - <b>Follow Cleaning Schedule</b> Keep premises, work surfaces and equipment well maintained <b>Follow Staff Hygiene and Work Rules</b> Ensure all cleaning chemicals are removed from work areas  Check quality Discard any poor <u>quality or Dead fish to a certified trade waste</u>
5	PACKING  <u>Contamination</u>	Store boxes in clean, dry surroundings Check boxes are clean, undamaged and free from foreign bodies just before packing begins
6	CHILL STORAGE OF PRODUCTS  High Temperatures  Contamination	<b>Check fish product temperatures <u>daily</u> – record results on Weekly Log</b> Keep chill store doors closed Leave boxes of processed <u>Bi-Valves</u> in chill until ready for dispatch <b>Keep chill store clean – following Cleaning Schedule</b>  Keep chill store well maintained
7	DISPATCH  High Temperatures	Keep processed fish in chill until ready for dispatch Load <u>boxes without delay</u> onto dispatch vehicle  Protect boxes from birds, animals and the elements Ensure dispatch vehicles are clean Load boxes <u>without delay</u> onto dispatch vehicles

INTRODUCTION

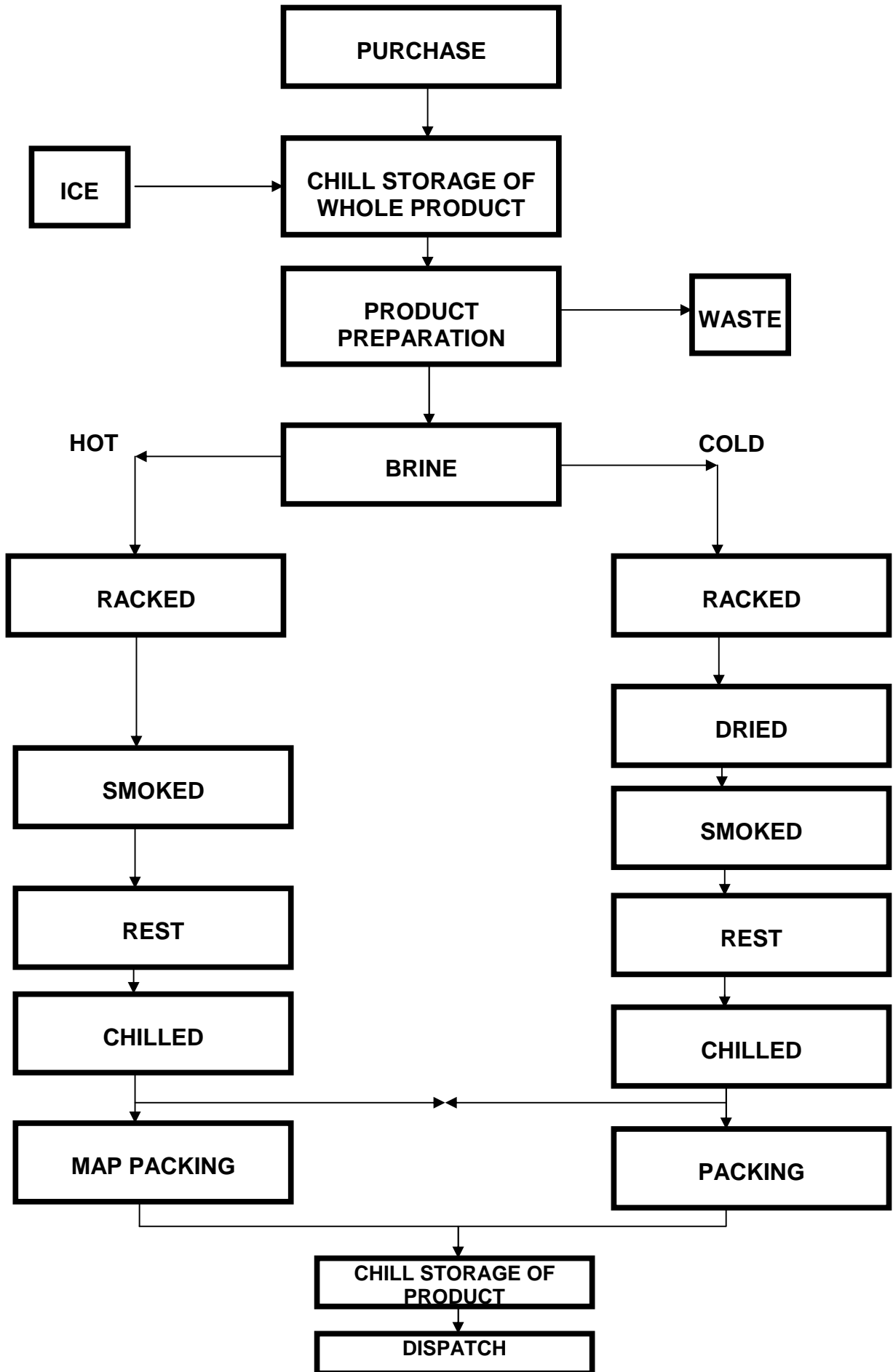
**FLOW DIAGRAM  
FOR  
FRESH FISH PROCESSING**



