

# **MyHACCP Study: Chicken stuffed with prawns and garlic in a wild mushroom and walnut sauce**

**Business name:**

This document was created using the MyHACCP web tool.

<http://myhaccp.food.gov.uk>

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## Management commitment

I am the management and can confirm that I am committed to food safety management based on HACCP.

# Terms of reference

This linear HACCP plan covers:

**Chicken with prawns and garlic in a wild mushroom and walnut sauce that will be cooked prior to consumption, packed in a heat sealed CPET tray that is dual ovenable.**

It will start at **Raw materials** through to **Despatch**.

The HACCP plan will cover final product safety and will look at the following hazards:

## Physical

- Metal
- Wood splinters
- Glass and brittle plastic
- Flexible plastic
- Plasters
- Stones
- Shell
- Insects
- Paper/board
- Hair
- Bones
- Feathers
- Compost soil
- Vegetative matter

## Chemical

- Ingredient dependent Phyco-toxins
- Veterinary Drugs
- Heavy metals
- Other microbiologically produced toxins
- Cleaning & sanitising chemicals
- Mycotoxins

## Biological

- *Salmonella*
- *Listeria* sp.
- *Escherichia coli*
- *Clostridium botulinum*
- *Clostridia perfringens*
- *Staphylococcus aureus*
- *Bacillus* spp.
- *Campylobacter*

## Allergens

- Milk
- Crustaceans
- Cereals containing gluten
- Sulphur dioxide and sulphites
- Nuts

The company has in place a number of effective prerequisite programmes, including:

- Supplier approval
- Packaging
- Incoming material specifications
- Finished product specification
- Training (incl. training needs analysis, job descriptions)
- Contract services (i.e. waste/laundry)
- Pest Control
- Glass and plastic management
- Calibration
- Distribution
- Product recall
- Document control
- Audit schedule (incl. HACCP/internal audits)
- Customer complaints
- Tracking non-conformances
- Microbiological control
- Traceability
- Utilities (air, water, energy)
- Equipment suitability, cleaning and maintenance
- Measures to prevent cross-contamination

- Cleaning and sanitising
- Personnel hygiene and employee facilities
- Rework
- Warehousing
- Product information / consumer awareness
- Contamination control
- Return to work

The location of the above documents is:

In prerequisite file in the office.

# The HACCP team

Role	Name	Training	Qualifications	Experience
HACCP lead	Lorraine Taylor <i>(internal)</i>	Advanced HACCP, FSSC 22000 Lead Auditor, Internal Auditing Principles and Practices Course, Root Cause Analysis Course.	MSc Food Science, BSc (Hons) Microbiology.	2 years as a Technical Manager (Bakery), 4 years working in quality assurance (raw and cooked meat), 1 year of which spent dealing with customer complaints.
To provide specialist knowledge (chemistry focussed)	Mandy Smith - Ahead of the game consultancy <i>(external)</i>	Advanced HACCP trained, Advanced Food Safety trained.	MSc Chemistry, BSc (Hons) Applied chemistry, A'Levels - Chemistry, Biology and Maths	5 years as HACCP team leader for a large multi-national company, 4 years as a Technical Manager, 3 years as a Microbiology and Analytical Chemistry Laboratory Manager
Production Operative - knowledge of the process	Louise Taylor <i>(internal)</i>	Intermediate HACCP trained	Btec - Food Science	5 years experience working with the company covering goods in, production and despatch.

We confirm that the team have sufficient skills (scientific/technical knowledge and HACCP expertise) to ensure that the HACCP study will be effective.

# Product description and intended use

## Ingredients

Raw chicken breast (Chicken UK), garlic puree (All u need ingredients), cooked prawns (Fish and shellfish supplies), chopped walnuts (Go nuts), dried wild mushrooms (Natures best), milk (Moomoo dairies), cream (Moomoo dairies), flour (Mills flour), pepper (All u need ingredients), salt (All u need ingredients).

## Physical properties

12% NaCl pH 4.5

## Processing

Raw chicken brease, garlic puree and cooked prawns all cooked (>85degrees celcius) then blast chilled (<5 degrees celcius). All remaining ingredients (walnuts, mushrooms,milk,cream,flour,pepper and salt) boiled (>95 degree celcius)

## Packaging

Packed into CPET trays which are heat sealed. Fibre board card sleeve.

## Storage

Final product will be stored and despatched between 2-5 degrees celcius. From production to merchandised in retail store = 2-3 days.

## Shelf life of product

3 days

## Storing, handling and preparation advice

Storage of the product on site or at the customers or consumer should be under refrigeration 2-5 degrees celcius). The product is to be heated. Instructions are : Oven - Temperature:Fan 170°C, Gas 5, 190°C. Remove outer packaging. Decant into an ovenproof dish. Place on a baking tray in the centre of a pre-heated oven for 20 minutes. Stir well before serving. The cooking guidelines will also state all appliances vary these are guidelines only. Ensure food is piping hot throughout before serving. Microwave - Remove outer packaging. Pierce film lid several times. Heat on full power for 650 Watt(6mins 30 seconds), 750 Watt(5mins ), 800W(4 minutes), 900W (3 minutes 30 seconds). Stir well before serving. Ensure product is piping hot.

## Intended Use

**Name of the product:** Chicken with prawns and garlic in a wild mushroom and walnut sauce

The product is suitable for consumption by the general public.

The product is suitable for the young.

The product is suitable for the elderly.

The product is suitable for pregnant ladies.

The product is suitable for the immunosuppressed / immunocompromised.

We have considered the likely abuse / unintended use of the product by the consumer in the following ways:

A consumer could potentially eat the product without heating it first. For this reason the packaging will clearly state that the product is to be heated either in an oven or microwave. The shelf-life of the product is 3 days. The label will state that the product is to be eaten fresh and should not be frozen.

# Process flow and confirmation

We have completed a flow diagram covering all steps in the manufacturing process of this product.



A copy of our flow diagram can be obtained from the following location:

HACCP plan file - Process Flow Diagram

## On-site confirmation of flow diagram

**Karen Taylor** has confirmed that our flow diagram is correct.

Every process step is identified in our flow diagram.

The flow diagram is an accurate representation of the process from start to finish.

The flow diagram is correct for all shifts (e.g. days, nights and weekend).

The flow diagram is correct during all seasonal variations.

The HACCP lead has signed off and dated the flow diagram as being correct.

The following members of our organisation are responsible for making changes to the flow diagram and storing out of date versions:

- Lorraine Taylor

## Identify and list potential hazards

Step No.	Step Name	Biological	Chemical	Physical	Allergens
1	Raw chicken breast - Intake	Pathogens Toxigenic bacteria	Cleaning Chemicals Vetinary residues, Hormones, Environmental chemicals Sulphites	Chicken bones Chicken feathers	Sulphur dioxides/sulphites
2	Garlic puree - intake	Vegetative pathogens (presence) Vegetative pathogens (growth) Toxigenic bacteria	Mineral contamination of oil	Metal Glass and brittle plastic Plasters Soft plastic	
3	Cooked prawns	Pathogens (presence) Pathogens (growth) Toxigenic bacteria (growth)	Toxins	Shells Metal Glass and brittle plastic Soft plastic	Crustacean - prawns

Step No.	Step Name	Biological	Chemical	Physical	Allergens
4	Chopped walnuts - intake	Vegetative pathogens	Mycotoxins	Shells Metal Glass and brittle plastic Soft plastic	Nuts - walnuts
5	Dried wild mushrooms - intake	Vegetative pathogens	Toxic varieties	Stones Compost soil Vegetative matter Packaging - card	
6	Milk	Vegetative pathogens Spore forming pathogens	Cleaning chemicals	Metal Packaging - soft plastic, card	Milk
7	Cream	Vegetative pathogens (presence) Spore forming pathogens (growth)	Cleaning chemicals	Metal Packaging - soft plastic, card	Milk
8	Flour	Vegetative pathogens	Mycotoxins	Stones Stored product insects Packaging - paper Wood	Cereals containing gluten - wheat

