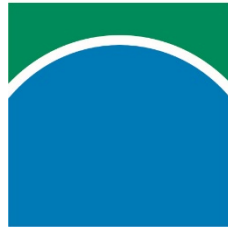


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# Fumigation Procedures for the Port of Tauranga



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## Statement of Intent

We recognise that fumigation takes place to meet the regulatory requirement imposed by MPI and our trading partners' phytosanitary requirements and with specific controls to meet and manage the Health, Safety and Environmental regulations. The Port values human health above all else: all procedures must comply with all relevant legislation and take into account the wider port environment and our neighbours.

Undertaking fumigation operations in accordance with these Fumigation Procedures (FP) which outline key requirements to ensure all fumigations are carried out in a safe manner, will promote clear communication between affected parties, to manage the fumigation of the log stacks, ships, containers and other general cargo, thus avoiding general exposure, as well as reducing the exposure risks to any person entering the different areas where fumigations are taking place.

The Fumigation Procedures (FP) will also minimise risk to the fumigator by ensuring fumigations have adequate space to be done safely.

# 1 General

1.1 The requirements of the Fumigation Procedures (FP) are in addition to the statutory requirements for fumigation under the HSNO Act, the ERMA Decision HRC08002 and regulations required to be met by the Approved Fumigator.

1.2 This FP applies to all fumigation inside Port of Tauranga as follows:

1.2.1 Logs under sealed and secured covers

1.2.2 Logs in ships' holds

1.2.2 Timber in general yards

1.2.3 Cargo in sheds

1.2.4 Containers

The FP is principally focused on methyl bromide fumigation and all references to monitoring of buffer zone boundaries apply only to methyl bromide.

The basic principles of ensuring the safety of all who work or enter the port area apply to all fumigants.

1.3 This FP must be read in conjunction with the;

- Hazardous Substances And New Organisms Act 1996 ("the HSNO Act") and Regulations and the Approved Code of Practice under the Hazardous Substances And New Organisms Act 1996;
- The Control and Safe use of Fumigations prepared by the Pest Management Association of NZ which meets the requirements of the HSNO Act and Health and Safety at Work Act 2015;
- The Resource Management Act 1991;
- Environmental Risk Management Authority Decision HRC08002, 28 October 2010;
- And any other related industry codes of practice relating to the safe handling of products.

1.4 Bay of Plenty Regional Council Resource Consent to be held by fumigator and copy made available to Port of Tauranga.

1.5 The fumigation contractor must have Standard Operating Procedures for all fumigation operations carried out at Port of Tauranga and these will be made available to Port of Tauranga's Manager Operations, on request.

1.6 The fumigation contractor will submit an emergency plan to Port of Tauranga's Manager Operations and be responsible for annually updating and re-submitting this document during May each year.

1.7 Fumigants must only be handled and used by an Approved Handler who holds the relevant Controlled Substance Licence or by an Approved Trained Person working under the supervision of a Fumigator.

- 1.8 All fumigations must be documented and the records made available to Port of Tauranga Limited, WorkSafe NZ or other regulatory authorities upon request.
- 1.9 Any product to be fumigated must be placed to meet the minimum buffer zones for non-occupational bystanders as detailed in the ERMA Decision HRC08002, or any other authority that imposes an increased minimum buffer zone – refer *Appendix One (1)*, Fumigation Areas within Port.
- 1.10 Despite minimum areas described in this document, wherever practical, fumigation should be carried out well away from all areas (which may be occupied by personnel), buildings, parking areas, toilets etc.

## **2 Fumigation in Operational Areas**

- 2.1 Risk Area – the risk area will be defined by cones and signs. The size will be determined by the operator to ensure all risks are managed. For multiple log rows, timber stacks or containers the risk area will be around the outer rows, stacks or containers. Only trained members of the fumigation contractor’s staff may enter the risk area.
- 2.2 Monitored Safety Zone – this zone applies only during ventilation of the cargo. The zone will be determined by the fumigator and the size dictated by quantity of fumigant, wind direction and speed. No port workers are allowed into this zone at any time. This zone is under the control of the fumigator.
- 2.3 Port Buffer Zone - The area between the risk zone (risk area or monitored safety zone) and port security fence is the buffer zone as defined by ERMA HRC08002 and is an area safe for port users to enter and work. Refer to Health & Safety Port Induction <http://www.port-tauranga.co.nz/health-safety/port-inductions/> .