## HAZARDS MONITORING AND PREVENTATIVE ACTIONS

PROCESS STAGE	HAZARD	PREVENTATIVE ACTION and MONITORING
1	PURCHASE AND DELIVERY FROM BOAT OR MARKET	<p>High Temperatures Transport fish quickly to factory</p> <p>Contamination Keep vehicles clean – follow Cleaning Schedule Keep fish covered</p> <p>Poor Quality Fish <u>Do not use poor quality fish and use reputable supplier</u></p>
	RECEPTION IN FACTORY	<p>High Temperatures <b>Check fish temperatures – record results on Weekly Log</b> Re-ice if above +2°C and place quickly in chill</p> <p>Contamination Keep reception area clean and tidy – clean down when clear <b>Follow Cleaning Schedule</b> Keep reception area well maintained Protect fish from birds, animals and the elements</p> <p>Poor Quality Fish <b>Check whole fish quality – record results on Weekly Log</b> <u>Dispose of any poor quality fish to certified trade waste</u></p>
3	CHILLED STORAGE OF WHOLE FISH	<p>High Temperatures Check fish <u>temperatures daily – record</u> results on Weekly Log Re-ice if above +2°C Keep chill store doors closed</p> <p>Contamination Keep chill store clean – follow Cleaning Schedule Keep chill store well maintained Store whole raw fish separately from processed products</p>
4	FILLETING FINNING SKINNING ETC	<p>High Temperatures Leave fish in chill until needed for processing Do not leave un-iced fish or fish products lying about the factory. Add ice to boxes of new fish products and place in chill.</p> <p>Contamination and Foreign Bodies Keep premises, work surfaces and equipment clean - <b>Follow Cleaning Schedule</b> Check fish and fillets for worms Keep premises, work surfaces and equipment well maintained <b>Follow Staff Hygiene and Work Rules</b> Ensure all cleaning chemicals are removed from work areas and that fish is not contaminated by diesel oil</p> <p>Check quality of fish before processing Discard any poor quality fish or fillets</p>
5	PACKING	<p>High Temperatures Pack processed fish, add ice, and place boxes in chill</p> <p>Store polystyrene boxes in clean, dry surroundings Check boxes are clean, undamaged and free from foreign bodies just before packing begins</p>
6	CHILL STORAGE OF FISH PRODUCTS	<p>High Temperatures <b>Check fish product temperatures <u>daily</u> – record results on Weekly Log</b> <u>Re-ice fish products if ice is not covering fish</u> Keep chill store doors closed Leave boxes of processed fish in chill until ready for dispatch <b>Keep chill store clean – following Cleaning Schedule</b></p> <p>Contamination Keep chill store well maintained</p>
7	DISPATCH	<p>High Temperatures Keep processed fish in chill until ready for dispatch Load <u>boxes without delay</u> onto dispatch vehicle</p> <p>Protect boxes from birds, animals and the elements Ensure dispatch vehicles are clean Load boxes <u>without delay</u> onto dispatch vehicles</p>