Step No.	Step Name	Biological	Chemical	Physical	Allergens
9	Pepper	Vegetative pathogens	Environmental chemicals (pesticides, herbicides, heavy metal)		Stones Insects
10	Salt			Packaging - soft plastic	
11	Store, 2 degrees celcius	Vegetative pathogens (growth) Vegetative pathogens (introduction)		Brittle plastic (introduction)	
12	Ambient storage	Vegetative pathogens (growth) Vegetative pathogens (introduction)		Brittle plastic (introduction)	
13	Store, 2 degrees celcius	Toxigenic bacteria (growth) Toxigenic psychrotrophic pathogens (growth)		Brittle plastic (introduction)	
14	Ambient store	Vegetative pathogens (growth) Vegetative pathogens (introduction)		Brittle plastic (introduction)	
15	Ambient store	Vegetative pathogens (growth) Vegetative pathogens (introduction)		Brittle plastic (introduction)	
16	Store 2 degrees celcius	Vegetative pathogens (growth) Vegetative pathogens (introduction)		Brittle plastic (introduction)	

Step No.	Step Name	Biological	Chemical	Physical	Allergens
17	Store, 2 degrees celcius	Toxigenic bacteria (growth)		Brittle plastic (introduction)	
18	Ambient store	Vegetative pathogens (growth) Vegetative pathogens (introduction)		Brittle plastic (introduction)	
19	Ambient store	Vegetative pathogens (growth) Vegetative pathogens (introduction)		Brittle plastic (introduction)	
20	Ambient store	Vegetative pathogens (introduction)		Brittle plastic (introduction)	
21	Sieve flour			Stones Metal	
22	Sieve			Stones Metal	
23	Slice pocket in chicken	Environmental contaminants (introduction) e.g. Listeria, S.aureus.		Metal	
24	Mix garlic and prawns	Toxigenic bacteria (growth)		Metal	
25	Mix cream, milk, flour, salt and perpper in hopper				
26	Stuff with garlic/prawn mix	Toxigenic bacteria (growth of)			

Step No.	Step Name	Biological	Chemical	Physical	Allergens
27	Bring to boil (>95 degrees celcius) and add walnuts and wild mushrooms	Vegetative pathogens (survival of) e.g. Campylobacter, Salmonella.			
28	Place on tray	Toxigenic bacteria (growth of)			
29	Place on conveyor of continuous oven	Vegetative pathogens (introduction)			
30	Cook	Vegetative pathogens (survival of) e.g. Campylobacter, Salmonella.			
31	Pump from low risk	Environmental contaminants (introduction) e.g. Listeria, S.aureus.			
32	Remove cooked product (>85 degrees celcius) in high risk	Environmental contaminants (introduction) e.g. Listeria, S.aureus.			
33	Receive hot in high risk portable hopper	Environmental contaminants (introduction) e.g. Listeria, S.aureus.			
34	Place rack on trolley and blast chill (<5 degrees celcius, 3h)	Spore forming pathogens (growth) e.g. Clostridium perfringens.			

<b>Step No.</b>	<b>Step Name</b>	<b>Biological</b>	<b>Chemical</b>	<b>Physical</b>	<b>Allergens</b>
35	Place individual breasts in product container and place on line	Environmental contaminants (introduction)e.g. Listeria, S.aureus.			
36	Automatic deposit of hot sauce (>70 degrees celcius) onto chicken breast	Toxigenic bacteria (growth)			
37	Heat seal film to pack	Pathogens (introduction)			
38	Metal detect		Metal (survival)		
39	Blast chill (<5 degrees celcius, 3h)	Toxigenic bacteria (growth)			
40	Store 2-5 degrees celcius	Toxigenic bacteria (growth)			
41	Despatch at 2-5 degrees celcius	Toxigenic bacteria (growth)			

# Severity scores

## 1. Raw chicken breast - Intake

Hazard	Hazard Description	Severity	Likelihood	Significance
Pathogens	Vegetative pathogens e.g. Salmonella, Campylobacter due to presence from the supplier	3	3	9
Toxigenic bacteria	Growth of toxigenic bacteria e.g. Staph aureus due to temperature abuse	3	1	3
Cleaning Chemicals	Presence of cleaning chemicals from the supplier	2	1	2
Vetinary residues,	Presence of veterinary residues from the supplier	1	1	1
Hormones,	Presence of hormones from the supplier	1	1	1
Environmental chemicals	Presence of environmental chemicals from the supplier e.g. pesticides, herbicides, heavy metals.	1	1	1
Sulphites	Presence of sulphites from the supplier	1	1	1
Chicken bones	Presence of chicken bones in chicken from supplier.	3	2	6
Chicken feathers	Presence of feathers in chicken from supplier.	2	2	4

## 2. Garlic puree - intake

Hazard	Hazard Description	Severity	Likelihood	Significance
Vegetative pathogens (presence)	Presence of vegetative pathogens in garlic from supplier.	3	2	6
Vegetative pathogens (growth)	Growth of vegetative pathogens in garlic puree due to temperature abuse from the supplier.	3	2	6
Toxigenic bacteria	Growth of toxigenic bacteria e.g. <i>C. botulinum</i> , <i>B. cereus</i> due to temperature abuse.	3	2	6
Mineral contamination of oil	Presence of contaminated mineral oil in garlic puree from supplier.	2	1	2
Metal	Presence of metal from supplier.	3	1	3
Glass and brittle plastic	Presence of glass and brittle plastic from the supplier.	3	1	3
Plasters	Presence of plasters in product from supplier.	1	1	1
Soft plastic	Presence of soft plastic in product from supplier.	1	1	1
Sulphur dioxides/sulphites	Presence of sulphur dioxides in garlic puree from supplier	2	1	2

### 3. Cooked prawns

Hazard	Hazard Description	Severity	Likelihood	Significance
Pathogens (presence)	Presence of pathogens from supplier	3	1	3
Pathogens (growth)	Growth of pathogens due to temperature abuse	3	1	3
Toxigenic bacteria (growth)	Growth of toxigenic bacteria due to temperature abuse	3	1	3
Toxins	Presence of toxins in prawns from supplier	3	1	3
Shells	Presence of shells in prawns.	2	2	4
Metal	Presence of metal from supplier.	3	1	3
Glass and brittle plastic	Presence of glass and brittle plastic in prawns from supplier.	3	1	3
Soft plastic	Presence of soft plastic in prawns from supplier.	2	1	2
Crustacean - prawns	Prawns from supplier	3	3	9

### 4. Chopped walnuts - intake

Hazard	Hazard Description	Severity	Likelihood	Significance
Vegetative pathogens	Presence of vegetative pathogens e.g. Salmonella from the supplier.	3	1	3
Mycotoxins	Presence of mycotoxins in walnuts from the supplier.	3	2	6
Shells	Presence of shells in walnuts from the supplier.	2	2	4
Metal	Presence of metal in walnuts from the supplier.	3	1	3
Glass and brittle plastic	Presence of glass and brittle plastic in the walnuts from the supplier.	3	1	3
Soft plastic	Presence of soft plastic in walnuts from the supplier.	3	1	3
Nuts - walnuts	Walnuts from supplier	3	3	9

