FOOD SAFETY PROGRAM FOR FARMED SHELLFISH

FOR USE WHEN NOT ELIGIBLE FOR HARVEST AND HOLD

NSW GOVERNMENT Food Authority

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SEPTEMBER 2018

Contents

Commitment to food safety

All personnel involved in the production, harvesting and treatment of shellfish by

*(business name)*_____

are committed to:

1. producing shellfish in accordance with the NSW Shellfish Program, and
2. maintaining a food safety program that
    1. complies with requirements of the
        - *Food Act 2003* (NSW)
        - Food Regulation 2015
        - Food Standards Code
        - *NSW Shellfish Industry Manual*, and
    2. enables the end product to be of the highest possible standard.

Each page of this food safety program has been reviewed by the licensee and current activities are accurately reflected.

Signed _____

Date _____

Name _____

Position _____

Food safety program team

The team responsible for maintaining the food safety program, analysing and improving procedures and implementing effective controls to manage food safety risks is:

Team leader: _____Position: _____

Team leader: _____Position: _____

Team leader: _____Position: _____

Team leader: _____Position: _____

All employees listed above are authorised to sign the *Product Record* sheet on behalf of the business when harvesting operations are completed.

Scope

This food safety program covers all activities, procedures and hygiene controls used in the production of shellfish from the growing stage to the harvesting, depuration, packaging, storage, transport and delivery of shellfish to the processing plant.

The program has been prepared in accordance with the requirements in the Food Standards Code and the Food Regulation 2015.

Purpose

The purpose of this food safety program is to ensure that all shellfish harvesters / farmers in this food business are aware of the legal requirements they must meet when operating their business.

Procedures outlined in this food safety program have been developed to ensure that all shellfish sold are safe for consumption by customers.

