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GUIDELINE

# Inspection of forest products for export

**Direction to staff**

You must comply with this instructional material under the Practice Statement Framework.

**Direction to authorised officers**

Authorised officers must exercise powers and perform functions in accordance with any lawful directions or instructions issued by the department.

**Direction to industry**

This guideline outlines the requirements for the inspection of forest products for export. All parties with roles and responsibilities explicit in this guideline and legislation must comply with it.

**Summary of main points**

This document outlines the policy and process for the inspection of forest products to enable export certification. It includes:

* pre-inspection requirements
* inspection requirements
* sampling requirements
* pest identification and tolerances
* pass and failure principles
* treatment requirements
* post-inspection requirements.

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## Purpose of this document

The guideline details the policy and process for the inspection of prescribed forest products for export. It includes the following commodities:

* woodchips
* logs
* processed forest products.

This document is to be read in conjunction with the Work Instruction: [*Inspecting forest products for export*](#_Related_material) which provides guidelines on sampling and inspection procedures for prescribed forest products.

## Authorised Officer Job Functions

The inspection of forest products is covered by the following Authorised Officer (AO) job function accreditations:

* FOP3001:1 Inspection of Woodchips (Packaged)
* FOP3001:2 Inspection of Woodchips (Bulk into Container)
* FOP3001:3 Inspection of Woodchips (Bulk into Vessel)
* FOP3002:1 Inspection of Logs (Bulk into Container)
* FOP3002:2 Inspection of Logs (Bulk into Vessel)
* FOP3003:1 Inspection of Processed Forest Products (Packaged)
* FOP3003:2 Inspection of Processed Forest Products (Bulk into Container)\*
* FOP3003:3 Inspection of Processed Forest Products (Bulk into Vessel)\*

\*Bulk processed forest products include consignments presented in packs, bundles and pieces.

## Legislative framework

Consideration must be given to the following legislation before goods are exported. Authorised Officers and industry representatives involved in the export process must ensure that the legislation is adhered to throughout the exporting process:

* *Export Control Act 2020 (Act)* andExport Control (Plant and Plant Products) Rules 2021 (Plant Rules)
* Export Control (Fees) Rules 2021
* *Privacy Act 1988*
* *Public Service Act 1999*
* *Work Health and Safety (Transitional and Consequential Provisions) Act 2011*

The legislations listed above are all accessible via the Federal Register of Legislation at: <http://www.legislation.gov.au>.

## Work health and safety

* Clients and operators of registered establishments should comply with the WHS policies of their organisation during the packing, treatment and movement of goods.
* AOs must
* read and be familiar with the Reference: [*Work health and safety in the plant export environment*](#_Related_material)
* not enter work sites unless it is safe, they are wearing the required personal protective equipment (PPE) and have considered any work health and safety (WHS) hazards
* discontinue their inspection if, at any time, they consider there is a risk to their safety
* comply with applicable Commonwealth, state and territory WHS legislation
* comply with site-specific requirements, unless they assess the requirements as placing them at risk, in which case they must take reasonable action to ensure their safety
* continually assess the possible risks while performing their duties.

## Conduct Pre-Inspection Tasks

This section outlines the overarching principles relating to the phytosanitary sampling, inspection and export certification of forest products. Requirements for preparation, sampling and inspection may vary according to the commodity for export and importing country requirements.

In summary, all prescribed forest products must meet the following requirements:

* Be prepared in a registered establishment – establishment hygiene requirements must be met.
* Have a valid notice of intention to export (NOI/RFP).
* Be sampled, inspected and pass the inspection.

### Export licence for unprocessed wood

Forest products may require an export licence for the export of unprocessed wood. Export licences are issued by the Department of Agriculture, Fisheries and Forestry - Forestry Branch and may be required for the export of 2 tonnes or more of unprocessed wood products sourced from certain areas. It is the exporters responsibility to determine whether an export licence is required and to obtain a licence prior to export. Export licences are not required to be presented to AOs prior to export, however AOs must at the time of booking remind exporters of the possible requirement to obtain an export licence.

Further information on export licences for unprocessed wood can be found on the [department’s website](https://www.agriculture.gov.au/forestry/industries/export) or by contacting the [Forestry Branch](#_Contact_information).

### Recording Inspection Results

Inspection details are recorded in PEMS or on the manual inspection record. AOs must use one inspection record for each inspection conducted. It is mandatory for AOs to use the approved forms. AOs may need to attach additional pages to the inspection record.

Where logs are containerised, all containers that comprise the consignment/inspection lot must be recorded in PEMS or on the manual inspection record with a result recorded against each container.

### Inspection Equipment Checklist

* Waste bin and lid supplied by establishment for disposing of unwanted material found during inspection.
* Torch capable of being focused to a spot.
* Sieves (large and pocket) for separating insects and contaminants from the samples.
* Measure 2.25L for samples.
* Mallet and chisel for removal of bark.
* Knife and scraper suitable for cutting and removing residue from places difficult to access.
* A pair of tweezers suitable for collecting larger species.
* Hand lens x10 magnification or more for pest, weed seeds and contamination identification.
* Small painters brush for separating objects of quarantine concern and collecting small insects from the samples being inspected.
* Vials/tubes filled with methylated spirits or 80% ethyl alcohol (ethanol) for collecting arthropod specimens.
* Sealable plastic bags for larger specimens collected during inspection
* Labels for specimens.
* Access to PEMS or manual inspection records.
* Pencils for labelling tubes (pens aren't suitable as alcohol dissolves most ink) and pen for completing various forms.
* Trier for inspection of bagged product.
* Personal protective equipment (PPE) such as safety vest, helmet, steel cap boots, hand gloves, apron, face mask, goggles, communication equipment and hearing protection.
* Calculator or mobile phone with a scientific calculator.

### Empty Container or Bulk Vessel Approval

Inspection of empty containers and bulk vessels ensures requirements have been complied with in the transportation of prescribed goods and no infestation or cross contamination issues exist with loading prescribed goods into inspected empty containers or bulk vessels. An AO must ensure that a valid container approval or bulk vessel approval has been issued.

#### Packaging material inspections

Materials to be used as packaging for forest products such as bagged products or processed products, and other materials applied to forest products at the time of packaging must be:

* new or if previously used and intended for repeated use, must have been cleaned and reconditioned to the satisfaction of an AO, that is, unlikely to infest or contaminate goods and be free of holes, rips and tears
* used in a manner that is unlikely to place the acceptability of the prescribed goods at risk
* sufficiently strong to withstand the handling incurred by the materials during transit
* otherwise appropriate for the goods
* free from any contaminants that could cross-contaminate the goods
* if a trade description is attached, it should be accurate and unambiguous.

## Conduct Flowpath Inspection Tasks

### Inspection Area

The AO must ensure the area to be used for the phytosanitary inspection is clean, well lit, free from sources of cross-infestation, cross-infection, cross-contamination, and clear of fumigant gases.

The inspection equipment must be clean, adequate and fit for purpose.

The AO must ensure there is adequate access to all goods to allow sampling in a safe manner from the entire lot/consignment.