## 5. Dried wild mushrooms - intake

Hazard	Hazard Description	Severity	Likelihood	Significance
Vegetative pathogens	Presence of vegetative pathogens in dried mushrooms from supplier	3	1	3
Toxic varieties	Presence of toxins in varieties which could accidentally be delivered from the supplier.	3	1	3
Stones	Presence of stones in mushrooms from the supplier.	2	1	2
Compost soil	Presence of compost soil in mushrooms from the supplier.	2	2	4

Hazard	Hazard Description	Severity	Likelihood	Significance
Vegetative matter	Presence of vegetative matter from the supplier.	1	2	2
Packaging - card	Presence of card in mushrooms from the supplier.	1	1	1

## 6. Milk

Hazard	Hazard Description	Severity	Likelihood	Significance
Vegetative pathogens	Presence of vegetative pathogens in milk from supplier.	3	1	3
Spore forming pathogens	Growth of spore forming pathogens due to inadequate temperature control.	3	1	3
Cleaning chemicals	Presence of cleaning chemicals in milk from CIP process at the dairy.	3	1	3
Metal	Presence of metal in milk from the supplier.	3	1	3
Packaging - soft plastic, card	Presence of packaging including soft plastic and card in milk from the supplier.	1	1	1
Milk	Allergenic product (milk) from the supplier.	3	3	9

## 7. Cream

Hazard	Hazard Description	Severity	Likelihood	Significance
Vegetative pathogens (presence)	Presence of vegetative pathogens from the supplier.	3	2	6
Spore forming pathogens (growth)	Growth of spore forming pathogens due to temperature abuse.	3	1	3
Cleaning chemicals	Presence of cleaning chemicals in cream from supplier.	2	1	2
Metal	Presence of metal in cream from supplier.	3	1	3
Packaging - soft plastic, card	Presence of packaging in cream from supplier.	1	1	1
Milk	Allergenic product from supplier.	3	3	9

## 8. Flour

Hazard	Hazard Description	Severity	Likelihood	Significance
Vegetative pathogens	Presence of vegetative pathogens in flour from supplier (e.g. <i>Bacillus cereus</i> and <i>Salmonella</i> ).	3	1	3
Mycotoxins	Presence of mycotoxins in flour from the supplier.	3	1	3
Stones	Presence of stones in flour from the supplier.	2	1	2
Stored product insects	Presence of stored product insects in flour from the supplier.	1	2	2

Hazard	Hazard Description	Severity	Likelihood	Significance
Packaging - paper	Presence of packaging (paper) in flour from supplier.	1	1	1
Wood	Presence of wood from wooden pallets (used to help transport 25KG sacks of flour) from supplier.	2	2	4
Cereals containing gluten - wheat	Presence of allergen gluten. Flour from the supplier is made from wheat containing gluten.	3	3	9

## 9. Pepper

Hazard	Hazard Description	Severity	Likelihood	Significance
Vegetative pathogens	Presence of vegetative pathogens in pepper from supplier e.g. Salmonella due to inadequate antimicrobial treatment, improper handling.	3	2	6
Environmental chemicals (pesticides, herbicides, heavy metal)	Presence of environmental chemicals (pesticides, herbicides, heavy metals) in pepper from supplier.	2	1	2
Stones	Presence of stones in pepper from supplier.	2	1	2
Insects	Presence of insects in pepper from supplier.	1	1	1

## 10. Salt

Hazard	Hazard Description	Severity	Likelihood	Significance
Packaging - soft plastic	Presence of soft plastic packaging in salt from supplier.	1	1	1

## 11. Store, 2 degrees celcius

Hazard	Hazard Description	Severity	Likelihood	Significance
Vegetative pathogens (growth)	Growth of vegetative pathogens due to temperature abuse in store.	3	1	3
Vegetative pathogens (introduction)	Introduction of vegetative pathogens due to cross contamination from people or equipment.	3	2	6
Brittle plastic (introduction)	Introduction of brittle plastic from surroundings.	3	2	6

## 12. Ambient storage

Hazard	Hazard Description	Severity	Likelihood	Significance
Vegetative pathogens (growth)	Growth of vegetative pathogens due to incorrect storage once opened.	3	1	3

Hazard	Hazard Description	Severity	Likelihood	Significance
Vegetative pathogens (introduction)	Introduction of vegetative pathogens from equipment or personnel.	3	1	3
Brittle plastic (introduction)	Introduction of brittle plastic from storage equipment or personnel.	3	2	6

13. Store, 2 degrees celcius

Hazard	Hazard Description	Severity	Likelihood	Significance
Toxigenic bacteria (growth)	Growth of toxigenic pathogens due to temperature abuse in store.	3	1	3
Toxigenic psychrotrophic pathogens (growth)	Growth of toxigenic psychrotrophic bacteria if shelf life is exceeded.	3	2	6

14. Ambient store

Hazard	Hazard Description	Severity	Likelihood	Significance
Vegetative pathogens (growth)	Growth of moulds (Aspergillus) due to long storage time of opened packaging. (Nitrogen flushed MA packed).	3	1	3
Vegetative pathogens (introduction)	Cross contamination of vegetative pathogens due to equipment and personnel.	3	2	6

Hazard	Hazard Description	Severity	Likelihood	Significance
Brittle plastic (introduction)	Introduction of brittle plastic from storage equipment or personnel.	3	2	6
15. Ambient store				
Hazard	Hazard Description	Severity	Likelihood	Significance
Vegetative pathogens (growth)	Growth of vegetative pathogens due to moisture in the atmosphere.	3	1	3
Vegetative pathogens (introduction)	Introduction of vegetative pathogens from cross contamination of equipment and personnel.	3	2	6
Brittle plastic (introduction)	Introduction of brittle plastic from storage equipment or personnel.	3	2	6
16. Store 2 degrees celcius				
Hazard	Hazard Description	Severity	Likelihood	Significance
Vegetative pathogens (growth)	Growth of vegetative pathogens due to temperature abuse.	3	1	3
Vegetative pathogens (introduction)	Introduction of vegetative pathogens from equipment or personnel.	3	2	6
Brittle plastic (introduction)	Introduction of brittle plastic from storage equipment.	3	2	6

17. Store, 2 degrees celcius

Hazard	Hazard Description	Severity	Likelihood	Significance
Toxigenic bacteria (growth)	Growth of toxigenic bacteria due to temperature abuse in store.	3	1	3
Brittle plastic (introduction)	Introduction of brittle plastic from equipment.	3	2	6

18. Ambient store

Hazard	Hazard Description	Severity	Likelihood	Significance
Vegetative pathogens (growth)	Growth of vegetative pathogens due to moisture in the atmosphere.	3	1	3
Vegetative pathogens (introduction)	Introduction of vegetative pathogens from equipment and personnel.	3	2	6
Brittle plastic (introduction)	Introduction of brittle plastic from storage equipment.	3	2	6

19. Ambient store

<b>Hazard</b>	<b>Hazard Description</b>	<b>Severity</b>	<b>Likelihood</b>	<b>Significance</b>
Vegetative pathogens (growth)	Growth of vegetative pathogens due to environmental conditions in the store e.g. high moisture levels.	3	1	3
Vegetative pathogens (introduction)	Introduction of vegetative pathogens from equipment or personnel.	3	2	6
Brittle plastic (introduction)	Introduction of brittle plastic from equipment.	3	1	3

#### 20. Ambient store

<b>Hazard</b>	<b>Hazard Description</b>	<b>Severity</b>	<b>Likelihood</b>	<b>Significance</b>
Vegetative pathogens (introduction)	Introduction of vegetative pathogens from equipment and personnel.	3	2	6
Brittle plastic (introduction)	Introduction of brittle plastic from lighting.	3	1	3