Product descriptions and intended use

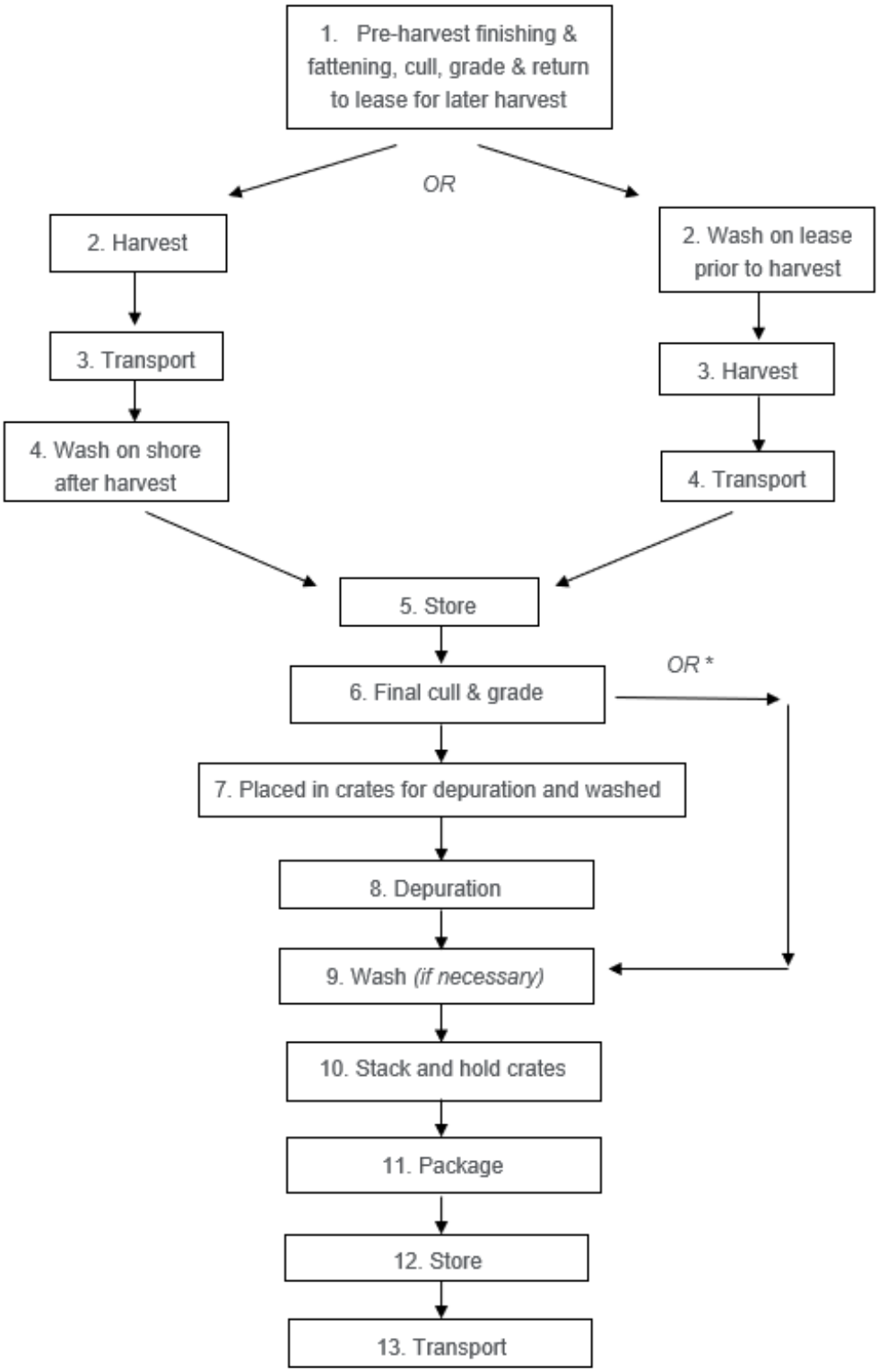
Common products

Product name	Sydney rock oyster (*Saccostrea glomerata*) Pacific oyster (*Crassostrea gigas*) Native oyster (*Ostrea angasi*) Blue mussel (*Mytilus edulis)*
Form	Unopened live product
Packaging	Clean fabric or hessian bags or waxed cardboard boxes
Storage and transport	Sydney rock oysters: • After depuration/harvest, stored at less than 25°C up to 72 hours and then placed at less than 21°C Pacific oysters, native flat oysters, mussels and all other shellfish: • After depuration/harvest, are placed at less than 10°C within 24 hours
Intended use	To be eaten raw or lightly cooked
Consumer	General consumption

Other products (complete or delete as required)

Product name	
Form	
Packaging	
Storage and transport	
Intended use	
Consumer	

Flow diagram: Shellfish production



Hazard analysis worksheets

Product: Farmed shellfish

Process step	Hazard	Control measure	CCP decision
1. Finishing and fattening stage 'Pre-harvest'	Undetected contamination in unmonitored growing area. Stock moved into monitored area excessively contaminated	Shellfish are located in a Shellfish Program monitored harvest zone for a minimum amount of time as per relay requirements	**No** if all growing/harvest leases and stock always in monitored areas **Yes** if stock relayed from unmonitored area
2. Wash	Microbial contamination from suspended silt	Wash on lease when shellfish are out of the water or wash on land	**No**
3. Harvest	Microbial contamination and biotoxin contamination	Check that area is either open for harvest Follow Shellfish Program requirements and procedures for the harvest area	**Yes**
4. Transport Punt from harvest area to depot	i. Stressing shellfish reducing depuration effectiveness ii. Contamination from various external sources iii. Temperature abuse causing microbial build-up	i. and ii. Good storage technique (see *NSW Shellfish Industry Manual*) iii. Proper storage (i.e. SRO <25°C up to 72 hours; <21°C after 72 hours or for Pacific and native oysters and all other shellfish, placed at <10°C within 24 hours of depuration or harvest)	**No** *but* **Yes** if harvested from 'Approved' or 'Conditionally approved' area and sold direct for consumption
5. Store prior to depuration	i. Stressing shellfish reducing depuration effectiveness ii. Contamination from various external sources	i. Good storage technique (*NSW Shellfish Industry Manual)* ii. Pest control	**No** **No**
6. Final cull and grade	i. Contamination from dead or sick shellfish ii. Stressing shellfish reducing depuration effectiveness	i. Remove dead or sick shellfish ii. Avoid rough handling / culling or after cull, return to lease to de-stress. Or cull after depuration	**No** **No**
7. Put shellfish in depuration crates and wash	Recontamination during depuration due to dirty shellfish	Shellfish to be washed in suitable water until they appear clean and wash water is clean	**No**