### Commodity Flowpath

The commodity flowpath is deemed to be from the point of sampling to the point of loading and must be inspected prior to loading to ensure it is fit-for-purpose and free of sources of cross contamination. In circumstances where the flow path fails inspection, the AO must be advised when the issue has been rectified and the flowpath is ready for re-inspection.

### Assess the consignment

The content of the entire lot or consignment to be inspected should match the details on the NOI/RFP. It may be necessary to count packages if exact quantity is not known.

The AO should only request a break-down into the pallet if in doubt or access to particular samples is needed.

Do not proceed with the inspection if the lot/consignment presented does not match the NOI/RFP.

### Trade Description

The trade description must be accurate and unambiguous and meet the requirements of the Export Control Act and the Plant Rules.

Trade description requirements are met through the provisions of accurate and unambiguous (true and correct) information relating to the consignment when lodging the RFP into EXDOC.

A trade description applied to goods is taken to be accurate and unambiguous if it:

* contains sufficient information to enable the goods to be readily identified and not confused with any other product
* is clear, set out in prominent and legible characters and not obscured in any way
* has been securely attached to the packaging
* satisfies any requirements of the importing country.

Where an AO is concerned that a false trade description has been applied to prescribed goods, the AO needs to contact the Regional Plant Export Manager. In the interim, AOs must withhold export documentation and require exporters to produce documentary evidence to support the description given. These may include declarations by the exporters/processors of the goods or certificates of analysis from accredited laboratories for various parameters required by the importing countries.

## Conduct Commodity Inspection tasks

### Sampling and Inspection Procedures

Sampling and inspection procedures for prescribed forest product must be carried out in accordance with Work Instruction: [*Inspecting forest products for export*](#_Related_material). [*Appendix 1*](#_Appendix_1a:_Process) and [*Appendix 2*](#_Appendix_2:_Sampling) also outline updated sampling and inspection requirements.

**Note:** If containerised log RFPs are split into multiple RFPs following inspection, all RFPs/consignments will require re-inspection by an AO to ensure sufficient containers have been subject to inspection.

## Inspection Tolerances

Where visual signs of infestation and or contamination are found during inspection, the AO will undertake a more detailed inspection to determine that no live pests are present. Visual signs of termite and borer pest infestation may include emergence holes, frass and exterior runways in the forest product.

Table 1 lists forest product pests present in Australia which other than those specified by the importing country require rejection if detected during inspection for export certification. Tolerance levels imposed by the importing country takes precedence over tolerances listed in Table 1. Additionally, on re-inspection following fumigation (containerised goods), if live pests are found (injurious or non-injurious) or the phytosanitary status has changed, then goods must be rejected and treated appropriately.

The [Pest and Disease Image Library (PaDIL](#_Related_material)) may be used for further information on various pests including pest identification. Where uncertainty exists regarding identification, the AO must inform the exporter of their responsibility to seek professional identification. AOs are not expected to be able to identify all pests, diseases or contaminants.

**Table 1: List of pests with a nil tolerance in prescribed forest products.**

| **Common names** | **Scientific names** | | **Comments** | |
| --- | --- | --- | --- | --- |
| **BORERS** | | | | |
| **Powderpost beetles:** | | | | |
| Lyctine borer  Dorsal view*Dorsal view* *PaDIL* | | *Lyctus discedens*,  *Minthea rugicollis* | | These are dry timber borers are primarily limited to the sapwood of certain hardwoods, such as some eucalypts, oak and meranti. |
| Powderpost beetle*Dorsal viewLateral viewDorsal view*Dorsal view  Dorsal view Dorsal view  *PaDIL* | | *Lyctodon bostrychoides,*  *Lyctus brunneus,*  *Lyctus parallelocollis,*  *Minthea acanthacollis,*  *Tristaria grouvellei,*  *Trogoxylon ypsilon* | | Lyctids attack the sapwood and hardwoods generally less than 10 years old. Lumber, manufactured and structural timbers are attacked (Walker 2006; Walker 2007). |
| Powderpost beetle*Dorsal Image* *PaDIL* | | *Xylobosca canina* | | It is a native Australian species (McCaffrey 2012) and breeds in dead or dying and old trees (Bashford 1991). |
| **Anobiid Borers:** | | | | |
| Common furniture beetle  Dorsal view  *PaDIL* | | *Anobium punctatum* | | These borers attack furniture, structural timbers, flooring and decorative wood work and prefer to feed on well seasoned timber, especially softwoods such as Baltic pine or New Zealand white pine. However, they attack some hardwoods, especially blackwood and imported English oak (CSIRO 2012). |
| Queensland pine beetle  Adult Queensland pine beetle  *DAFF QLD* | | *Calymmaderus incisus* | | These borers commonly attack softwood timbers such as Hoop pine and to a lesser extent Bunya pine and New Zealand white pine (CSIRO 2012). |
| **Longicorn Beetles:** | | | | |
| Fig longicorns beetle  Dorsal view - female *PaDIL* | | *Acalolepta vastator* | | Native Australian pest and its larvae live inside tree trunks in particular rubber tree *Ficus elastic* (Walker 2006). |
| Longicorn beetle  http://www.ento.csiro.au/education/Assets/images_coleoptera/Hesthesis_cingulata.jpg  *CSIRO Entomology* | | *Hesthesis cingulata* | | *Hesthesis cingulata*s damages trees by severing stems or branches completely. *Hesthesis cingulata* also severs the stems of Eucalyptus saplings just before ground level (Elliott *et al*. 1998). |
| Longicorn beetle  http://www.ento.csiro.au/education/Assets/images_coleoptera/Piesarthrius_marginellus.jpg  *CSIRO Entomology* | | *Piesarthrus marginellus* | | The larvae of *Piesarthrus marginellus* bore into the wood of trees and shrubs, feeding on the soft tissue of living, dead or dying plants (CSIRO 2012). |
| Longicorn beetle  Dorsal view female Dorsal view *PaDIL* | | *Phorocantha* spp. | | *Phorocantha* speciesfeed and breed on timber (Walker 2006). Its attack is mainly observed on stressed living trees (Ivory 1977; Farrow 1996; Paine and Millar 2002). |
| **Bark Beetles:** | | | | |
| Cyprus bark beetle  Lateral Image | | *Phloeosinus cupressi* | |  |
| European bark beetle  Lateral view *PaDIL* | | *Hylurgus ligniperda* | | It utilises thick-barked logs of large diameter that are in contact with the ground or stumps and dead trees with thick bark at ground level (Boomsma and Adams 1943). |
| Five spined bark beetle  Lateral view  *PaDIL* | | *Ips grandicollis* | | Both adults and larvae feed on bark mainly of declining or dead trees and occasionally of freshly harvested logs. The infestation may sometimes result in the loss of wood over extensive areas. The most common mode of introduction to new areas is through the movement of unseasoned infested sawn wood and wood packaging material containing bark (EPPO 1998). |
| Pine bark beetle  http://www.ozanimals.com/image/albums/australia/Insect/Hylastes-ater-2.jpg  *PaDIL* | | *Hylastes ater* | | The beetle breeds in the inner bark and cambium of pine roots and tree stumps, bases of dying trees, or in logs on the ground. The immature beetles feed on bark and inner bark from pine seedlings at ground level, and can kill the seeding (Walker 2006). |
| Small European elm bark beetle  http://t1.gstatic.com/images?q=tbn:ANd9GcRDvTW3_b64MtUAGVqToYpHqBdseRo_3QuJwgXD5dRov3_TkrY3LQ  *PaDIL* | | *Scolytus multistriatus* | | It is a vector of *Ohiosostoma ulmi* and *Ophiostoma novo-ulmi*. |
| **False powderpost beetle/ Auger Beetle:** | | | | |
| European house longhorne beetle  Live Image  *PaDIL* | | *Hylotrupes bajulus* | | It is one of the most serious pests of dry seasoned coniferous timbers such as pines, firs and spruces (Walker 2005). |
| False powderpost beetle, Lesser auger beetle  Lateral view  *PaDIL* | | *Heterobostrychus aequalis* | | *Heterobostrychus aequalis* is a serious pest of timber. They tunnel along the wood grain, depositing eggs. The larval feeding reduces the wood starch to soft powder (Walker 2005). |
| Powderpost beetle  Particoloured auger beetle  Dorsal viewHead front  *PaDIL* | | *Mesoxylion collaris* | | It attacks recently felled logs and green timber (only the sapwood of hardwood). The larvae feed along the grain of the wood and generally the damage is superficial. The larvae produce a fine powdery frass (Walker 2006). |
| Powderpost beetle; Auger beetle  Dorsal view *PaDIL* | | *Sinoxylon anale* | | It is an agricultural, forestry and forest pest of economic importance. It is a primary borer in the sapwood of logs, and timbers used in house building, boxes, and packing (Walker 2005). |
| Powderpost beetle  Dorsal viewLateral view of larva  Dorsal ImageLateral Image - Female *PaDIL* | | *Xylobosca binosa,Xylion cylindricus,*  *Xylothrips religious, Xylotillus lindi, Xylodeleis obsipa, Xylopsocus gibbicollis, Xylopsocus rubidus* | | The beetles mainly feed and breed on bamboo, timber, rattan, stored grain and products made from timber (Chu and Zhang 1997). The infestation results in numerous entry and exit holes ranging from 3 to 9 mm on the surface of wood. They attack mainly freshly felled logs and unseasoned sawn timber (Peters *et al*. 1996; Elliott *et al*. 1998). The infested wood contains tunnels filled with frass. |