## **3 Notification**

- 3.1 The fumigator must notify Port of Tauranga Limited by email, 24 hours prior to fumigation occurring at: [cscplanners@port-tauranga.co.nz](mailto:cscplanners@port-tauranga.co.nz) and [cargoservices@port-tauranga.co.nz](mailto:cargoservices@port-tauranga.co.nz) and others as required by the HSNO Act and the Environment Risk Management Authority Decision HRC08002.
- 3.2 Notification may be less if the fumigation is urgent for a reason or reasons relating to public health or biosecurity.

## **4 Signage**

- 4.1 Prior to applying methyl bromide, the fumigator must ensure that the required signs are displayed at the entrance to the fumigation zones (Appendix 1).
- 4.2 The fumigator must ensure that the boundary of the monitored safety zone is clearly marked.
- 4.3 Warning notices must be placed on the product being fumigated (or entrance/s to the shed) that state that the product is under fumigation, the fumigant used, fumigant hazard classification, person in charge of the fumigation and contact telephone number, date fumigant applied and emergency services telephone number.

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- 4.4 The fumigator must remove the signage at the relevant fumigation site when the ventilation process is completed.

## **5 Monitoring**

- 5.1 All monitoring must be undertaken with equipment recommended for the fumigant being used. All the equipment must be calibrated, as a minimum, to the manufacturer's recommendations. The fumigator must ensure that all those who use monitoring equipment are fully trained in its correct use. A detailed equipment calibration log must be kept and made available to Port of Tauranga Limited on request.

- 5.2 The fumigator must ensure that the risk area is monitored while fumigant is being applied to ensure that there is no leakage of fumigant. The fumigator will conduct further routine check during the entire fumigation.

The fumigator will monitor the level of gas during all venting within the port area and at the edge of the port boundary. Monitors must be turned on at the right location at least 6 minutes before venting

- 5.3 The fumigator will, and Port of Tauranga Limited staff or appointed contractor may, regularly monitor fumigant levels outside the monitored safety zone to ensure that the levels are not above the Workplace Exposure Standard (WES) and present no risk to port users who may enter or work in the zone. This monitoring must be logged and results available to the Port of Tauranga Limited.

Signage at the monitored safety zone boundary should remain in place until levels of methyl bromide measured at the edge of the monitored safety zone remain under 5 ppm for at least 15 minutes.

- 5.4 The fumigator is responsible for monitoring the boundary of the buffer zone to ensure the Tolerable Exposure Limit (TEL) is not exceeded and report the results to the Port of Tauranga Limited on request. The fumigator is required to monitor until the readings are less than 0.05ppm for the required time:

- Fifteen (15) minutes for fumigations involving more than 7kg of methyl bromide
- Three (3) minutes for fumigations involving less than 7kg of methyl bromide.

## **6 Storage of Fumigants**

- 6.1 If fumigants are stored on site, they must be stored in an area that is covered by a current Hazardous Substance Location Test Certificate.

## **7 Ventilation and Clearance**

- 7.1 As far as practicable, venting of gas will be done at times when there are fewer people in the work area, and will comply with any conditions imposed by any regulatory body.

When venting on the berth pre loading area, the following steps must be taken:

- a) Fumigator must coordinate with other PCBU's working on adjacent berths to ensure safe operating procedures are followed;

- b) Fumigator staff must communicate to the stevedore / marshaller on the adjacent berth(s) and advise of venting operations.
- 7.2 Once ventilation has been completed, and the fumigant levels in the area are below the WES, a Clearance Notification is issued to Port of Tauranga Limited and the warning notices on the fumigation removed.
- 7.3 Multiple fumigators may not ventilate simultaneously if rows are located directly up / down wind of one another.