# FLOW DIAGRAM FOR PRODUCT SMOKING



**HAZARDS MONITORING AND PREVENTATIVE ACTIONS -  
PRODUCT SMOKING (1)**

PROCESS STAGE		HAZARD	PREVENTATIVE ACTION and MONITORING
1	PURCHASE AND DELIVERY FROM OWN BOATS & MARKET	High Temperatures Contamination Poor Quality Fish	Transport fish <u>without delay</u> to factory Keep vehicles clean – follow Cleaning Schedule Keep fish covered <u>Do not use poor quality fish and use reputable supplier</u>
2	RECEPTION IN FACTORY	High Temperatures Contamination Poor Quality Fish	<b>Check fish temperatures – record results on Weekly Log</b> Re-ice if above +2°C and place quickly in chill Keep reception area clean and tidy – clean down when clear <b>Follow Cleaning Schedule</b> Keep reception area well maintained Protect fish from birds, animals and the elements <b>Check whole fish quality – record results on Weekly Log</b> Discard any poor quality fish
3	CHILL STORAGE OF WHOLE FISH	High Temperatures Contamination	<b>Check fish <u>temperatures daily</u>– record results on Weekly Log</b> Re-ice if above +2°C Keep chill store doors closed Keep chill store clean - <b>follow Cleaning Schedule</b> Keep chill store well maintained <u>Store whole raw fish separately from processed products to prevent cross contamination</u>
4	FILLETING FINNING SKINNING etc	High Temperatures Contamination and Foreign Bodies Poor Quality Fish	Leave fish in chill until needed for processing Do not leave un-iced fish or fish products lying about the factory Add ice to boxes of new fish products and place in chill Keep premises, work surfaces and equipment clean - <b>Follow Cleaning Schedule</b> Check Fish and fillets for worms Keep premises, work surfaces and equipment well maintained <b>Follow Staff Hygiene and Work Rules</b> Ensure all cleaning chemicals are removed from work areas <u>and that</u> fish is not contaminated by diesel oil Check quality of fish before processing Discard any poor quality fish or fillets
5	BRINING	Contamination and Foreign Bodies Multiplication and Outgrowth of Microbiological Organisms	Ensure salt for brine production is free from impurity and stored in sealed containers when not in use Use only potable water for brine production Ensure brine concentrations are sufficient and comply with customer specification Do not leave product outside refrigeration <u>for any longer than necessary</u> prior to brining <u>Do not re-use brine mix discard after use</u>
6	(a) RACKING  (b) RACKING AND DRYING (cold smoke)	Cross Contamination Outgrowth of Microbiological Organisms	Keep racking clean – <b>follow Cleaning Schedule</b>  Do not hold on <u>racking longer than 24 hours</u> – <b>follow appropriate logging sheets</b>

**HAZARDS MONITORING AND PREVENTATIVE ACTIONS -  
PRODUCT SMOKING (2)**

PROCESS STAGE		HAZARD	PREVENTATIVE ACTION and MONITORING
7	(a) HOT SMOKING	Survival of Pathogenic Microbiological Organism	Ensure that smoker is preheated to <u>minimum 90 Celsius</u> – record temperatures on smoking control logs  Ensure that product is cooked for a minimum of sufficient time to reach the <u>CRITICAL LIMIT record</u> details on smoking control logs
		Contamination	Ensure smoke is generated from non contaminated wood sources – obtain supplier guarantee of quality Store unused wood chippings away from smokers
	(b) COLD SMOKING	Survival of Pathogenic Microbiological Organisms	Ensure product is smoked for sufficient length of time to (a) stabilize the product (b) to customer requirements – <b>record details on smoking control logs</b>
		Contamination	See hot smoking actions
8	RESTING	Outgrowth of Surviving Microbiological Organisms	<u>Ensure that product is kept outside refrigeration for no longer than necessary</u>  Keep smoked product separate from raw materials Keep smoked products away from sawdust and chemicals
		Cross Contamination	
9	CHILLING	Outgrowth of Surviving Microbiological Organisms	Return product to refrigeration if not for immediate packing  <u>Store whole raw fish separately from processed products to prevent cross contamination</u> Keep chill store clean – <b>follow Cleaning Schedules</b> Keep chill store well maintained
		Contamination	
10	(a) MAP PACKING	Outgrowth of Surviving Microbiological Organisms	Ensure that map packing machine is functioning correctly and is <u>serviced</u> regularly
		Contamination	Ensure that both map packaging and packer are clean – <b>follow Cleaning Schedule</b>
	(b) PACKING	Outgrowth of Surviving Microbiological Organisms	Ensure that packed product is returned to refrigeration without delay
		Contamination	Store packaging materials in clean, dry, surroundings Check packaging is clean, undamaged and free from foreign bodies prior to packing
11	<u>DISPATCH</u>	High Temperatures	Keep processed fish in chill until ready for dispatch Load boxes quickly onto dispatch vehicles
		Contamination	Protect boxes from birds, animals and the elements Ensure dispatch vehicles are clean Load boxes quickly onto dispatch vehicles