| **Common names** | **Scientific names** | | | **Comments** |
| --- | --- | --- | --- | --- |
| **Other borer pests:** | | | | |
| Ambrosia beetle  [Dorsal Image](http://www.padil.gov.au/pests-and-diseases/Pest/Main/141313/33983)  *PaDIL* | | *Amasa truncata* | It attacks live wounded trees or trees in poor condition and may not be on the pathway for commercial grade timber intended for export (Kliejunas *et al*. 2006). The only living trees it is known to attack are eucalypts particularly *E. globules* (Walker 2011). | |
| Ambrosia beetleLateral view *PaDIL* | | *Ambrosiodmus compressus* | It has been recorded attacking dead trees, fallen logs and freshly sawn timber records (Bain 1976). | |
| Bark Borer  Image of Bark Borer (Ernobius mollis) | Rentokil Pest Control Australia  *PaDIL* | | *Ernobius mollis* | Its damage is confined to unbarked softwoods with no structural damage. The larvae may burrow long distances in the bark and wood and in the process may damage other materials such as leather and plastic in contact with the wood (Peters *et al*. 1996). | |
| Australian Jewel Beetle (wood borer)http://upload.wikimedia.org/wikipedia/commons/thumb/4/4e/Agrilus_horniellus_-_ZooKeys-256-035-g002-16.jpeg/220px-Agrilus_horniellus_-_ZooKeys-256-035-g002-16.jpeg | | *Agrilus australasiae* | Its distribution is restricted to eastern and southern Australia (NSW and SA). The main larval hosts are the Acacia spp. (Turner and Hawkeswood 1996). | |
| Jewel beetle  **Enlarged photo of a Miena Beetle.**  *DPIW Tasmania* | | *Castiarina (Stigmodera) insculpta, Julodimorpha bakewelli, Stigmodera roei,* | While most adults are nectar feeders especially on Eucalyptus blossoms or leaf feeders, the larvae are wood borers, feeding on the sapwood under the bark of native trees and shrubs. | |
| Island pinhole borer  Picture | | *Xyleborus perforans* | Members of Xyleborus feed and breed on a variety of trees, shrubs. They may be found on small branches, seedlings and large logs (CABI 2012). | |
| Queensland pine beetle  Adult common furniture beetle  *DAFF QLD* | | *Calymmaderus incisus* | *Calymmaderus incises* attacks softwood timber such as Hoop pine. The larvae burrow long tunnels in susceptible hoop pine and rarely attack other timber (Peters *et al*. 1996). | |
| Stem borer  Pacific Ocean | | *Crossotarsus externedentatus* |  | |