Process step	Hazard	Control measure	CCP decision
8. Depuration process	Ineffective depuration resulting in the presence of microorganisms in excessive numbers after depuration	Load shellfish no more than 8cm deep in crate Visual inspection of plant operation and monitoring of water salinity and temperature – adjusting as necessary UV lamp replaced in accordance with specifications Depuration conducted for 36 hours	**Yes**
9. Wash (if necessary)	Contamination of shell	Water which at least meets 'Approved area' quality	**No**
10. Stack and hold (in depuration crates)	i. Growth of micro-organisms ii. Contamination from outside sources iii. Mixing with undepurated shellfish	i. Proper storage (i.e. SRO <25°C up to 72 hours; <21°C after 72 hours or for Pacific and native oysters and all other shellfish, placed at <10°C within 24 hours of depuration or harvest) ii. Pest control iii. Depurated / undepurated product separated and identified	**Yes**
11. Package	Contamination from packaging material	Use clean packaging material. Closed containers with drainage holes	**No**
12. Storage of packaged shellfish	i. Growth of micro-organisms ii. Contamination from outside sources	i. Proper storage (i.e. SRO <25°C up to 72 hours; <21°C after 72 hours or for Pacific and Native oysters and all other shellfish, placed at <10°C within 24 hours of depuration or harvest) ii. Pest control iii. Stored off floor, or in dry area, or in impervious container	**Yes**
13. Transport	i. Growth of micro-organisms ii. Contamination from outside sources	i. Proper storage (i.e. SRO <25°C up to 72 hours; <21°C after 72 hours or for Pacific and Native oysters and all other shellfish, placed at <10°C within 24 hours of depuration or harvest) ii. Pest control	**Yes**

Hazard audit tables

Process step	Hazard(s)	Control measure	CCPs	Critical limits	Monitoring procedures	Corrective actions	Records
Pre-harvest	Presence of excessive numbers of pathogenic microorganisms and biotoxins	Sufficient time in monitored harvest zone in accordance with Shellfish Program requirements	Yes	Shellfish to be in harvest area for a minimum time period as per relay requirements	**What:** Time in area **How:** Record placement into harvest zone **When:** At time of stock movement into zone **Who:** *(insert name)*	Shellfish not complying with relay requirements must not be harvested	*Stock Movement Sheet*
Harvest	Presence of excessive numbers of pathogenic microorganisms and biotoxins	Harvest only when area is open for harvest Follow Shellfish Program procedures	Yes	Area open. Advice via the Local Coordinator/ or NSW Program Manager	**What:** Area status **How:** Contact Local Coordinator / or NSW Program Manager **When:** Prior to harvest **Who:** *(insert name)*	No harvest when area is closed If area is closed during harvest or retrospectively closed, harvest will cease and shellfish returned to water	*Product Record Book* – Harvest section
Depuration process	Ineffective depuration resulting in the presence of microorganisms in excessive numbers after depuration	Comply with Shellfish Industry Manual	Yes	Product must be depurated for 36 hours Comply with Shellfish Industry Manual	**What:** Depuration process **How:** Visual inspection, monitor temperature and salinity, correct depuration time **When:** Start and end of process and otherwise as required **Who:** *(insert name)*	Shellfish must be returned to water	*Product Record Book* – Depuration section

Process step	Hazard(s)	Control measure	CCPs	Critical limits	Monitoring procedures	Corrective actions	Records
Post depuration storage and transport	Growth of microorganisms	Storage time and temperature	Yes	Storage after depuration or harvest <25°C up to 72 hours; <21°C after 72 hours for Sydney rock oysters All other shellfish species placed at <10°C within 24 hours	**What:** Time and temperature **How:** Thermometer and clock **When:** i. End of depuration, then ii. Twice daily if stored for more than 12 hours **Who:** *(insert name)*	Cool product immediately	*Product Record Book* entry at the end of the depuration process and then *Temperature Log Sheet*

1. Maintenance program

It is our responsibility to ensure that all premises and equipment used to produce shellfish comply with the requirements outlined in the Food Standards Code, Section 3.2.2.