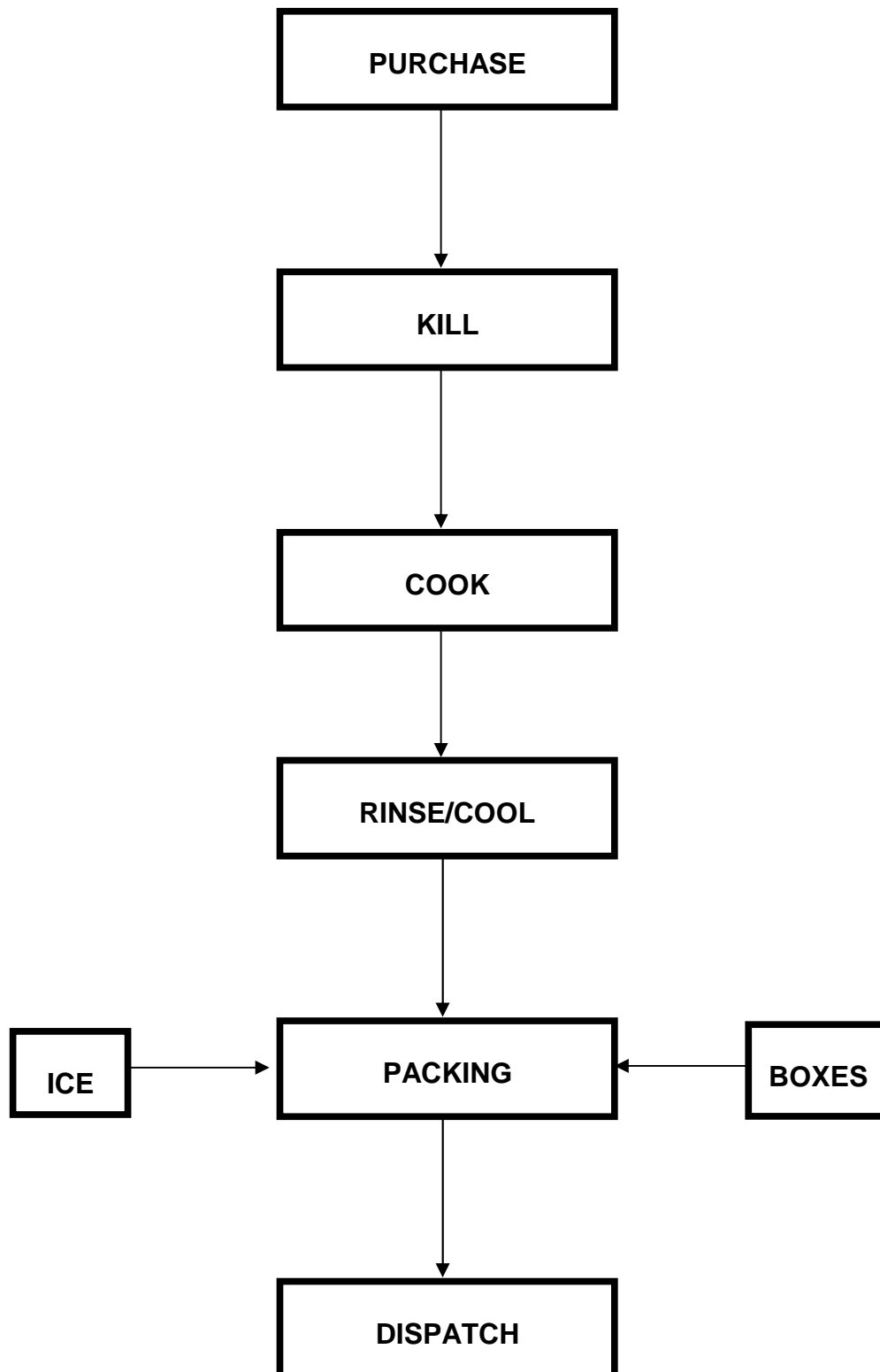
## Process Schedule

### OPERATING CRITICAL LIMITS

SPECIES	SIZE (maximum)			BRINING (minimum)		SMOKING (minimum)	COOKING (minimum)		DRYING (minimum)
	thick (in)	len (in)	width (in)	stren. deg (sal)	time (hrs)	total process time (hrs)	time (min)	temp (C)	weight loss (%)
Slamo Salar ( Salmon)	1.25	30	8	100%	4	24	na	20	17
Salmo Trutta (Trout)	2.5	11	3	70%	1	5	60	80*	23
Gadus morhua (Cod)	1.75	30	8	70%	0.20	5	na	20	15
Melanogrammus aeglefinus (Haddock)	1.75	28	7	70%	0.20	5	na	20	15
Clupea harengus (Herring) Kippers	1.75	12	3	70%	0.20	8	na	20	15
Scomber Scombrus (Mackerel)	2.25	15	3.25	70%	1	5	60	80*	20
Sprattus sprattus (Sprat)	0.80	5	1.0	70%	0.10	5	60	80*	25
Merlangius merlangus (Whiting)	1.25	18	5	70%	1	5		80*	23
Crassedulis Gigas (Oyster)	120	Gram		70%	0.10		7	92*	17