| **Common names** |  | **Scientific names** | | | **Comments** |
| --- | --- | --- | --- | --- | --- |
| Wood boring weevil  Dorsal view *PaDIL* | | | *Pentamimus australis* | It is an Australian native species and breeds in dead or dying *Acacia dealbata* trees (Bashford 1991). | |
| **TERMITES** | | | | | |
| ***Bifiditermes*:** | | | | | |
| Dampwood termite  Dorsal Image - alateDorsal Image - Soldier  *PaDIL* | | | *Bifiditermes improbus,*  *B. condonensis* | It is often present in scars and branches wounds and ultimately finds its way into sound wood. It has been found in Eucalyptus stumps and poles (Hadlington 1987). They are native Australian species and can cause damage in power poles (Walker 2006). | |
| ***Ceratokalotermes*:** | | | | | |
| Dampwood Ceratokalotermes termite  Dorsal Image - Alate *PaDIL* | | | *Ceratokalotermes spoliator* | It is a native Australian species (Walker 2006). This is pest of dead tissues of living trees. It degrades the timber by entering into the heartwood of living trees (Hadlington 1996). | |
| ***Coptotermes:*** | | | | | |
| Coptotermes termite  Dorsal view soldierDorsal Image - SoldierDorsal Image - Soldierhttp://www.ozanimals.com/image/albums/australia/Insect/Coptotermes-formosanus.jpgDorsal view soldierDorsal view - soldierDorsal Image - Soldier *PaDIL* | | | *Coptotermes acinaciformis,*  *C. brunneus, C. dreghorni,*  *C. formosanus,*  *C. frenchi,*  *C. lacteus,*  *C. michaelseni* | This is one of the world’s most destructive termites with no signs of its infestation until the collapse of timber (Hadlington 1987). They attack living trees, lumber and buildings (Walker 2006) and inflict considerable damage on logs for timber (Hadlington 1996). In severe infestations, it hollows out woods leaving a paper-thin surface (Su and Scheffrahn 2010). | |
| ***Cryptotermes*:** | | | | | |
| Drywood termites  Dorsal view - soldierDorsal view - soldier  *PaDIL* | | | *Cryptotermes brevis,*  *C. primus Minor*  *Cryptotermes austrinus,*  *C. cynocephalus,*  *C. domesticus,*  *C. gearyi, C. hilli,*  *C. queenslandis,*  *C. secundus,*  *C. simulates,*  *C. tropicalis* | *Cryptotermes* are known to attack structural timber as well as decay-affected buttress rots of trees, dead logs on ground and in decaying stumps (Hadlington 1987; Walker 2006). The infestation of some species goes un-noticed until the infested timber collapses. They attack woods including living trees, building materials, etc. (Walker 2006). (PaDIL 2012). | |
| ***Glyptotermes*:** | | | | | |
| Dampwood termite  Dorsal Image - SoldierDorsal view - soldierhttp://t2.gstatic.com/images?q=tbn:ANd9GcRESlYBwPBvOaQV02QL0f-0JSVNkN3z0ZSXHEE_LAXGMdTBEte_ew  *PaDIL* | | | *Glyptotermes*  *barrette,*  *G. brevicornis,*  *G. tuberculatus* | Gleptotermes species including *G. tuberculatus* form colonies in dead, decaying wood adjacent to sound wood of living trees, particularly Eucalyptus. This genus contains some species that have been found attacking sound wood from affected sapwood and are considered as serious pests of transmission poles in some areas (Crefield 1996). | |
| ***Heterotermes*:** | | | | | |
| Subterranean Hetertermes termite  Dorsal Image - WorkerDorsal Image - Alate  Dorsal Image - SoldierDorsal Image - AlateDorsal Image - AlateDorsal Image - AlateDorsal Image - AlateDorsal Image - SoldierDorsal Image - AlateDorsal Image - Alate  *PaDIL* | | | *Heterotermes* spp. | Most *Heterotermes* attacks occur in fences, decking, posts and poles where weathering and decay are common. However, some superficial damage to floor timber has been observed in extreme cases (Hadlington 1987). | |
| ***Incisitermes*:** | | | | | |
| Drywood termites  Dorsal Image - Alate Dorsal Image - Soldier  *PaDIL* | | | *Incisitermes barrett,*  *I. repandus,* | They are native Australian species and nest in dead scars, stumps and sawn timber (McCaffrey 2010; Walker 2011). | |
| ***Kalotermes*:** | | | | | |
| Kalotermes termite  Dorsal Image - SoldierDorsal Image - SoldierDorsal Image - Alate *PaDIL* | | | *Kalotermes aemulus,*  *K. atratus,*  *K. aemulus* | They are native Australian species (McCaffrey and Walker 2012; Walker 2010). Species of *Kalotermes* are normally found in trees having scars and dead branches. This genus inflicts minor timber damage and is of little economic significance (Hadlington 1996). | |
| ***Mastotermes*:** | | | | | |
| Giant northern termite  Alate dorsal view *PaDIL* | | | *Mastotermes darwiniensis* | It is an Australian native species and is very destructive and economically significant pest in northern Australia. It attacks wood including living trees, building materials and some agricultural crops such as sugarcane (Walker 2006). | |
| ***Nasutitermes*:** | | | | | |
| Subterranean termite  Nasutitermes termite  Dorsal Image - Soldierhttp://v2.boldsystems.org/pics/_w300/TTDIW/50cz%2B1243445304.JPGDorsal view - soldier  *PaDIL* | | | *Nasutitermes cormiger,*  *N. dixoni, N. Exitiosus,*  *N. fumigates,*  *N. graveolus,*  *N. walkeri* | This genus causes damage to sound wood in service. Some of its species attack only weathered and decayed wood (Hadlington 1987). | |
| ***Neotermes*:** | | | | | |
| Ringant termite  Dorsal view - soldier *PaDIL* | | | *Neotermes insularis* | It is Australian native species (Walker 2006) and is a serious pest of forest as it degrades commercial logs (Hadlington 1987). | |
| ***Parrhinotermes*** | | | | | |
| Termite  Dorsal Image - Soldier  *PaDIL* | | | *Parrhinotermes queenslandicus* | It is an Australian native species of low economic importance (McCaffrey and Walker 2012). | |
| ***Porotermes:*** | | | | | |
| Termopsid termite  Dorsal Image - imago *PaDIL* | | | *Porotermes adamsoni* | It is a native Australian species (Walker 2010) and attacks dead and living trees mainly *Eucalyptus* species (Pearson *et al*. 2010). | |
| ***Procryptotermes*:** | | | | | |
| Drywood Procryptotermes termite  Dorsal Image - SoldierDorsal Image - alate  *PaDIL* | | | *Procryptotermes australiensis,*  *P inopinatus* | They are native Australian species of low economic importance (McCaffrey and Walker 2012; Walker 2010). | |

| **Common names** |  | | **Scientific names** | | **Comments** |
| --- | --- | --- | --- | --- | --- |
| ***Schedorhinotermes*:** | | | | | |
| Subterranean termite  Dorsal Image - SoldierDorsal views of major and minor soldiersDorsal views of major and minor soldiersDorsal views of major and minor soldiers  Head Front Tangent Image - alate Dorsal views of major and minor soldiersDorsal Image - Soldier*PaDIL* | | *Schedorhinotermes actuosus,*  *S. breinli,*  *S. derosus* | | They are native Australian species and are considered as an economic pest. They attack timber in service, some of them nest in fences and feed primarily on logs (Walker 2006; Walker 2010). | |
| **Miscellaneous forest product pests:** | | | | | |
| Larger auger beetle  Dorsal view female  *PaDIL* | | *Bostrychopsis jesuita* | | It is a native Australian species and attacks a range of plants and trees such as *Eucalyptus* and grape vine wood and canes (Walker 2006). | |
| Giant wood moth  Larva of the giant wood moth in a hardwood stem *DAFF QLD* | | *Endoxyla cinereus* | | Its attack weakens the trees and causes significant reduction in the quality of harvested logs (House 2011). | |
| Sirex Wood wasp  The male sirex wood wasp. The front half of the body is blue-black and it has an orange abdomen with a dark tip  *House (2011)* | | *Sirex noctilio* | | The trees normally die as a result of toxic mucus and fungus introduced by wasps (House 2011). | |

Table 2 lists the general tolerances for contaminants detected during inspection of prescribed forest products. Only contaminants listed in Table 2 require tolerances to be applied if detected during inspection for export certification.

Tolerance levels imposed by the importing country takes precedence over any tolerances listed in this manual.

**Table 2: General tolerances for contaminants detected in prescribed forest products**

|  |  |
| --- | --- |
| **Contaminant** | **Tolerance level** |
| Soil | Nil\* |
| Rodents | Nil |

\* Upon detection of small visible quantities of soil, the goods do not require rejection if the exporter removes the contaminants from the goods during inspection. Soil tolerance does not apply to consignments of soil based potting mix.

## Contaminants

The following principles should be used for contaminants found in forest product samples during inspection:

1. For contaminants for which a nil tolerance applies, cleaning or treatment of the relevant goods must be carried out to remove the contaminating material if the goods are to be resubmitted for export.
2. For contaminants for which a numerical tolerance applies, treatment, cleaning or blending to below the permitted tolerance may be carried out.
3. If contamination has occurred on the outside of packages, such contamination may be removed by brushing or other mechanical means.