#### 21. Sieve flour

<b>Hazard</b>	<b>Hazard Description</b>	<b>Severity</b>	<b>Likelihood</b>	<b>Significance</b>
Stones	Survival of stones in flour due to incorrect or broken sieve.	2	2	4
Metal	Introduction of metal in flour due to broken sieve.	3	1	3

## 22. Sieve

Hazard	Hazard Description	Severity	Likelihood	Significance
Stones	Survival of stones in pepper or salt due to incorrect or broken sieve.	2	2	4
Metal	Introduction of metal in pepper or salt due to broken sieve.	3	1	3

## 23. Slice pocket in chicken

Hazard	Hazard Description	Severity	Likelihood	Significance
Environmental contaminants (introduction) e.g. Listeria, S.aureus.	Introduction of pathogens due to cross-contamination from equipment or personnel.	3	2	6
Metal	Introduction of metal due to a damaged/broken knife.	3	1	3

## 24. Mix garlic and prawns

Hazard	Hazard Description	Severity	Likelihood	Significance
Toxigenic bacteria (growth)	Growth of toxigenic bacteria due to temperature abuse.	3	2	6

25. Mix cream, milk, flour, salt and pepper in hopper

Hazard	Hazard Description	Severity	Likelihood	Significance
Metal	Introduction of metal from mixing blade.	3	1	3

26. Stuff with garlic/prawn mix

Hazard	Hazard Description	Severity	Likelihood	Significance
Toxigenic bacteria (growth of)	Growth of toxigenic bacteria due to temperature abuse.	3	2	6

27. Bring to boil (>95 degrees celcius) and add walnuts and wild mushrooms

Hazard	Hazard Description	Severity	Likelihood	Significance
Vegetative pathogens (survival of) e.g. Campylobacter, Salmonella.	Survival of pathogens due to inadequate heating of product.	3	2	6

28. Place on tray

Hazard	Hazard Description	Severity	Likelihood	Significance
Toxigenic bacteria (growth of)	Growth of toxigenic bacteria due to temperature abuse.	3	2	6

29. Place on conveyor of continuous oven

Hazard	Hazard Description	Severity	Likelihood	Significance
Vegetative pathogens (introduction)	Introduction of pathogens due to cross contamination from equipment and personnel.	3	2	6

30. Cook

Hazard	Hazard Description	Severity	Likelihood	Significance
Vegetative pathogens (survival of) e.g. Campylobacter, Salmonella.	Survival of pathogens due to inadequate cooking.	3	2	6

31. Pump from low risk

Hazard	Hazard Description	Severity	Likelihood	Significance
Environmental contaminants (introduction) e.g. Listeria, S.aureus.	Introduction of contaminants due to cross-contamination in line or in receiving vessel.	3	2	6

32. Remove cooked product (>85 degrees celcius) in high risk

Hazard	Hazard Description	Severity	Likelihood	Significance
Environmental contaminants (introduction) e.g. Listeria, S.aureus.	Introduction of contaminants due to cross-contamination from the environment and/or personnel.	3	2	6

33. Receive hot in high risk portable hopper

Hazard	Hazard Description	Severity	Likelihood	Significance
Environmental contaminants (introduction) e.g. Listeria, S.aureus.	Introduction of contaminants due to cross-contamination from equipment.	3	2	6

34. Place rack on trolley and blast chill (<5 degrees celcius, 3h)

Hazard	Hazard Description	Severity	Likelihood	Significance
Spore forming pathogens (growth) e.g. Clostridium perfringens.	Growth of spore forming pathogens (Cl.perfringens) due to inadequate chilling.	3	2	6

35. Place individual breasts in product container and place on line

Hazard	Hazard Description	Severity	Likelihood	Significance
Environmental contaminants (introduction)e.g. Listeria, S.aureus.	Introduction of pathogens from the environment and/or personnel.	3	2	6

36. Automatic deposit of hot sauce (>70 degrees celcius) onto chicken breast

Hazard	Hazard Description	Severity	Likelihood	Significance
Toxigenic bacteria (growth)	Growth of toxigenic bacteria due to temperature abuse (product not reaching 70 degrees celcius before being deposited onto chicken breast.	3	2	6

37. Heat seal film to pack

Hazard	Hazard Description	Severity	Likelihood	Significance
Pathogens (introduction)	Introduction of pathogens from packaging material.	3	2	6

38. Metal detect

Hazard	Hazard Description	Severity	Likelihood	Significance
Metal (survival)	Survival of metal due to failure of machine to detect or reject metal.	3	2	6

39. Blast chill (<5 degrees celcius, 3h)

Hazard	Hazard Description	Severity	Likelihood	Significance
Toxigenic bacteria (growth)	Growth of toxigenic bacteria due to temperature abuse in blast chill.	3	1	3

40. Store 2-5 degrees celcius

Hazard	Hazard Description	Severity	Likelihood	Significance
Toxigenic bacteria (growth)	Growth of toxigenic bacteria due to temperature abuse.	3	1	3

41. Despatch at 2-5 degrees celcius

Hazard	Hazard Description	Severity	Likelihood	Significance
Toxigenic bacteria (growth)	Growth of toxigenic bacteria due to temperature abuse.	3	1	3

The threshold, above which we consider the hazard to be 'significant' is: **6**

# Control Measures

Step No.	Step Name.	Hazard	Hazard Description	Control Measures
1	Raw chicken breast - Intake	Pathogens	Vegetative pathogens e.g. Salmonella, Campylobacter due to presence from the supplier	Supplier Approval see appropriate section in the prerequisite folder.
1	Raw chicken breast - Intake	Chicken bones	Presence of chicken bones in chicken from supplier.	Supplier Approval see appropriate section in the prerequisite folder.
2	Garlic puree - intake	Vegetative pathogens (presence)	Presence of vegetative pathogens in garlic from supplier.	Supplier Approval see appropriate section in the prerequisite folder.
2	Garlic puree - intake	Vegetative pathogens (growth)	Growth of vegetative pathogens in garlic puree due to temperature abuse from the supplier.	Control of chiller temperature.
2	Garlic puree - intake	Toxigenic bacteria	Growth of toxigenic bacteria e.g. Cl botulinum, B.cereus due to temperature abuse.	Supplier Approval see appropriate section in the prerequisite folder.
3	Cooked prawns	Crustacean - prawns	Prawns from supplier	Supplier Approval, allergen information declared.

Step No.	Step Name.	Hazard	Hazard Description	Control Measures
4	Chopped walnuts - intake	Mycotoxins	Presence of mycotoxins in walnuts from the supplier.	Supplier Approval see appropriate section in the prerequisite folder.
4	Chopped walnuts - intake	Nuts - walnuts	Walnuts from supplier	Supplier Approval, allergen information declared.
6	Milk		Allergenic product (milk) from the supplier.	Supplier Approval see appropriate section in the prerequisite folder, allergen information declared.
7	Cream		Presence of vegetative pathogens from the supplier.	Supplier Approval see appropriate section in the prerequisite folder.
7	Cream		Vegetative pathogens (presence)	Supplier Approval see appropriate section in the prerequisite folder.
7	Cream	Milk	Allergenic product from supplier.	Supplier Approval see appropriate section in the prerequisite folder. Allergen information declared.
8	Flour	Cereals containing gluten - wheat	Presence of allergen gluten. Flour from the supplier is made from wheat containing gluten.	Supplier Approval see appropriate section in the prerequisite folder. Allergen information declared.