To ensure that the premises comply, we complete the following activities:

- Conduct regular inspections of the premises and all equipment
- Identify any issues that may require repair to ensure that product safety is not affected
- Schedule repairs. All issues scheduled for repair are documented and provided to NSW Food Authority staff when requested.

Any issues that directly affect food safety are repaired or rectified as soon as possible.

The depuration plant is an area of high importance and is maintained in an acceptable condition at all times. The depuration plant is kept in the best possible condition with all surrounds maintained to ensure there is no chance of contamination.

The depuration plant is operated in a building or area that can be completely enclosed from the outside, and separate from other activities such as shucking and grading.

2. Hygiene and sanitation program

All equipment that is used in connection with shellfish harvesting and depuration activities is cleaned and maintained in an acceptable condition at all times.

All buildings and sheds are maintained in a tidy and clean condition at all times. All waste and other materials no longer required are removed from these areas.

Areas of high importance that are cleaned regularly include:

- Depuration plant – Cleaned before each batch of shellfish are depurated. This cleaning process may only be a water rinse
- UV light system – Cleaned every 6 months. This cleaning includes de-scaling the system with an acid solution and using a detergent to reduce algae growth. If UV lights are stored in fresh water and do not require de-scaling, this can be proved during audit
- Shellfish baskets – Cleaned every time they are used.

3. Process control

3.1 Shellfish harvesting

Harvesting of shellfish is strictly controlled to ensure that a number of food safety requirements are complied with. Requirements include:

- Harvest area must be open – All shellfish that are harvested come from a harvest area that is in the 'OPEN' status. Information concerning the status of each harvest area is obtained from the Area Co-ordinator or the NSW Shellfish Program
- Shellfish must not be co-mingled – A batch of shellfish harvested for sale are harvested from ONE identified harvest area on the same date. Shellfish harvested from different harvest areas or on different dates are recorded as separate batches to ensure that traceability is maintained
- Shellfish is washed prior to depuration or sale – This washing is completed during the harvest process when the shellfish are on the lease. If this is not possible, shellfish are washed at the depot.

3.2 Direct harvest

All shellfish that are harvested for the purpose of direct sale are classified as direct harvest shellfish. Shellfish do not require depuration, but must:

- be harvested from areas that have been classified as 'Approved' and in the 'OPEN' status
- washed before sale to remove excessive traces of dirt, mud and other matter.

All harvested product must be recorded in the *Product Record Book* (Harvest section).

3.3 Shellfish depuration

The depuration process is a critical food safety step in shellfish production. There are a number of requirements followed to ensure that the depuration process is effective and all shellfish sold are safe for human consumption:

- Shellfish are washed so all dirt, mud and other matter is removed before they are placed in the depuration tank,
- Shellfish are placed in baskets to a maximum depth of 8cm
- The depuration tank is only filled with water from a classified area, on the high tide to ensure water quality is acceptable
- All depuration plant operators are accredited by the NSW Food Authority by completing the approved course,
- All product is depurated for 36 hours
- UV light systems are operating in accordance with manufacturers guidelines
- Temperature and salinity are monitored throughout the depuration process
- Shellfish are depurated in accordance with guidelines outlined in *NSW Shellfish Industry Manual.*

All depurated product must be recorded in the *Product Record Book* (Depuration section)

3.4 Water storage

Water that is stored for later use is:

- only pumped when the harvest area status is ‘OPEN’
- only pumped during high tide
- released from storage and replaced when harvest area status is ‘OPEN’.

Water storage tanks are cleaned on a regular basis.

4. Stock relay operational procedures

The movement of shellfish is identified as a critical area that must be carefully controlled to ensure that all shellfish are fit for human consumption when sold.