## Log Stockpiles

* Establishments must ensure log stock piles, are placed on 2 ‘bearers’ to raise them away from soil and reduce the risk of soil transfer and contamination during loading.
* Bearer logs placed on soil surfaces are not to be included as part of the lot presented for inspection.
* Any bearer logs in contact with the ground must either not be exported, or must be cleaned prior to presentation for inspection.

## Rejection Principles

If any pests or contaminants are found in excess of tolerances (including nil) the prescribed forest products must be rejected. If any live pests/insects are found post fumigation (injurious or otherwise), it indicates that the treatment has failed or phytosanitary status has changed and the consignment has been subject to re-infestation post treatment – and must be subject to re-treatment (and re-inspection). Upon rejection the AO must clearly identify the rejected prescribed forest products, record the details of the rejection in PEMS or on the manual inspection record. and notify the responsible person that the goods have been rejected.

The exporter must ensure that the rejected goods are identified and isolated from goods which remain eligible for export. The AO will ensure that the inspection of other goods in the area which remain eligible for export will not commence until the rejected goods have been identified and a satisfactory hygiene inspection has been completed of all cross-infestation areas.

The AO will record the method used by the exporter to rectify the cause of rejection in PEMS or on the manual inspection record for all re-inspected goods.

#### Rejection of the source

Detection of live pests and pests of quarantine concern to the importing country requires rejection of the source. The source is deemed to be considered the inspection ‘lot’ (logs, processed forest products and packaged forest products) or the stockpile point at which the goods are being loaded onto the conveyor system for bulk woodchips.

If the woodchip stockpile is less than 200 tonnes the entire stockpile must be rejected from the stockpile point. In the case of stockpiles larger than 200 tonnes, 200 tonnes of the goods from the stockpile point are to be rejected. Upon rejection the AO will inform the exporter of their responsibility to isolate and clearly distinguish the rejected source from the remaining goods in the stockpile eligible for export.

## Inspection of Resubmitted Goods after Treatment

#### Treatment of rejected goods

If goods are rejected, the goods must not be presented for re-inspection unless the reason for the rejection has been rectified. Rejected goods can be resubmitted for inspection following treatment. The choice of treatment is the responsibility of the exporter and the AO must not recommend a specific treatment. The treatment applied must be safe and effective and must meet importing country requirements. If there is no suitable method of treating the goods, the goods must not be re-presented for inspection. Only logs rejected for live insect infestation may be loaded in containers or vessel holds to undergo fumigation treatment. Samples must be drawn from the containers or vessel holds and re-inspected.

Resubmitted goods must be inspected in accordance with the Work Instruction: [*Inspecting forest products for export*](#_Related_material)  and rejected if any live pests and contaminants above the tolerance levels are detected.

#### Treatment using pesticides and fumigants

If a pesticide and/or fumigant is used, the client must ensure the use meets Australian legislation and standards, meets label requirements and the importing country’s requirements.

Rejected consignments, treated with a pesticide, must not be resubmitted for inspection until after any safety period has passed and precautions specified on the registered label are met.

If a fumigant is applied, the client must also provide a gas free certificate, issued by an accredited/licensed fumigator, to ensure it is safe before the reinspection of the goods.

#### Fumigation requirements and responsibilities of the fumigators

* + Fumigators (including those providing in bulk vessel hold fumigation) must be listed on the [Grain and Seeds Export Program](#_Contact_information) (GSEP) approved fumigator list, for further detail refer to [Appendix 4](#_Appendix_4:_Fumigation).
* All log fumigation must be performed as per the [Department of Agriculture, Fisheries and Forestry’s methyl bromide fumigation methodology](#_Related_material) or the [Sulfuryl fluoride fumigation methodology](#_Related_material).
* All fumigation enclosures must meet the ‘gas tight’ requirements as per the [Department of Agriculture, Fisheries and Forestry’s methyl bromide fumigation methodology](#_Related_material) or [Sulfuryl fluoride fumigation methodology](#_Related_material).
* Fumigation enclosures must be sufficiently gas-tight (leak tested) to retain the fumigant for the duration of the exposure period and maintain the concentrations at or above the requirements (to ensure an effective treatment).
* Containers used as a fumigation enclosure must be on level ground so that doors can be closed and seal in gas effectively.
* Containers used as a fumigation enclosure must be leak tested to ensure they are effectively ‘gas-tight’ and retain the fumigant at or above the requirements for an effective fumigation.
* All log stack/container fumigations must be undertaken on an impervious/sealed or sheeted surface.
* Logs with bark for export to China are subject to mandatory fumigation (and subject to level 2 re-inspection).
* Logs without bark for export (to all countries) that fail inspection must be fumigated (same as for logs with bark) and then subject to level 1 re-inspection.
* In addition to the requirements of the methyl bromide/sulfuryl fluoride fumigation methodology, fumigators must also
* measure the temperature of logs to be fumigated.
* The temperature of the logs must be at or above the minimum allowable for fumigation to commence.
* Log temperature must be measured at five locations across the consignment.
* To measure temperature
  + the logs must be drilled to 50 mm deep
  + after waiting 10 minutes, a thermometer must be inserted into the drilled holes
  + the thermometer reading must stabilize before reading temperature.
* Actual log temperatures must be recorded, not averages.
* The fumigation dosage must be based on the lowest temperature reading measured.
* Fumigation is not permitted if the temperature of the enclosure is expected to fall below (or commodity is below) the specified minimum temperature allowable (for the fumigant) during the exposure period.
* Fumigations must be monitored. Each container/hold/fumigation enclosure (including logs stacks) must have a minimum of 3 monitoring lines (that is one each at the bottom, middle and top away from the gas injection point).
* Concentration readings must be taken 4 times in total including at the start of fumigation (once equilibrium is reached), then at 2 hours, 16 hours and at 24 hours (the end point of fumigation).

**Note:** Alternatively, continuous monitoring technology approved by the department can be used to record the concentration readings.

* Concentration readings must be recorded on the fumigation certificate. For further detail on recording readings refer below and to [Micor](#_Related_material).
* In addition to the requirements in Micor and in the Guideline: [Supporting documents for plant exports](#_Related_material_2), the fumigation certificate must also detail the below information:
  + location of the fumigation activity
  + container number(s), cubic volume (m2) of the enclosure/s
  + pressure test results
  + volume of gas used (including any top ups)
  + fumigant cylinder serial numbers
  + concentration level for all monitoring lines
  + time and date of the monitoring
  + measured log temperatures, and forecast minimum ambient temperature
  + the fumigator/monitors name, signature and contact details
  + serial number (or equivalent) of the gas cylinder/s and amount injected into the container/fumigation enclosure on the certificate.
* The department may, at any time, request that fumigators provide advance notice of planned fumigations for audit or other purposes.
* All relevant instructional material/[Micor](#_Related_material) conditions regarding treatments must be met.