Step No.	Step Name.	Hazard	Hazard Description	Control Measures
9	Pepper	Vegetative pathogens	Presence of vegetative pathogens in pepper from supplier e.g. Salmonella due to inadequate antimicrobial treatment, improper handling.	Supplier Approval see appropriate section in the prerequisite folder.
11	Store, 2 degrees celcius	Vegetative pathogens (introduction)	Introduction of vegetative pathogens due to cross contamination from people or equipment.	Cleaning schedule, staff training.
11	Store, 2 degrees celcius	Brittle plastic (introduction)	Introduction of brittle plastic from surroundings.	Glass and brittle plastic policy, training.
12	Ambient storage	Brittle plastic (introduction)	Introduction of brittle plastic from storage equipment or personnel.	Glass and brittle plastic policy, training.
13	Store, 2 degrees celcius	Toxigenic psychrotrophic pathogens (growth)	Growth of toxigenic psychrotrophic bacteria if shelf life is exceeded.	Limit of time from receipt of raw material to use.
14	Ambient store	Vegetative pathogens (introduction)	Cross contamination of vegetative pathogens due to equipment and personnel.	Cleaning schedule, training of personnel.
14	Ambient store	Brittle plastic (introduction)	Introduction of brittle plastic from storage equipment or personnel.	Glass and brittle plastic policy, training.
15	Ambient store	Vegetative pathogens (introduction)	Introduction of vegetative pathogens from cross contamination of equipment and personnel.	Cleaning schedule, training of personnel.

Step No.	Step Name.	Hazard	Hazard Description	Control Measures
15	Ambient store	Brittle plastic (introduction)	Introduction of brittle plastic from storage equipment or personnel.	Glass and brittle plastic policy, training.
16	Store 2 degrees celcius	Vegetative pathogens (introduction)	Introduction of vegetative pathogens from equipment or personnel.	Cleaning schedule, training of personnel.
16	Store 2 degrees celcius	Brittle plastic (introduction)	Introduction of brittle plastic from storage equipment.	Glass and brittle plastic policy, training.
17	Store, 2 degrees celcius	Brittle plastic (introduction)	Introduction of brittle plastic from equipment.	Glass and brittle plastic policy, training.
18	Ambient store	Vegetative pathogens (introduction)	Introduction of vegetative pathogens from equipment and personnel.	Cleaning schedule, training of personnel.
18	Ambient store	Brittle plastic (introduction)	Introduction of brittle plastic from storage equipment.	Glass and brittle plastic policy, training.
19	Ambient store	Vegetative pathogens (introduction)	Introduction of vegetative pathogens from equipment or personnel.	Cleaning schedule, training of personnel.
20	Ambient store	Vegetative pathogens (introduction)	Introduction of vegetative pathogens from equipment and personnel.	Cleaning schedule, training of personnel.
23	Slice pocket in chicken	Environmental contaminants (introduction) e.g. Listeria, S.aureus.	Introduction of pathogens due to cross-contamination from equipment or personnel.	Cleaning schedule, training of personnel.

Step No.	Step Name.	Hazard	Hazard Description	Control Measures
24	Mix garlic and prawns	Toxigenic bacteria (growth)	Growth of toxigenic bacteria due to temperature abuse.	Prawns are to be mixed within five minutes of removal from the chill store. Staff training.
26	Stuff with garlic/prawn mix	Toxigenic bacteria (growth of)	Growth of toxigenic bacteria due to temperature abuse.	Control of room temperature.
27	Bring to boil (>95 degrees celcius) and add walnuts and wild mushrooms	Vegetative pathogens (survival of) e.g. Campylobacter, Salmonella.	Survival of pathogens due to inadequate heating of product.	Cooking temperature.
28	Place on tray	Toxigenic bacteria (growth of)	Growth of toxigenic bacteria due to temperature abuse.	Control of room temperature.
29	Place on conveyor or continuous oven	Vegetative pathogens (introduction)	Introduction of pathogens due to cross contamination from equipment and personnel.	GHP, training.
30	Cook	Vegetative pathogens (survival of) e.g. Campylobacter, Salmonella.	Survival of pathogens due to inadequate cooking.	Cooking temperature and time of belt speed.
31	Pump from low risk	Environmental contaminants (introduction) e.g. Listeria, S.aureus.	Introduction of contaminants due to cross-contamination in line or in receiving vessel.	Scheduled cleaning.

Step No.	Step Name.	Hazard	Hazard Description	Control Measures
32	Remove cooked product (>85 degrees celcius) in high risk	Environmental contaminants (introduction) e.g. Listeria, S.aureus.	Introduction of contaminants due to cross-contamination from the environment and/or personnel.	Cleaning schedule, training of personnel.
33	Receive hot in high risk portable hopper	Environmental contaminants (introduction) e.g. Listeria, S.aureus.	Introduction of contaminants due to cross-contamination from equipment.	Cleaning schedule, training of personnel.
34	Place rack on trolley and blast chill (<5 degrees celcius, 3h)	Spore forming pathogens (growth) e.g. Clostridium perfringens.	Growth of spore forming pathogens (Cl.perfringens) due to inadequate chilling.	Blast chill, planned preventive maintenance.
35	Place individual breasts in product container and place on line	Environmental contaminants (introduction)e.g. Listeria, S.aureus.	Introduction of pathogens from the environment and/or personnel.	Cleaning schedule, training of personnel.
36	Automatic deposit of hot sauce (>70 degrees celcius) onto chicken breast	Toxigenic bacteria (growth)	Growth of toxigenic bacteria due to temperature abuse (product not reaching 70 degrees celcius before being deposited onto chicken breast).	Automatic deposit temperature setting to be set at 75 degrees celcius.
37	Heat seal film to pack	Pathogens (introduction)	Introduction of pathogens from packaging material.	Supplier Approval see appropriate section in the prerequisite folder.
38	Metal detect	Metal (survival)	Survival of metal due to failure of machine to detect or reject metal.	Metal detector checks, training.

# CCPs for significant hazards

For this study, we are using the Campden decision tree.

Step No.	Hazard	Control Measures	Decision Tree	CCP?
1	Pathogens	Supplier Approval see appropriate section in the prerequisite folder.	Q1: Yes Q2: N/a Q2a: N/a Q3: N/a Q4: N/a Q5: N/a	No
1	Chicken bones	Supplier Approval see appropriate section in the prerequisite folder.	Q1: Yes Q2: N/a Q2a: N/a Q3: N/a Q4: N/a Q5: N/a	No
2	Vegetative pathogens (presence)	Supplier Approval see appropriate section in the prerequisite folder.	Q1: Yes Q2: N/a Q2a: N/a Q3: N/a Q4: N/a Q5: N/a	No

Step No.	Hazard	Control Measures	Decision Tree	CCP?
2	Vegetative pathogens (growth)	Control of chiller temperature.	Q1: Yes Q2: N/a Q2a: N/a Q3: N/a Q4: N/a Q5: N/a	No
2	Toxigenic bacteria	Supplier Approval see appropriate section in the prerequisite folder.	Q1: Yes Q2: N/a Q2a: N/a Q3: N/a Q4: N/a Q5: N/a	No
3	Crustacean - prawns	Supplier Approval, allergen information declared.	Q1: Yes Q2: N/a Q2a: N/a Q3: N/a Q4: N/a Q5: N/a	No
4	Mycotoxins	Supplier Approval see appropriate section in the prerequisite folder.	Q1: Yes Q2: N/a Q2a: N/a Q3: N/a Q4: N/a Q5: N/a	No

Step No.	Hazard	Control Measures	Decision Tree	CCP?
4	Nuts - walnuts	Supplier Approval, allergen information declared.	Q1: Yes Q2: N/a Q2a: N/a Q3: N/a Q4: N/a Q5: N/a	No
6	Milk	Supplier Approval see appropriate section in the prerequisite folder, allergen information declared.	Q1: Yes Q2: N/a Q2a: N/a Q3: N/a Q4: N/a Q5: N/a	No
7	Vegetative pathogens (presence)	Supplier Approval see appropriate section in the prerequisite folder.	Q1: Yes Q2: N/a Q2a: N/a Q3: N/a Q4: N/a Q5: N/a	No
7	Milk	Supplier Approval see appropriate section in the prerequisite folder. Allergen information declared.	Q1: Yes Q2: N/a Q2a: N/a Q3: N/a Q4: N/a Q5: N/a	No