4.1 Relay timeframes

The following relay timeframes apply:

- Shellfish moved from an unclassified area or from a classified harvest area that is closed due to biotoxin and/or phytoplankton results or sampling compliance[1]. The shellfish must be held in a destination harvest area classified as either approved or restricted for at least **60 days** before being harvested unless testing approved by the Food Authority shows they are free of all contaminants.
- Shellfish moved from a harvest area classified as either approved or restricted but is closed due to a sewage spill. The shellfish must be held in a destination harvest area classified as either approved or restricted for at least **21 days** before being harvested unless testing approved by the Food Authority shows they are free of all contaminants.
- Shellfish moved from a harvest area that is classified as approved or restricted, that meets current biotoxin management plan requirements, and is not impacted by a sewage spill. The shellfish must be held in a destination harvest area classified as either approved or restricted for at least **14 days** before being harvested unless testing approved by the Food Authority shows they are free of all contaminants.
- Shellfish moved between harvest areas of similar classification while in the open status. There is no minimum withholding period applicable if both harvest areas are in the open status.

4.2 Monitoring requirements

All relayed shellfish are recorded in the *Stock Movement Diary*.

These records show how many shellfish were moved, their original locations, and where they were moved to. Shellfish are always identified on the lease in a manner that can be demonstrated during audits. Records will also be maintained indicating when relayed stock is harvested; this information is required to ensure that the minimum hold time limits have been complied with.

A map of all leases used will be provided during the audit process to show what leases the business is using to move / hold stock for harvest.

4.3 Exemption

Any shellfish that are relayed to a harvest area with the same classification, such as moving shellfish from one ‘Approved area’ to another ‘Approved area’, are exempt from the monitoring and permit systems. These shellfish are still recorded to show where stock is located if a further relay is required.

[1] This includes areas that are under a seasonal closure.

5. Product and water testing

The NSW Food Authority has implemented a testing program for shellfish to confirm that all product being sold in NSW is safe for human consumption.

These testing requirements must be completed by all licensed shellfish farmers in order for a licence to be issued. These requirements are:

- The minimum end product testing frequency of *E. coli* for aquaculture product following depuration is:
  - one test per calendar month when oyster depuration is conducted.

NOTE: Post depuration testing is to ensure the depuration process is successful at reducing potentially hazardous material from shellfish. Post depuration testing is a test on the depuration plant, not each individual farmer.

It is strongly recommended that product testing be completed on the first batch of shellfish that are depurated at the beginning of every calendar month. This ensures testing requirements are met.

When resuming harvest after a layoff of three or more months, the first batch depurated must be tested.

5.1 Sample requirements

All shellfish sent for analysis are shellfish that are ready for sale. The purpose of product testing is to ensure that the harvesting and / or depuration process has produced shellfish that are safe for human consumption.

The following procedures are not permitted when taking samples for analysis:

- A sample of shellfish cannot be harvested and depurated solely for the product test
- All samples must be taken from a batch of shellfish ready for sale.

The business ensures that the samples they send meet the laboratory's minimum sample size requirements. To determine how many shellfish must be sent for analysis, a team member contacts the laboratory responsible for analysing the shellfish sample.

5.2 Testing failures

In the event that the first test conducted on a batch of shellfish returns a positive result of more than 7cfu/grams of *E.coli*, the shellfish are always retrieved immediately.

In the event that a product test returns a positive result for *E.coli* above 2.3cfu/gram (but below 7cfu/gram), another four samples may be taken from the same batch of shellfish that returned the elevated result. These additional four samples must be tested immediately:

- If the results for these four samples are less than 2.3cfu/gram of *E.coli*, the product does not need to be retrieved.
- If one, or more, of the four samples returns a result over 2.3cfu/grams of *E.coli*, the shellfish must be retrieved.
- If no further product tests are conducted by the business, all effected product must always be retrieved.

5.3 Notification of failures

When a failed test result is received from the laboratory, the NSW Food Authority is always notified within 24 hours by the business. This notification is given to staff at the NSW Shellfish Program. NSW Shellfish Program staff will then advise the business on what actions can be taken, either through further testing or recalling product.