## **8 Additional Job Specific Procedures**

### **8.1 Logs under covers**

- 8.1.1 Rows to be fumigated must be at such a height as to enable fumigators to safely cover rows while also ensuring there is a gap of at least one (1) metre around each row to be fumigated or two (2) metres if recapture equipment is to be used. This is necessary for:
  - a) The safety of the fumigators;
  - b) That the covers can be secured to prevent uncontrolled discharge of fumigant;
  - c) The amount of fumigant is such that a controlled release can be achieved;
  - d) To allow proper access to log rows for the purpose of meeting MB recapture requirements.
- 8.1.2 It is the intention of the Port of Tauranga Limited to promote greater efficiencies in log storage by increasing row heights, and in doing so, encourage fumigators to develop safe methods to cover rows as storage demands change.
- 8.1.3 When a row is being covered, two adjacent rows cannot be accessed by log handling machinery, to ensure the safety of the covering team.
- 8.1.4 While logs stacks are under fumigation, one adjacent row cannot be accessed by any machinery or vehicles to ensure the integrity of the fumigation.
- 8.1.5 In the absence of an adjacent row, the fumigator will use cones to define a safe distance from the fumigation to manage all risks.
- 8.1.6 Covering shall not take place if the wind speed is in excess of 25 knots.
- 8.1.7 During all stages of the fumigation process, until ventilation is complete, the risk area and monitored safety zone are managed and monitored as in Sections 2 and 5.
- 8.1.8 Once the row has been fully vented, it is marked as being “available” with candy stripes stapled down the side of the logs and the front of the row is either spray marked with the word “FUMOD” or a candy stripe cross affixed.
- 8.1.9 Ships storage area – product can be fumigated in the ship storage provided the requirements of the fumigators SOP, Venting on berth, are adhered to.

Prior to logs being covered, the fumigator must ensure point 7.1 is achievable and any fumigation or venting does not impact on any vessel working on adjacent berths.

This is provided that the area is defined by cones and is of a size determined by the operator to ensure all risks are managed. This must be communicated with the any adjacent working stevedores to minimise disruption to working vessels.

## 8.2 Logs in Ships Holds

8.2.1 Where another ship is berthed immediately forward or immediately after of the ship being fumigated, the Fumigator shall advise that ship's agent, stevedore and marshaller that fumigation is being undertaken on an adjacent vessel. The fumigator shall first determine that the area is safe and meets the minimum exposure standards allowed.

8.2.2 The Fumigator shall ensure that the ship's agent and captain of the vessel under fumigation are aware of the vessel fumigation procedure, as supplied by the fumigator.

8.2.3 The fumigation night watchman and sufficient numbers of ship's crew, necessary to maintain the ship in a safe condition, are to remain on board during the fumigation process, providing it has been determined it is safe to do so.

8.2.4 Where the buffer zone extends over water, the fumigator and the Harbourmaster must take all practicable steps to ensure that if a non-occupational bystander enters the buffer zone, that the bystander moves out of the buffer zone as soon as practicable.

8.2.5 Before venting operations commence, the Fumigator shall keep all unauthorised people clear of the surrounding area and notify stevedores and marshallers working adjacent vessels.

8.2.6 At the completion of the fumigation, the ship's agent and captain are to be advised by supplying "Notice of Completion of Fumigation" and a gas free certificate.

## 8.3 Timber in General Yards

8.3.1 The same specific requirements apply as per 8.1 (logs under covers).

## 8.4 In Sheds

8.4.1 Fumigator must coordinate with other PCBU's working on adjacent areas to ensure safe operating procedures are followed.

## 8.5 Containers

8.5.1 The container must be fumigated in a designated, secure area.

8.5.2 For containers under sheets, the same specific requirements apply as per 8.1 (logs under covers).

8.5.3 The buffer zone for containers under covers is 50m. Buffer zone for standalone containers is 25m.



- 8.5.4 For containers being fumigated under sheets, the Risk Zone size will be determined by the operator to ensure all risks are managed.
- 8.5.5 For containers being fumigated in situ (direct into container, no sheets), no risk zone applies. When venting these containers, the monitored safety zone applies (refer 2.2.).