Step No.	Hazard	Control Measures	Decision Tree	CCP?
8	Cereals containing gluten - wheat	Supplier Approval see appropriate section in the prerequisite folder. Allergen information declared.	Q1: Yes Q2: N/a Q2a: N/a Q3: N/a Q4: N/a Q5: N/a	No
9	Vegetative pathogens	Supplier Approval see appropriate section in the prerequisite folder.	Q1: Yes Q2: N/a Q2a: N/a Q3: N/a Q4: N/a Q5: N/a	No
11	Vegetative pathogens (introduction)	Cleaning schedule, staff training.	Q1: Yes Q2: N/a Q2a: N/a Q3: N/a Q4: N/a Q5: N/a	No
11	Brittle plastic (introduction)	Glass and brittle plastic policy, training.	Q1: Yes Q2: N/a Q2a: N/a Q3: N/a Q4: N/a Q5: N/a	No

Step No.	Hazard	Control Measures	Decision Tree	CCP?
12	Brittle plastic (introduction)	Glass and brittle plastic policy, training.	Q1: Yes Q2: N/a Q2a: N/a Q3: N/a Q4: N/a Q5: N/a	No
13	Toxigenic psychrotrophic pathogens (growth)	Limit of time from receipt of raw material to use.	Q1: No Q2: Yes Q2a: No Q3: No Q4: Yes Q5: Yes	No
14	Vegetative pathogens (introduction)	Cleaning schedule, training of personnel.	Q1: Yes Q2: N/a Q2a: N/a Q3: N/a Q4: N/a Q5: N/a	No
14	Brittle plastic (introduction)	Glass and brittle plastic policy, training.	Q1: Yes Q2: N/a Q2a: N/a Q3: N/a Q4: N/a Q5: N/a	No

Step No.	Hazard	Control Measures	Decision Tree	CCP?
15	Vegetative pathogens (introduction)	Cleaning schedule, training of personnel.	Q1: Yes Q2: N/a Q2a: N/a Q3: N/a Q4: N/a Q5: N/a	No
15	Brittle plastic (introduction)	Glass and brittle plastic policy, training.	Q1: Yes Q2: N/a Q2a: N/a Q3: N/a Q4: N/a Q5: N/a	No
16	Vegetative pathogens (introduction)	Cleaning schedule, training of personnel.	Q1: Yes Q2: N/a Q2a: N/a Q3: N/a Q4: N/a Q5: N/a	No
16	Brittle plastic (introduction)	Glass and brittle plastic policy, training.	Q1: Yes Q2: N/a Q2a: N/a Q3: N/a Q4: N/a Q5: N/a	No

Step No.	Hazard	Control Measures	Decision Tree	CCP?
17	Brittle plastic (introduction)	Glass and brittle plastic policy, training.	Q1: Yes Q2: N/a Q2a: N/a Q3: N/a Q4: N/a Q5: N/a	No
18	Vegetative pathogens (introduction)	Cleaning schedule, training of personnel.	Q1: Yes Q2: N/a Q2a: N/a Q3: N/a Q4: N/a Q5: N/a	No
18	Brittle plastic (introduction)	Glass and brittle plastic policy, training.	Q1: Yes Q2: N/a Q2a: N/a Q3: N/a Q4: N/a Q5: N/a	No
19	Vegetative pathogens (introduction)	Cleaning schedule, training of personnel.	Q1: Yes Q2: N/a Q2a: N/a Q3: N/a Q4: N/a Q5: N/a	No

Step No.	Hazard	Control Measures	Decision Tree	CCP?
20	Vegetative pathogens (introduction)	Cleaning schedule, training of personnel.	Q1: Yes Q2: N/a Q2a: N/a Q3: N/a Q4: N/a Q5: N/a	No
23	Environmental contaminants (introduction) e.g. Listeria, S.aureus.	Cleaning schedule, training of personnel.	Q1: Yes Q2: N/a Q2a: N/a Q3: N/a Q4: N/a Q5: N/a	No
24	Toxigenic bacteria (growth)	Prawns are to be mixed within five minutes of removal from the chill store. Staff training.	Q1: No Q2: Yes Q2a: N/a Q3: No Q4: Yes Q5: Yes	No
26	Toxigenic bacteria (growth of)	Control of room temperture.	Q1: No Q2: Yes Q2a: N/a Q3: No Q4: Yes Q5: Yes	No

Step No.	Hazard	Control Measures	Decision Tree	CCP?
27	Vegetative pathogens (survival of) e.g. Campylobacter, Salmonella.	Cooking temperature.	Q1: No Q2: Yes Q2a: N/a Q3: Yes Q4: Yes Q5: No	Yes
28	Toxigenic bacteria (growth of)	Control of room temperature.	Q1: No Q2: Yes Q2a: N/a Q3: No Q4: Yes Q5: Yes	No
29	Vegetative pathogens (introduction)	GHP, training.	Q1: Yes Q2: N/a Q2a: N/a Q3: N/a Q4: N/a Q5: N/a	No
30	Vegetative pathogens (survival of) e.g. Campylobacter, Salmonella.	Cooking temperature and time of belt speed.	Q1: No Q2: Yes Q2a: N/a Q3: Yes Q4: Yes Q5: No	Yes

Step No.	Hazard	Control Measures	Decision Tree	CCP?
31	Environmental contaminants (introduction) e.g. Listeria, S.aureus.	Scheduled cleaning.	Q1: Yes Q2: N/a Q2a: N/a Q3: N/a Q4: N/a Q5: N/a	No
32	Environmental contaminants (introduction) e.g. Listeria, S.aureus.	Cleaning schedule, training of personnel.	Q1: Yes Q2: N/a Q2a: N/a Q3: N/a Q4: N/a Q5: N/a	No
33	Environmental contaminants (introduction) e.g. Listeria, S.aureus.	Cleaning schedule, training of personnel.	Q1: Yes Q2: N/a Q2a: N/a Q3: N/a Q4: N/a Q5: N/a	No
34	Spore forming pathogens (growth) e.g. Clostridium perfringens.	Blast chill, planned preventative maintenance.	Q1: No Q2: Yes Q2a: N/a Q3: Yes Q4: Yes Q5: No	Yes

Step No.	Hazard	Control Measures	Decision Tree	CCP?
35	Environmental contaminants (introduction)e.g. Listeria, S.aureus.	Cleaning schedule, training of personnel.	Q1: Yes Q2: N/a Q2a: N/a Q3: N/a Q4: N/a Q5: N/a	No
36	Toxigenic bacteria (growth)	Automatic deposit temperature setting to be set at 75 degrees celcius.	Q1: No Q2: Yes Q2a: N/a Q3: No Q4: Yes Q5: Yes	No
37	Pathogens (introduction)	Supplier Approval see appropriate section in the prerequisite folder.	Q1: Yes Q2: N/a Q2a: N/a Q3: N/a Q4: N/a Q5: N/a	No
38	Metal (survival)	Metal detector checks, training.	Q1: No Q2: Yes Q2a: N/a Q3: Yes Q4: Yes Q5: No	Yes

# Critical limits for the CCPs

The following critical limits have been established for the CCPs.