### Export validity period

Prescribed goods that pass inspection remain valid for 28 days. In exceptional circumstances, the validity period can be extended beyond the 28 days.

To extend a validity period, an exporter must apply to the department’s [Grain and Seed Exports Program](#_Contact_information) in writing no later than one business day before the validity period ends. The exporter must supply:

* + details of the exceptional circumstances for which an extension is required
  + a justifiable period of extension
  + information that gives assurance that the condition of the goods has not changed since inspection and that there has been no compromise of the phytosanitary status of the goods, including the security.

Once a decision is made, the Grain and Seed Exports Program will inform the exporter of the decision in writing and the [Assessment Services Exports](#_Contact_information) group will be informed to make a record of the additional approved period.

#### Reinspection of consignments where export is delayed

Reinspection of prescribed goods is necessary if:

1. the time between inspection and export exceeds the (validity) period during which the prescribed goods are passed for export
2. the maximum time between inspection and export permitted by the importing country is exceeded.

When an importing country’s requirement is not 28 days, the importing country’s requirement takes precedence over the 28 day period. Exporters must request reinspection if any of the above conditions have occurred.

#### Audit requirements

Audits of operations will be conducted in accordance with the Guideline: [*Audit of plant export registered establishments*](#_Related_material).

With the introduction of the updated sampling and inspection requirements (December 2020) - an increased (heightened) rate of demonstration audits is required for all log exporters. This includes more unannounced audits and audits including review of fumigation practices is required.

On re-opening trade to China - a mandatory demonstration audit will be required for companies specifically listed as non-compliant. These companies will need to show compliance with new processes prior to providing any certification for China. Updated sampling and inspection requirements are detailed in [*Appendix 1*](#_Appendix_1:_Sampling) and [*2*](#_Appendix_1b:_Process).

## Requirements for re-export

Re-export phytosanitary certificates must be issued for imported prescribed goods re-exported from Australia if phytosanitary certification is required by the importing country authority, and the:

* goods are accompanied by a phytosanitary certificate issued by the country of origin or a certified true copy of the phytosanitary certificate issued by the country of origin

**Important:** AOs must validate the original or certified copy of the phytosanitary certificate from the importing country(ies) at the time of inspection.

* identity of the goods can be established
* consignment has not been exposed to infestation or contamination while in Australia
* goods have been inspected by an AO in accordance with the Work Instruction: [*Inspecting forest products for export*](#_Related_material)*.*
* goods comply with the requirements of the importing country authority
* goods in the consignment have not been grown or processed to change their nature in Australia.

## Record keeping

Where documents are not available in PEMS; clients, exporters, registered establishment operators and AOs must retain documentation in relation to receivals, inspections, audits, registration, accreditation and export certification for a period of at least 2 years.

## Related material

The following related material is available on the department’s website:

* *Export Control Act 2020 (Act)*
* Export Control (Plant and Plant Products) Rules 2021 (Plant Rules)
* Pest and Disease Image Library: [www.padil.gov.au](http://www.padil.gov.au)
* Manual of Importing Country Requirements ([Micor](http://micor.agriculture.gov.au/Plants/Pages/Documents.aspx))
* Methyl bromide fumigation methodology

* [Sulfuryl fluoride fumigation methodology](https://www.agriculture.gov.au/sites/default/files/sitecollectiondocuments/biosecurity/import/general-info/qtfp/sf-fumigation-methodology.pdf)
* [Plant Export Operations Manual](http://www.agriculture.gov.au/export/controlled-goods/plants-plant-products/plantexportsmanual)
* Guideline: *Audit of export registered establishments*
* Work instruction: *Inspecting forest products for export*
* Reference: *Inspection technique guide – logs bulk in containers*
* Reference: *Inspection technique guide – logs bulk in vessels*
* Reference: *Inspection technique guide – logs bulk in stockpiles*
* Reference: *Work health and safety in the plant export environment*

Related WHS instructional material is available on the [IML](http://iml.agdaff.gov.au/Pages/Topic/Health%20and%20safety.aspx) for departmental AOs.

## Contact information

* Authorised Officer national helpline: 1800 851 305
* Authorised Officer Program: [PlantExportTraining@aff.gov.au](mailto:PlantExportTraining@aff.gov.au)
* Assessment and Client Contact Group: [PlantExportsNDH@aff.gov.au](mailto:PlantExportsNDH@aff.gov.au)
* Grain and Seed Exports Program: [Grain.Export@aff.gov.au](mailto:Grain.Export@aff.gov.au)
* Grain and Seed Exports Program hotline: 02 6272 3229
* Forestry Branch: [wood.export@aff.gov.au](mailto:wood.export@aff.gov.au)
* Micor Administrator: [Micorplants@aff.gov.au](mailto:Micorplants@aff.gov.au).

## Document information

The following table contains administrative metadata.

| Instructional Material Library document ID | Instructional material owner |
| --- | --- |
| IMLS-9-7589 | Director, Grain and Seed Exports |

## Version history

The following table details the published date and amendment details for this document.

| Version | Date | Amendment details |
| --- | --- | --- |
| 1 | 28/03/2021 | First publication of this guideline to reflect the commencement of the *Export Control Act 2020* and associated Plant Rules. |
| 2 | 14/08/2023 | Included information regarding log stockpiles as well as establishment and fumigator responsibilities and requirements. |

## Attachment 1: Safe operating procedure—inspection of forest products for export (logs)

|  |  |
| --- | --- |
| Hazard/Risk | Moving logs, logs falling from stack, track and wheeled machinery, malfunctioning equipment, excessive noise, slip or trip, unsafe log stacks, unfavourable environmental conditions, lack of physical and/or psychological fitness. |
| Personal Protective Equipment (PPE) | Safety glasses, hard hat, steel cap boots, hearing protection, sun and eye protection, safety vest, communication equipment, gloves (if required). |

### General Site Safety

#### Preparation for inspection

The AO must:

* Notify their regional Plant Export Manager if they have any concerns about their ability to complete the task safely.
* Undertake pre-operational checks on equipment including personal safety equipment and tools. Mallets and chisels that are blunt or have loose heads are not to be used.
* Ensure that specimen kit is carried.
* Confirm that an experienced establishment representative is available to accompany the AO on the inspection.

#### Safe Operating Procedures

##### Instructions

* Receive site induction from the establishment safety officer or other authorised establishment delegate.
* An establishment representative must accompany the AO at all times during the inspection.
* Ensure there is communication with persons operating vehicles working in the yard. Communication equipment is normally provided by an establishment delegate. If communication cannot be maintained, then vehicles must stop work during the inspection process, alternatively working vehicles must remain in excess of 50 m from the inspection site lot/row of logs, or across a minimum 3 rows/stacks distant.

**Note:** The establishment representative must remain with the inspecting officer so communication can be maintained throughout the inspection.

* Designate an appropriate safe area to carry out the log inspection. Inspection should not be carried out in any area where there is a risk of injury should the log stack collapse or from vehicles working in the area. Stack should be prepared with a ‘well’ near the end of the stack as shown in attached sketch (Figure. 1).
* Logs are to be prepared for inspection by the client. Logs must be on the ground with sufficient space between them for the AO to work. Any turning or moving of logs must be carried out by the client’s representative.
* A gap of approximately 2 metres should be maintained between the end of the log stack and inspection logs.