#### 8.6 Fumigation during Cruise Season

- 8.6.1 While there is / are cruise vessels in port, the buffer zone is a minimum of 200m from vessel(s).
- 8.6.2 For every cruise visit, the Port of Tauranga Cruise Check Sheet must be completed to ensure complete compliance to the 200m buffer zone.
- 8.6.3 All fumigation of containers and timber in Zone 7 is **by application at all times.**

The fumigator must communicate with POTL Cargo Services Supervisor for approval to fumigate. To ensure compliance, it may be necessary to delay fumigation until the minimum buffer zone can be met. As required, it also may be necessary to restrict fumigation of logs in Zone 6 to comply.

#### 8.7 Thermal fogging ships holds

- 8.7.1 Prior to treatment of timber in ships holds by Thermal Fogging, POTL Customer Service Centre must be contacted by phone (07 572 8886).

During the Thermal Fogging process, a visible vapour is produced that looks like smoke, but is harmless.

#### 8.8 Venting

During venting, if a berth access road must close due to venting activities, the fumigator must have the following procedure in place:

- a) A competent traffic management person must be deployed to stop traffic, and verify the requirement to transit through the closed area to the berth car park.
- b) This person needs to be easily identified, by signage, as the designated traffic warden with the requirement that his/her direction is complied with.
- c) This person will safely escort the vehicle to the car park, or advise the time delay, then escort the vehicle to the car park when safe to do so.

At all times, POTL operations crews must be able to access the working berth to ensure vessel arrivals are not impeded. Fumigation staff must ensure they are aware of any impending vessel movements into a berth prior to venting so not to close off any access way to the berth or the berth face.

## **9 Reporting**

- 9.1 The fumigator shall report at the end of each calendar month to the Port of Tauranga Limited, the following:
- a) Total number of fumigations.
  - b) Total amount of methyl bromide applied during the period.
  - c) How many times the exposure levels exceeded the TELair value.
  - d) Any uncontrolled releases during the period.
- 9.2 Annual reporting as per the ERMA requirements.
- 9.3 The fumigator must demonstrate compliance with all relevant regulations, including BoPRC Resource Consent and the EPA Decision HRC 08002.

## Appendix 1

Maps of Port showing fumigation areas plus eight (8) zones

- Zone 1: Ship storage area
- Zone 2: The area south of Berth #11 access road
- Zone 3: North of Berth #11 access road to 20m south of Shed 5
- Zone 4: East of Tasman Quay – **No fumigation**
- Zone 5: #5 Shed – **No fumigation**
- Zone 6: #6 Berth
- Zone 7: #5 / #4 Berth for containers, sawn timber and vehicles (no logs) including #3 and #9 Shed – **Fumigation on application only**
- Zone 8: Sulphur Point containers, S Block and #20 Shed, MPI Mobile Inspection facility and Empty Container Inspection



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## Amendment and Review Log

This document will be reviewed annually and amended when there are any changes to operating procedures or changes to legislation. The following is a record of reviews and amendments.

<b>DOCUMENT REVIEW DATE</b>	<b>REVIEWER (NAME &amp; SIGNATURE)</b>	<b>MANAGER OPERATIONS (SIGNATURE)</b>
March 2015	Mark Whitworth	Phil Julian
March 2018	Mark Whitworth	Phil Julian
June 2018	Mark Whitworth	Phil Julian

<b>AMENDMENTS (DATE &amp; AUTHOR)</b>		<b>UPDATED (NAME &amp; SIGNATURE)</b>
01	Updated maps for fumigation zones	Mark Whitworth
02	Full document review. Updated maps, included direct link to H&S induction document.	Mark Whitworth
03	Revised section 5&7, Appendix 1, Zone 4 – No Fumigation	Mark Whitworth
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