Step No.	Step Name.	Hazard	Critical limit	How was the critical limit determined?	Will the critical limit control the specific hazard?	Can the critical limit be measured or observed in real time?
27	Bring to boil (>95 degrees celcius) and add walnuts and wild mushrooms	Vegetative pathogens (survival of) e.g. Campylobacter, Salmonella.	Above 95 degrees celcius	See file in the office 'determining critical limits'. The file stores all records of how the critical limit was determined for this CCP.	Yes	Yes
30	Cook	Vegetative pathogens (survival of) e.g. Campylobacter, Salmonella.	>85 degrees celcius	See file in the office 'determining critical limits'. The file stores all records of how the critical limit was determined for this CCP.	Yes	Yes
34	Place rack on trolley and blast chill (<5 degrees celcius, 3h)	Spore forming pathogens (growth) e.g. Clostridium perfringens.	<5 degrees celcius in 3 hours	See file in the office 'determining critical limits'. The file stores all records of how the critical limit was determined for this CCP.	Yes	Yes

Step No.	Step Name.	Hazard	Critical limit	How was the critical limit determined?	Can the critical limit be measured or observed in real time?
38	Metal detect	Metal (survival)	Ability to detect and reject metal pieces (1.5mm Fe, 2.0mm Non Fe, 3mm SS)	See file in the office 'determining critical limits'. The file stores all records of how the critical limit was determined for this CCP.	Yes

# The HACCP Plan

Process step	Step no.	Hazard	Control measure	Critical limit	Monitoring procedures	Corrective action
Bring to boil (>95 degrees celcius) and add walnuts and wild mushrooms	27	Vegetative pathogens (survival of) e.g., Campylobacter, Salmonella.	Cooking temperature.	Above 95 degrees celcius	<p>Temperature probing of cooked product.</p> <p>Monitoring activity frequency: Three different samples (taken from different places) from every batch of product cooked.</p> <p>How the monitoring activities are carried out: Using calibrated thermometer 3, probe the product and record the temperature. If the temperature is less than 95 degrees celcius cook the product for longer. Repeat taking the temperature of samples at intervals determined by yourself until a temperature of &gt;95 degrees celcius is recorded.</p>	<p>Corrective action to be taken: If temperature is &lt;95 degrees celcius then cook the product for longer until &gt;95 degrees celcius is achieved.</p> <p>Personnel who have the authority to take the stated corrective action: All production operatives who are trained against corrective actions for this CCP, Aaron and Lorraine.</p> <p>All product will continue to be heated until the correct temperature is achieved.</p> <p>Actions for product produced when the CPP was out of control will be recorded in: N/A</p> <p>All personnel are trained and competent for performing the activities stated.</p> <p>Records of competency are maintained.</p>

# The HACCP Plan

Process step	Step no.	Hazard	Control measure	Critical limit	Monitoring procedures	Corrective action
Cook	30	Vegetative pathogens (survival of) e.g. Campylobacter, Salmonella.	Cooking temperature and time of belt speed.	>85 degrees celcius	<p>Temperature probing of cooked product.</p> <p>Monitoring activity frequency: After 30 minutes heating, then every 5 minutes until a recording of &gt;85 degrees is achieved.</p> <p>How the monitoring activities are carried out: Use calibrated temperature probe 2 to take the temperature of the product in the hopper.</p> <p>The following people are responsible for monitoring actions at this CCP: Production operative.</p> <p>The deputy is: Eugenie</p> <p>The results of monitoring are recorded: Sauce monitoring record sheet.</p> <p>Monitoring records will be checked and signed off by Aaron at the frequency of: Daily</p>	<p>Corrective action to be taken: If the temperature is &gt;80 but &lt;85 then stop the belt and rectify. Once rectified re-cook and probe the product. However, if temperature is &lt;80, stop production, remove all product, correct oven temperature or belt speed and recook to achieve temperature. The product that has been removed can not be at ambient for more than 5 minutes, if it is it must be disposed of following the product disposal procedure.</p> <p>Personnel who have the authority to take the stated corrective action: Eugenie, Aaron, Lorraine, Louise</p> <p>Any product that has been out of the oven (at ambient) for 5 minutes or more must be disposed of following the disposal procedure. Ref. DP Process Step 30, Cook.</p> <p>Actions for product produced when the CPP was out of control will be recorded in: On a corrective action note, reference will be made to this on the monitoring record sheet.</p> <p>All personnel are trained and competent for performing the activities stated.</p> <p>Records of competency are maintained.</p>

# The HACCP Plan

Process step	Step no.	Hazard	Control measure	Critical limit	Monitoring procedures	Corrective action
Place rack on trolley and blast chill (<5 degrees celcius, 3h)	34	Spore forming pathogens (growth) e.g. Clostridium perfringens.	Blast chill, planned preventative maintenance.	<5 degrees celcius in 3 hours	<p>Temperature probing of product.</p> <p>Monitoring activity frequency: Three hours after the product enters the blast chill.</p> <p>How the monitoring activities are carried out: Temperature probe the warmest spots in the chicken from 3 different trays on the rack.</p> <p>The following people are responsible for monitoring actions at this CCP: Mandy</p> <p>The deputy is: Andy</p> <p>The results of monitoring are recorded: Monitoring records - process step 34 Blast Chill</p> <p>Monitoring records will be checked and signed off by Aaron at the frequency of: Daily</p>	<p>Corrective action to be taken: If blast chill has not reached &lt;5 degrees celcius in 3 hours, immediately reduce the temperature setting of the blast chill and check air circulation setting is as per settings for Blast Chill Ref:SBC 1. All product since the last good check must be disposed of. Place this product in quarantine trays and store in Bay A.</p> <p>Personnel who have the authority to take the stated corrective action: Mandy, Andy, Lorraine, Aaron, Louise.</p> <p>All affected product will be disposed of in accordance with the disposal of product procedure for process step 34 Blast Chill (Ref: DP Blast Chill PS34).</p> <p>Actions for product produced when the CPP was out of control will be recorded in: On a corrective action note, reference will be made to this on the monitoring record sheet.</p> <p>All personnel are trained and competent for performing the activities stated.</p> <p>Records of competency are maintained.</p>

# The HACCP Plan

Process step	Step no.	Hazard	Control measure	Critical limit	Monitoring procedures	Corrective action
Metal detect	38	Metal (survival)	Metal detector checks, training.	Ability to detect and reject metal pieces (1.5mm Fe, 2.0mm Non Fe, 3mm SS)	<p>Metal detection checks.</p> <p>Monitoring activity frequency: Prior to start up, after line stoppages/brake downs and every hour during production plus end of product run and change of product.</p> <p>How the monitoring activities are carried out: Staff member to 'Follow Metal Detection Procedure'. In accordance with this procedure staff member will check that the metal detector is set for the product being manufactured. The metal detector will then be checked to ensure it can detect and reject the following test pieces:</p> <p>1.5mm Fe; 2.0mm Non-Fe; 3.0mm Stainless Steel.</p> <p>The following people are responsible for monitoring actions at this CCP: James The deputy is: Eugenie</p> <p>The results of monitoring are recorded: Monitoring records - Metal Detection Process Step 38</p> <p>Monitoring records will be checked and signed off by Aaron or Lorraine at the frequency of: Daily</p>	<p>Corrective action to be taken: If failure to detect test piece then stop products being put through the metal detector. Reset detector sensitivity. Call an engineer to investigate issue. The engineer will either call out the supplier of the metal detection unit or hand over back to production. If the latter occurs, checks must be carried out as per that detailed in the metal detection monitoring procedure (under the section start up following metal detection failure). Place all affected product since last good check in quarantine trays and place in Bay C. If an external engineer is called out then speak to Lorraine or Aaron for further details of what action to take.</p> <p>Personnel who have the authority to take the stated corrective action: James, Eugenie, Lorraine, Aaron, Louise.</p> <p>All product produced since the last good metal detection check will be held in quarantine Bay C. Disposal of the product will be in accordance with procedure DP Metal detection PS38 and only carried out by authorised personnel.</p> <p>Actions for product produced when the CPP was out of control will be recorded in: On a corrective action note, reference will be made to this on the monitoring record sheet.</p> <p>All personnel are trained and competent for performing the activities stated.</p> <p>Records of competency are maintained.</p>

# Verification

## Validation study

Validation studies have been carried out on various equipment. Records can be found in the validation file in the office (they include a capability study on the continuous oven, the blast chill, hopper validation trials).