\* Denoted critical Point

# FLOW DIAGRAMS FOR CRAB/ LOBSTER PROCESSING



**HAZARDS MONITORING AND PREVENTATIVE ACTIONS  
CRAB PROCESSING**

<b>PROCESS STAGE</b>		<b>HAZARD</b>	<b>PREVENTATIVE ACTION and MONITORING</b>
1	PURCHASE AND DELIVERY FROM OWN BOATS & MARKET	Adverse Environment	Transport <u>Shellfish without delay to factory</u>
		Contamination	Keep Boxes clean – follow Cleaning Schedule
		Poor Quality Crab	<u>Do not use poor quality fish and use reputable supplier</u>
2	KILL	Contamination	Keep killing implements clean – follow Cleaning Schedules Reject any diesel contaminated Shellfish
		Poor Quality Crab	Reject all crab that has died naturally Reject any light/white crabs
3	COOK	Survival of Pathogenic Microbiological Organisms	Provide adequate time and <u>temperature to cook</u> Record results on Time/Temp Cooking Log
4	RINSE/COOL	Outgrowth of Pathogenic Microbiological Organisms	<u>Ensure time outside chill storage is kept to a minimum of 5 Minutes</u>
		Cross Contamination	Ensure use of only potable water for product rinse <u>Store whole raw fish separately from processed products to prevent cross contamination</u>
5	PACKING	Outgrowth of Pathogenic Microbiological Organisms	Pack shellfish quickly, add ice and return to chill storage until <u>dispatch</u>  Store packaging materials in clean dry surroundings Check boxes are clean, undamaged and free from foreign bodies just before packing begins Ensure ice is generated from a potable water supply
6	<u>DISPATCH</u>	Outgrowth of Pathogenic Microbiological Organisms	Keep cooked product in chill until ready for dispatch Load <u>boxes without delay</u> onto dispatch vehicle  Protect boxes from birds, animals and the elements Ensure dispatch vehicles are clean – <b>follow Cleaning Schedules</b>

# PEST REPORT POLICY

## 1. **Rats and Mice**

The following occurrences must be brought to the attention of the Manager without delay:-

- (a) droppings (if recent they will be shiny and soft)
- (b) footprints in dust
- (c) gnawing marks and damage (in boxes for example)
- (d) smear marks (grease shed from the fur of animals onto contact surfaces such as walls)
- (e) holes and nesting sites
- (f) runs in uncut undergrowth
- (g) the animals themselves, either dead or alive

## 2. **Birds: seagull's pigeon's sparrows**

The following occurrences must be brought to the attention of the manager without delay

- (a) the presence of birds either dead or alive within the factory
- (b) droppings
- (c) nests

## 3. **Flies**

The following occurrences must be brought to the attention of the manager without delay:

- (a) the discovery of eggs, maggots or pupae
- (b) malfunction of any fly killing devices

## PEST CONTROL POLICY

Maldon Oyster & seafood LLP recognize the importance of pest control within the food industry and further, identify the following important reasons for pest control:-

1. to prevent the spread of disease;
2. to prevent wastage of food;
3. to prevent damage;
4. to comply with the law.

To that end Maldon Oyster & Seafood LLP ensure that:-

- (a) the layout, design and construction of our premises are such that they protect against external sources of pest contamination
- (b) all foods are adequately protected from the risk of contamination;
- (c) adequate procedures are in place to ensure pests are controlled, professional advice and help being sought in the event of the discovery of any infestation;
- (d) adequate instruction is given to all staff requiring them to report any potential infestations.

Routine inspection for pests is undertaken in-house and is undertaken at regular intervals (normally at a minimum frequency of every 6 weeks).

A record of such inspection is kept/provided.

# PEST CONTROL RECORD

Areas to be examined:

1. Fish preparation Area
2. Fish Packing Area
3. Refuse Stores
4. Toilets
5. Offices
6. Exterior of the premises
7. All other areas (specify)

**Pest include all flying insects, crawling insects and rodents**

Pest Control Contact      YES/NO

Contract Last Serviced? .....