5.4 Laboratory closures

If harvesting occurs and an end product post-test is required when the laboratory is not receiving samples, (e.g. if a harvest occurs on a weekend) the shellfish are always stored until such time as the laboratory is open and will receive the sample for testing. End product samples are sent to the laboratory for analysis as soon as possible after depuration is completed.

The time and temperature requirements for the storage of shellfish for testing prior to sample submission never exceed the limits outlined in Section 7 of this food safety program.

6. Labelling

All shellfish sold must always comply with labelling requirements set out in the *NSW Shellfish Industry Manual*. These requirements are in place to ensure all product can be effectively identified and traced in the event of a recall being required.

Labelling information must include the following:

- The name and address of the seafood business authorised including country of origin
- A unique identifier of the batch of seafood (e.g. Product Record number)
- The name of the harvest area from which the shellfish were harvested
- The date of harvest
- The species and quantity of shellfish
- A statement indicating the conditions under which the shellfish should be stored.

Information is always clearly marked or attached to the shellfish bags / boxes and is always legible.

All wholesale customers are recorded in the *Product Record Book* to ensure that traceability for all wholesale shellfish is possible. This recording always states the business name and the quantity of shellfish they received.

7. Transport and storage

All shellfish transported or stored for sale comply with the following temperature requirements:

- Sydney rock oysters are always stored at <21°C within 72 hours after direct harvest or following depuration
- Pacific and native flat oysters and all other shellfish are always stored at <10°C within 24 hours of harvest or depuration.

All shellfish are always transported or stored in a sealed, clean container to limit the risk of contamination.

8. Calibration

All equipment used at the premises is calibrated and maintained in working order.

8.1 Thermometer calibration

Hand-held thermometers are calibrated every 12 months by:

- ensuring thermometer is at ambient room temperature
- filling a small container with crushed ice made from potable water (e.g. tap water) and adding a small amount of water. Tip off any excess water
- placing thermometer in the centre of the container ensuring probe is in contact with ice
- allowing thermometer to reach a stable reading (approx. 10 min) and taking a reading.
  - if the thermometer is accurate it should read 0°C
  - if the temperature is more or less than 0°C (e.g. +1°C or -1°C etc.), the difference is noted in the temperature reading and any such difference when reading a temperature for monitoring purposes is allowed for. It is recommended that thermometers with a deviation of more than 1°C should be discarded or returned to the manufacturer.

8.2 Ultra-violet lights

The output of ultra-violet (UV) lights can only be measured using specialised equipment.

Therefore, all premises that have UV systems need to provide written documentation that outlines the specifications for the UV light used.

These specifications will always clearly state the life span of the lights, in depuration batches and years. If the UV light system is not used on a regular basis, the specifications will also outline the effectiveness of the light over long periods without use.

8.3 Depuration tanks

All depuration tanks are always assessed to ensure they comply with the minimum flow rate requirements.

This inspection is completed when the tank is built, as well as when any equipment attached to the tank is replaced.

If the flow rate is not correct, any shellfish placed through the depuration tank will not depurate effectively and may be unsuitable for human consumption.

Depuration tanks are also assessed by the farmer when any changes in the tank are made (changes include when pumps, pipes, UV lights or other equipment are replaced).

The assessment is to ensure that the flow rate of the depuration tank continues to comply with the Food Authority's requirements.

9. Staff training

All staff are trained to enable them to perform their job safely and competently. Training is conducted internally or by an external organisation.

All staff are trained in:

- personal hygiene
- food handling procedures
- cleaning and sanitation for applicable staff
- harvesting operations
- depuration.

Staff training is recorded in the staff training matrix in the records diary.

A minimum of one authorised employee should attend the following mandatory depuration training held by the Food Authority. Records of attendance at the workshop should also be recorded in the staff training matrix.

Personal hygiene practices

All staff are given information on good personal hygiene practice and know-how to wash their hands properly.

Food handling procedures

All staff are given training and shown good food handling practices relevant to their job.

New staff are shown how they should perform their duties to ensure that good food handling procedures are followed.

Cleaning and sanitation procedures

All staff are given training on how to clean and sanitise the equipment they use. This includes:

- correct storage and handling of chemicals
- correct make-up of the chemicals
- procedures for cleaning.