**Lorraine Taylor** is responsible for ensuring the contents of the HACCP plan are validated and will also formally sign off the HACCP plan.

The following verification activities are undertaken:

### Internal audits of

- Critical Control Points
- Prerequisites
- Records of monitoring
- Corrective actions

### External auditing programmes

- Supplier audits

### Finished product

- Microbiological testing

### Interim product

- Microbiological testing

### Other

- Environmental monitoring of production area
- Addressing the findings of customer and third party audits
- Third party certification(SOFHT, BRC)

### Reviewing

- Deviations

- Corrective actions

All verification records are maintained

The HACCP system is formally reviewed **Annually or when something triggers a review such as a change to a supplier, equipment.** .

**Lorraine Taylor leads the HACCP team** is responsible for carrying out a formal annual review.

The following triggers will initiate a review in the organisation:

- Technological advances in production
- New controls that become available
- Change in raw material/ingredients/product formulation/packaging
- Change of raw material supplier
- Change in processing system (e.g. changes in method of preservation – such as addition of preservatives, water activity changes, going from a sterilisation to a pasteurisation activity)
- Changes in layout and environment of the factory
- Modification to process equipment (e.g. new equipment, modification of existing equipment)
- Changes in cleaning and disinfection programme (i.e. a change to any supporting prerequisite programme)
- Failures in the system, e.g. corrective actions or the need for product recall/withdrawal
- Changes in the storage and distribution systems
- Changes in staff levels and/or responsibilities
- Anticipated change in use of product by customer/consumer
- Receipt of information from the market place indicating a health risk associated with the product
- Emergence of foodborne pathogens with public health significance
- Changes in legislation
- New scientific/technical knowledge (e.g. new information on hazards and control measures)
- Unexpected use of product by the consumer
- Environmental changes/issues (i.e. local changes external to the food operation; climate changes)

All records from reviews are documented, brought to the attention of senior management and used to keep the HACCP plan up-to-date.

# Documentation and record keeping

Documentation relating to this HACCP study that the business retains:

- Scope of the study
- Reference to prerequisite programmes
- HACCP team members with details of their role, experience, training and qualifications
- Product description
- Intended use of the product
- Flow diagram, and the confirmation that it is correct
- Relevant hazards (as determined from the hazard analysis) and control measures
- Details of all CCP's that have been determined
- Evidence of how CCP's were determined
- The critical limits at the CCP's, with targets and tolerances where relevant
- The monitoring plan for each CCP
- The corrective action plan for each CCP
- Details and date(s) of validation activities
- Details of verification activities, including the programme for scheduled review and a list of factors that should initiate a review
- Reference to relevant procedures/work instructions and record forms

Other supporting information that is retained

All details concerned with prerequisites are filed in the prerequisite file in the office.

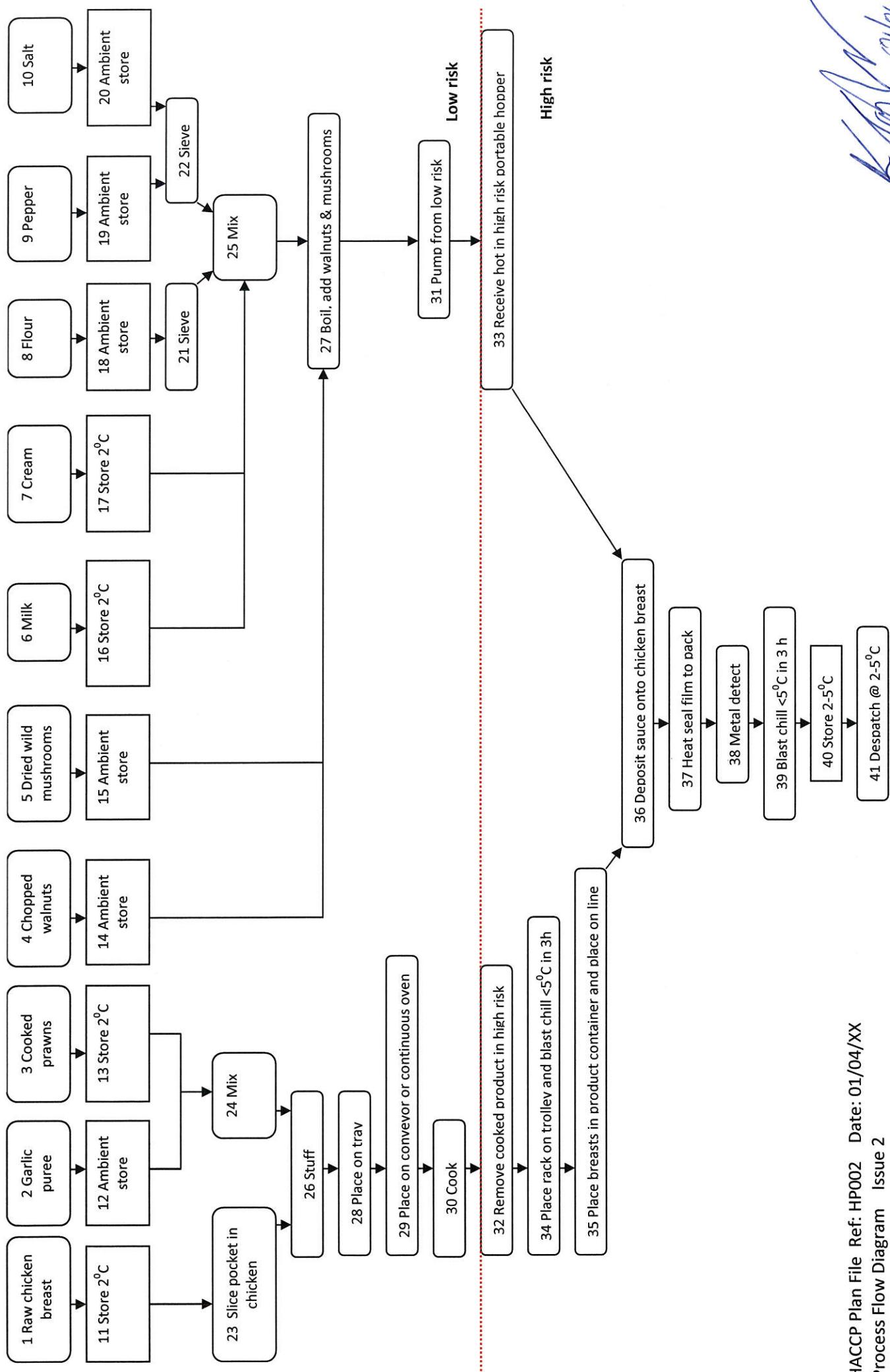
Documentation control

All documents have a unique reference number this is followed by the issue number for that particular document, e.g.0096/02. The date of issue is recorded along with the a signature of authorised personnel with the responsibility to sign the document off. A document control file can be found in the office. All out-of-date documents are kept for traceability.

The maximum length of time we retain this information for is **5 years**

All records are accessible, accurate and up to date.

**Process flow diagram for chicken with prawns and garlic in a wild mushroom sauce**



*K. H. M. Moyle*