**Note:** Logs presented on a smooth surface may need to be chocked to prevent movement during inspection. Take care in wet conditions as logs can become slippery when wet.

* The AO must position themself and the log to ensure that no injury can result during removal of bark.
* Under no circumstances is the AO to
* sit on logs in the stack
* turn the logs for inspection purposes
* smoke within the establishment confines
* knock or attempt to move logs in the stack
* remove or not use defined PPE
* be under the influence of alcohol or a drug while working in the yard
* walk on logs, stacks or woodchip piles.
* Complete the necessary paperwork in the site office or other safe area away from the inspection area.

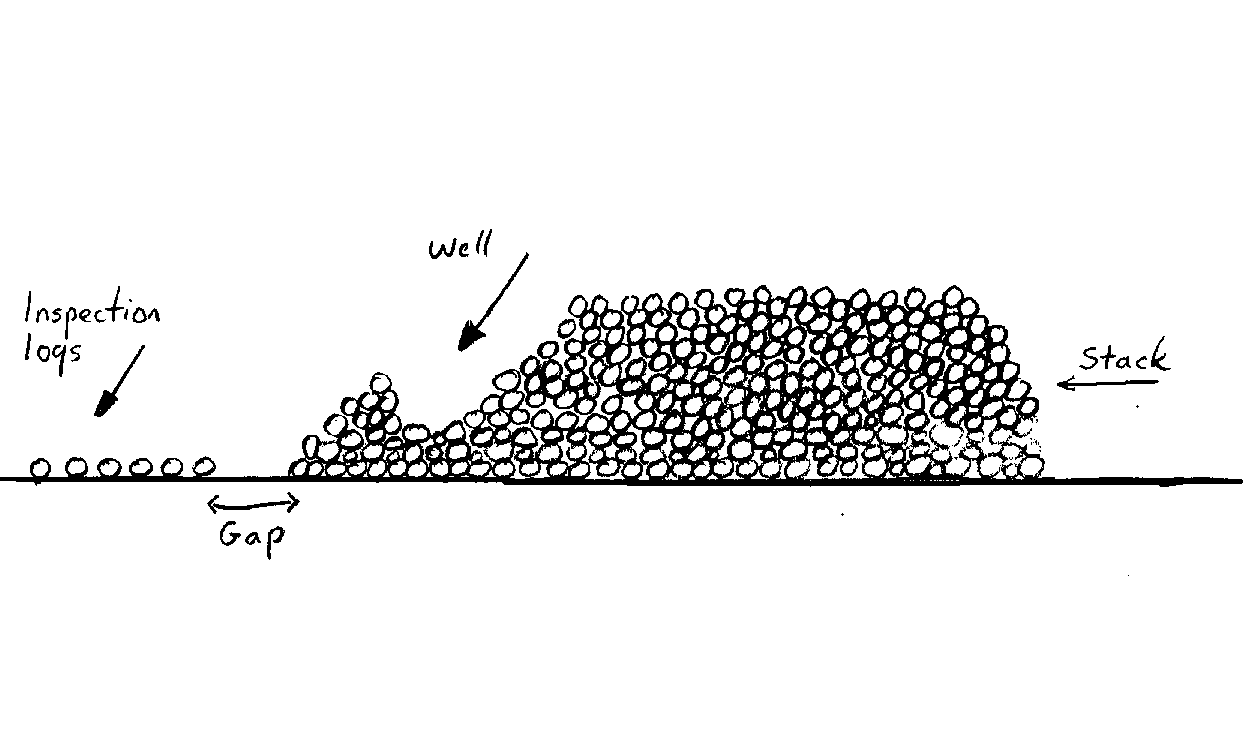


Figure 1. Typical log stack with ‘tailed off’ end and layout of logs for inspection.

#### Emergencies

* Always take directions from the client’s representative.
* Contact rescue provider by radio or other appropriate means.
* Advise emergency response provider of the nature of emergency, location, condition of the worker, and rescue conditions.
* Provide emergency first aid assistance (if possible).

#### Things to Remember

The AO must:

* not undertake inspection without a client’s representative present.
* ensure there is sufficient light to undertake inspection.
* always adhere to good WHS practices.
* withdraw from the inspection site and contact their supervisor if they believe there is an immediate risk to their health and safety.

The following table illustrates and describes safe operating procedure and relevant instructions to follow when inspecting forest products (logs) for export.

| What does this look like | Description |
| --- | --- |
| Safe use of mallet and Chisel  DCP00590  DCP00599 | **Using a Mallet and Chisel**   * Always chisel away from the body. * Never run your hand along blade of chisel. * Wear safety glasses at all times when using a mallet and chisel. * Use sharpened chisel at all times. * Do not wear gloves when using a mallet and chisel, chisel can slip from gloves. * Lift bark using chisel facing away from your body. * When using the Mallet and chisel do not wear gloves. * Take a firm grip of the chisel. |
| Photo showing example of log rows and how they are set out  Photo showing example of logs laid ouit in a dangerous manner  Photo showing example of logs laid out in a dangerous manner  Photo showing example of logs laid ouit in a dangerous manner  Unstable logs; stay well clear; do not walk within 2 metres of an area such as this | **Log rows and how they are set out**   * Note the rows on the right have a tapered end at approximately 30 degrees. This set up makes it difficult for the logs to roll. * Row on the left has the wall stile end—this will only be on one end of the rows. * Always walk a minimum of 2 metres from the end of a row when coming to the end of the row. * Do not walk under logs that are laying in a dangerous manner. * Notify the establishment site manager. * Row ends with logs sitting as above can roll, so do not climb or walk in front of them. * Do not walk around the end of a row with logs protruding as those on the left. * Do not walk under logs sticking out from rows. * You should advise the client about the log/s sticking out as when they are loading this could be a problem. |
| Photo showing example of a representative sample of logs for inspection taken from the end of each row (approximately 20 logs), laid out at the end of each stack or designated inspection area. | A representative sample of logs for inspection taken from the end of each row (approximately 20 logs), laid out at the end of each stack or designated inspection area. |
| Photo showing a full hold of logs after fumigation and venting.  Photo showing a bundle of logs which were found to have insects are lifted from the hold that was fumigated. | **Ships Holds**   * A full hold of logs after fumigation and venting * A bundle of logs which were found to have insects are lifted from the hold that was fumigated. * Note how the sling is holding the logs in a safe manner. * To inspect the logs using a mallet and chisel, stand at the ends of the logs and remove sufficient samples to satisfy yourself that an effective fumigation was carried out. * Repeat this for all holds that had been fumigated. |

## Appendix 1: Sampling and inspection requirements for the log export – China

A screenshot of a diagram

Description automatically generated with low confidence

## Appendix 2: Sampling and inspection requirements for the log export – other countries (excluding China)

A screenshot of a diagram

Description automatically generated with low confidence

## Appendix 3: Export log inspection requirements for China and all other countries

The following table outlines the activities and inspection requirements related to the export of logs to China and all other countries.