Depuration operator

Depuration is always completed by someone that has completed depuration training conducted by the NSW Food Authority. Evidence of this training is provided for each staff member that operates the depuration tank.

Information on the depuration course can be obtained from the NSW Shellfish Program.

10. Approved suppliers

All equipment used during the process of growing and selling shellfish is purchased from reputable suppliers. We ensure that all equipment and products used by the business are suitable for the operations being conducted and do not cause any contamination or spoilage of the shellfish.

Once reputable suppliers have been sourced, they are used at all times to ensure products purchased are acceptable. Suppliers provide documentation showing their compliance with food safety requirements.

The approved suppliers for this business are outlined below, along with product and contact details.

Approved supplier	Product supplied	Contact details

11. Pest control

Animals and pests including insects and rodents are always excluded from the premises. Any evidence of pests is recorded and action taken immediately to treat the premises.

All premises have a system of baits surrounding buildings and sheds at all times to ensure that there is some protection from pests.

The location of all rodent and insect bait stations located within the premises is identified on a floor plan. The frequency at which these baits are inspected and replaced is also recorded on this floor plan.

In the space below, the outline of this premises is provided with marks where bait stations are located.

No chemicals are permitted to be used in depuration plant rooms or where they can come into contact with product.

All chemicals used for pest control are suitable for use in food premises and are stored away from food-handling areas.

All chemicals used are listed below.

Chemical used	Date placed	Location	Signature	Comments

12. Internal audit

An internal audit of this manual is conducted every 12 months. This is to ensure that procedures and practices used at the business are being controlled adequately according to what is documented in this manual and in the records associated with this manual.

Any corrective actions or non-conformities are brought to the attention of staff in charge of recording or performing these actions.

13. Product retrieval

Product retrievals are carried out by the business that voluntarily retrieves any sold product from a customer.

This process may be carried out for a number of reasons:

- Product test results do not comply with NSW Food Authority requirements (result exceeds the 2.3cfu/gram *E.coli*). Further testing may be conducted on this product to validate that it meets food safety requirements but many farmers choose to retrieve any affected product to avoid a product recall
- Product does not comply with farmers or buyers specifications
- Product may not have been processed correctly.

The business only initiates a retrieval if the product has not yet reached the public markets. Normally product is retrieved through transporters, processors or other businesses that further process or sell directly to the public.

Once the product reaches the public markets, a recall may be ordered by the NSW Food Authority and FSANZ. A public recall involves advertising and notification procedures that list the farmer's details, the product affected and the reason(s) for the recall.

14. Product recall

A product recall is when unsafe product that has been distributed to other businesses and / or the consumer, is immediately withdrawn from sale to protect the consumer.

Product may need to be recalled if it:

- is not from an approved source
- is contaminated with harmful micro-organisms
- is contaminated with harmful chemicals
- is contaminated with physical matter such as glass or wood
- has been tampered with.

A recall may be required based on a customer complaint. In this instance a customer complaint form will be completed and can be found in the *Records Diary*.

In the event of a product recall, the recall program will be controlled by the manager or delegated employee of the business.

In the event of a product recall, the system as defined in the *Food Recall Protocol* prepared by Food Standards Australia New Zealand (FSANZ) will be used.

14.1 Recall procedure

When product is required to be recalled, this business may receive advice from the NSW Food Authority regarding:

- a decision whether a recall is necessary and if further tests should be performed:
  - management collates and evaluates all information immediately available and the nature and extent of the problem
  - the recall classification is then made based on these findings (Class 1 or Class 2)
  - the quantity of affected stock is established as well as the location of that stock:
    - if the product is on site or in company delivery vehicles, it is isolated immediately
    - if the product has been dispatched to customers, management will liaise for recall from customers. Delivery records can be used for this and can be recorded on the *Receipt and Despatch Monitoring Form* from the *Records Diary.*

14.2 Classes of recall

Class 1
Where there is a reasonable probability that the use of or exposure to the product will cause adverse health consequence. For example, presence of *E. coli*, toxic chemical contaminants or harmful foreign bodies.