DATE	AREA EXAMINED	PEST IDENTIFIED	ACTION TAKEN	INITIALS

Signed by Manager/Owner: .....

Date: .....

## TEMPERATURE CONTROL POLICY

Maldon Oyster & seafood LLP have identified the need for temperature control within its business and as a result undertakes to monitor the temperature of all fish held within its premises.

More specifically it will monitor the temperatures of fish and fish products at the following points in its operation.

- (a) Receipt of fish at factory it not to be either immediately processed or transferred to refrigeration.
- (b) Daily whilst held in refrigeration (both chilled and frozen) either prior to processing or prior to dispatch.
- (c) Whilst undergoing any cooking processes.
- (d) During transported delivery using the company's own vehicles.

The following temperatures shall be deemed to be acceptable:-

- (a) Refrigerated transport vehicles (own)
  - (i) Fridge transport 0-4°C
  - (ii) Freezer transport no warmer than -18°C

It shall be the duty of the management and all staff as designated to both monitor and record on the appropriate log sheets the temperatures achieved for each identified monitoring site.

The following sites are identified as points to be monitored and further each site has identified for it those persons responsible for undertaking the monitoring at that site.

<b>SITE</b>	<b>RESPONSIBLE PERSON(S)</b>
Cold Store	Maurice Edgington
Smoke Room	Sean Jackson
Packing and Depuration Room	Maurice Edgington
Freezer Room	Maurice Edgington
Vehicle (AU54 AU5)	Sean Jackson

In the event of any monitored temperatures exceeding those previously stipulated as acceptable it shall be the responsibility of the monitor to report the abnormal temperature to the management.

# WEEKLY INTAKE LOG – TEMPERATURE AND GRADE

Week Commencing: .....

	TEMP	GRADE	SIGNED/COMMENTS
<b>MONDAY</b>			
<b>TUESDAY</b>			
<b>WEDNESDAY</b>			
<b>THURSDAY</b>			
<b>FRIDAY</b>			
<b>SATURDAY</b>			

FISH SHOULD BE BETWEEN 0°C AND +4°C

GRADES ARE:

E FOR EXTRA

A FOR GOOD

B FOR POOR

UNFIT FOR HUMAN CONSUMPTION



# WEEKLY TEMPERATURE LOG – VEHICLE

WEEK COMMENCING: .....

VEHICLE REGISTRATION: .....

	START TEMP °C	FINISH TEMP °C	DRIVER (Print Names)	SIGNED
MONDAY				
TUESDAY				
WEDNESDAY				
THURSDAY				
FRIDAY				
SATURDAY				

Stored products should be at 0°C – 4°C in refrigerated transport

Stored products should be at -18°C – or colder in freezer transport

Ensure all products are covered, to prevent quality loss arising from freezer burn and cross contamination

# DAILY CLEANING SCHEDULE/RECORD SHEET

Month Beginning: .....

Item	Method & Materials	Equipment	Special Precautions	Persons Responsible	Date	Checker's Initials

Signed by Manager/Owner: .....

Date: .....

## WEEKLY CLEANING SCHEDULE/RECORD SHEET

Month Beginning: .....

Item	Methods & Materials	Equipment	Special Precautions	Persons Responsible	Date	Checker's Initials
					Week 1	
					Week 2	
					Week 3	
					Week 4	

Signed by Manager/Owner: .....

Date: .....





## **STAFF HYGIENE AND WORK RULES**

### **TO BE OBSERVED BOTH IN THE FACTORY AND AT ANY AUCTION MARKETS**

1. All staff must wear clean protective clothing, including hats and hairnets (hats and hairnets not necessary at auction markets).
2. Hats and hairnets must completely enclose the hair.
3. Outdoor clothes must not be worn in work or storage areas.
4. Staff must not wear watches or loose jewellery.
5. Staff must not eat or drink, additionally spitting is totally forbidden.
6. Staff must not wear strong perfumes or aftershaves.
7. Staff must wash and dry their hands each time they enter work areas, and after visits to the toilet.
8. Staff must not lick fingers, blow noses etc while handling fish.
9. Staff must inform management if they are suffering from vomiting, diarrhoea, other stomach upsets, infectious diseases, skin complaints or cuts.

**I have read the Company's rules and agree to abide by them**

Signed: .....

Date: .....

Print Name: .....

Reviewed: .....