|  |  |  |
| --- | --- | --- |
| **ACTIVITY** | **FOR CHINA**  **All logs** | **OTHER COUNTRIES**  **All logs (with and without bark)** |
| Initial inspection | Stack inspection, inspect 40 logs for stacks up to 2000 logs, or 60 logs for stacks greater than 2000 logs | Stack inspection, inspect 40 logs for stacks up to 2000 logs, or 60 logs for stacks greater than 2000 logs |
| All containerised log inspections done during daylight hours | All containerised log Inspections done during daylight hours |
| Fumigation | Fumigation requirements/heat treatment as listed in instructional material/Micor.  Fumigator to note serial number of gas cylinder on fumigation certificate and amount injected into the container. | Same process as now for countries that require mandatory treatment and logs that failed initial inspection/assessment  Fumigator to note serial number of gas cylinder on fumigation certificate and amount injected into the container |
| Fumigant concentration to be more frequently monitored (as per Micor) to ensure minimum CT (concentration/time) values maintained throughout fumigation period. This applies to all log exports. | Fumigant concentration to be more frequently monitored to ensure minimum CT (concentration/time) values maintained throughout fumigation period. This applies to all log exports. |
| Fumigator continue to monitor and record results. | Fumigator continue to monitor and record results. |
| Establishments where the initial inspection and fumigation takes place is approved by GSEP and has appropriate country (China) listing.  Establishments where fumigation takes places must also have the GFUMI registered function.  Temperature of the logs must be at or above the minimum allowable for fumigation to commence.  Fumigation is not permitted if the ambient temperature is expected to fall below (or commodity is below) the specified minimum temperature allowable (for the fumigant) during the exposure period. | Temperature of the logs must be at or above the minimum allowable for fumigation to commence.  Fumigation is not permitted if the ambient temperature is expected to fall below (or commodity is below) the specified minimum temperature allowable (for the fumigant) during the exposure period. |
| Second inspection  (re-inspection) | **Level 2 re-inspection.**  For the first 1–20 containers, sample 100 % of containers.  For the remainder of the consignment, sample 50 % of containers.  For example, consignment of 30 containers; the first 20 containers are sampled at 100 % and the remaining 10 containers are sampled at 50 %.  Log selection per inspected container (based on smallest log in each container):  <300 mm, sample 10 logs; 300–500 mm, sample 5 logs; >500 mm, sample 3 logs.  Inspection of 20 % of each log is required  Vessel holds, sample 2 slings, 20–30 logs per sling ‘fore and aft’ of each hold. | **Level 1 re-inspection (re-inspection only if fail stack inspection)**  For first 1–20 containers, sample 50 % of containers.  For the remainder of the consignment, sample 25 % of containers.  For example, consignment of 30 containers; the first 20 containers are sampled at 50 % and the remaining 10 containers are sampled at 25 %.  Log selection per inspected container (based on smallest log in each container):  <300 mm, sample 10 logs; 300 – 500 mm, sample 5 logs; >500 mm, sample 3 logs.  Inspection of 20% of each log is required  Vessel holds, sample 2 slings, 20–30 logs per sling ‘fore and aft’ of each hold. |
| COMPLIANCE ACTIVITY | Demonstration audits for all log establishments wanting to export to China and prior to commencing exports. Unannounced follow-up audits within 6 months will also be undertaken. | |
| Mandatory demonstration audit for companies previously listed as non-compliant to show compliance with new processes prior to gaining GSEP and country approval providing any certification for China (on recommencement of trade).  Following audits demonstrating acceptable compliance, the audit schedule may revert to risk-based auditing. |  |

## Appendix 4: Fumigation of logs for China

#### Fumigation requirements and responsibilities of the fumigators

* Inspection and fumigation of logs for export to China must be undertaken at an establishment with the relevant overseas country code CLNG.
  + Establishments where inspection and fumigation are being undertaken require the registered function GINLGC (inspection of logs for China) and the fumigation registered function (GFUMI),unless the fumigation occurs in a bulk vessel hold.
  + Where fumigation will be performed in a bulk vessel hold, the initial inspection establishment must have the registered function GINLGC (inspection of logs for China)
* If exporters are planning in-vessel hold fumigation of logs, please also refer to section below on vessel fumigation requirements.
* The establishment must engage a fumigator who holds the relevant state fumigation licence. Fumigators (including those providing in bulk vessel hold fumigation) must be listed on the [Grain and Seeds Exports Program](#_Contact_information) (GSEP) approved fumigator list.
* GSEP will recognise fumigators registered as a Biosecurity approved arrangement Class 12.1 and 12.2 (as equivalent to GSEPs fumigator approval requirements) until lists have been developed. [Sites operating under an approved arrangement - DAFF (agriculture.gov.au)](https://www.agriculture.gov.au/biosecurity-trade/import/arrival/arrangements/sites)
* The fumigator/establishment must have and use fumigation monitoring equipment, including sampling tubes and temperature probes.
* For 24-hour fumigations readings are to be taken at the start (when equilibrium has been reached), at 2 hours after equilibrium, at 16 hours after equilibrium and at 24 hours (end of fumigation).  
  **Please note:** This overrules the monitoring requirements outlined in the [Methyl Bromide Fumigation Methodology](#_Related_material_2)**.**
* As per normal fumigation requirements, if gas readings are below requirements at monitoring times, topping up of gas is required as per methyl bromide methodology.

#### Prerequisite and Application requirements for Log exports to China

* Registered establishment operators must submit an application to the [Grain and Seed Exports Program](#_Contact_information) (GSEP) detailing how they will meet all requirements for log exports to China.
* Establishment operators must advise GSEP when they intend to start exporting.
* Establishment operators will then be scheduled for an audit. Once an establishment has passed audit and can meet all requirements, GSEP will have the country code and registered operation/s added to the establishment details.

### Requirements for fumigation of logs in bulk vessels

Fumigation of logs for export to China in bulk vessel holds must be approved by the [Grain and Seed Exports Program](#_Contact_information) **prior** to the commencement of loading the holds and each fumigation event.

**Please note:** Consignments for which loading and fumigation commenced prior to approval of fumigation plans will not be authorised.

The fumigator must provide a fumigation plan to [Grain.Export@aff.gov.au](mailto:Grain.Export@aff.gov.au) containing the following for the Grain and Seed Exports Program’s consideration:

* Permit issued by the APVMA allowing use of fumigant in-hold
* Fumigation plan including re-circulation method and monitoring lines and their locations
* Method of sealing holds during fumigation
* Method of clearing the fumigant from the hold/consignment
* Method used to provide gas free certification
* A treatment draft certificate from the licensed fumigator containing:
  + dosage (grm/m3), temperature (℃), and duration of treatment (hours/days) in accordance with China’s import conditions and the [logs to China Micor case](http://micor.agriculture.gov.au/Plants/Pages/China_CN/All4.aspx)
  + vessel name and IMO, destination (China) and holds to be treated
  + commodity and quantity
  + signature by a licensed fumigator including contact details.

**Note:** The completed certificate must be uploaded into PEMS prior to re-inspection of the logs.

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