Class 2
Where use or exposure of the product is not likely to cause adverse health consequences. For example, incorrect labelling, physically undesirable product or product deterioration.

If a Class 1 recall is necessary, NSW Food Authority officers are notified by the business immediately. If it is appropriate to the circumstances, information is also sent to the media.

Details notified include:

- classification of the hazard
- description of the product – product type, batch number, best before date
- quantity of affected product
- distribution and sales dates
- method for consumer identification
- contact name and telephone number.

The necessity for storage, isolation and disposal of the product is determined by management.

A written record of events and actions is always kept.

NSW Shellfish Program

The *NSW Shellfish Industry Manual* has been prepared by the NSW Food Authority in accordance with the requirements of the Food Regulation 2015.

The manual provides operational parameters for the NSW shellfish industry as required by the regulation and is a reference document for all parties involved in the implementation and management of the NSW Shellfish Program. It applies to all bivalve molluscs commercially grown in and harvested from NSW waters.

The manual does not include the specific details of individual harvest area classifications and management plans, but provides the requirements for such management plans for areas where shellfish are harvested or collected for human consumption.

The *NSW Shellfish Industry Manual* links with the Australian Shellfish Quality Assurance Program (ASQAP), and definitions, procedures and methodologies are consistent with those used in that manual.

Revision of the manual is the responsibility of the NSW Food Authority in consultation with the NSW Shellfish Committee. Accordingly, details may change from time to time, subject to approval of amendments by the Chief Executive Officer of the NSW Food Authority.

The *NSW Shellfish Industry Manual* is available on the internet at: http://www.foodauthority.nsw.gov.au/industry/

Harvest area management plans

Each harvest area is the subject of a management plan formulated in accordance with the NSW Shellfish Program. Management plans specify the conditions under which harvest may be conducted in the relevant harvest area and all other criteria to be applied in managing shellfish safety for shellfish contained in the area.

Monitoring forms

- Thermometer calibration
- Ultra-violet light calibration
- Staff training record
- Internal audit checklist
- Temperature measurement
- Manual amendments and incident sheet

Calibration record –Thermometer calibration

Date	Reference temperature	Thermometer temperature	Signature

If the thermometer temperature is more than 1°C outside the temperature of the reference, a new thermometer is purchased.

Calibration record – Ultra-violet light calibration

UV light installation date	Life span of UV light (in batches or years)	Signature

Staff training record

Date	Staff member	Type of training	Trained by	Staff signature

Internal audit checklist (every 12 months)

Tasks		Corrective action required/taken
Are there any changes to the coversheet, food safety team or phone contacts sheet?	Y/N	
Have any changes been made to any farm procedures or controls in the food safety program? If Yes, list the control or procedure number(s) changed.	Y/N	
Is the *Product Record Book* and *Stock Movement Diary* up-to-date and all information entered?	Y/N	
Are completed records returned to Shellfish Program?	Y/N	
Are all buildings and equipment clean?	Y/N	
Has the depuration tank been cleaned?	Y/N	
Pest control chemicals recorded?	Y/N	
Has staff training been recorded?	Y/N	
Have product tests been completed?	Y/N	
Has there been any product recalled? Has calibration been completed?	Y/N	
Comments:		
Internal audit carried out by: Signed ……..……. Date …….		

Temperature measurement

Date and time	PR number	Temperature (°C)	Comment	Checked by

Manual amendment and incident sheet

Manual amendments are required when changes are made to this program. These changes must be recorded in this section.

NOTE: Changes can only be made with written approval from the NSW Food Authority.

Manual section	Page number	Date of issue	Reason for amendment

	Incident sheet	
Date	**Nature of event**	**Corrective action**

Contact details

Contact name	Phone number	Fax number
NSW Food Authority helpline	1300 552 406	02 9741 4888
NSW Shellfish Program	02 6552 3000	02 9741 4896
Ultra-violet light manufacturer		
Pest control		
Transport company		
Laboratory		
Local Area Coordinator		

6 Avenue of the Americas, Newington NSW 2127
PO Box 6682, Silverwater NSW 1811
T 1300 552 406
E food.contact@dpi.nsw.gov.au

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