

ALSC/ISPM 15 FUMIGATION REQUIREMENTS

This document provides information to assist fumigators and facilities in conforming to ALSC and USDA requirements in the methyl bromide fumigation of WPM to ISPM 15 standards.

Wood packaging material containing a piece of **wood exceeding 20 cm in cross-section (7.87") at its smallest dimension must not be treated with methyl bromide.**

The fumigation of wood packaging material with methyl bromide must be in accordance with the schedule specified in Table 1. This concentration-time (CT) must be achieved throughout the profile of the wood, including its core, although the concentrations would be measured in the ambient atmosphere. **The minimum temperature of the wood and its surrounding atmosphere must not be less than 10 °C (51.8°F) and the minimum exposure time must not be less than 24 hours.** Monitoring of gas concentrations must be carried out at a minimum at 30 minutes, 2, 4 and 24 hours from the beginning of the treatment. Minimum concentration levels at each timed reading are listed in T404-e-1. (See notes 1 and 2 under T404-e-1 for closed-door containers)

If the CT is not achieved at the 24 hour reading (maximum 5% off), the material can be left in the fumigant for an additional 2 hours to meet conformance. Any other timed reading not meeting the schedule below will require restarting the fumigation process with additional fumigant being added to reach the required CT.

T404-e-1 Regulated wood packing material (WPM)

Two alternative treatments

Pest: Various

Treatment: T404-e-1—MB at NAP—tarpaulin

Temperature	Dosage Rate (lbs./1,000 ft ³)	Minimum Concentration Readings (ounces) At:			
		0.5 hr ¹	2 hrs ²	4 hrs.	24 hrs.
69.8 °F or above	3 lbs.	36	36	31	24
61°-69.8 °F	3.5 lbs.	42	42	36	28
51.8°-61 °F	4 lbs.	48	48	42	32

- 1 If the fumigation is conducted in a closed-door container, take the first reading at 1.0 hour instead of 0.5 hours.
- 2 If the fumigation is conducted in a closed-door container, take the second reading at 2.5 hour instead of 2 hours.

Treatment providers are required to implement the following processes for methyl bromide fumigation to meet the treatment requirements.

- Change drierite in fumiscope box in order to properly remove moisture from tubes and attain proper readings from the fumiscope; active Drierite is blue, inert is pink. A moisture absorbing filter may also be acceptable.
- Fans are used during the gas distribution phase of fumigation to ensure equilibrium is reached and positioned to make certain the fumigant is rapidly and effectively distributed throughout the fumigation enclosure (preferably within the first hour of application). The minimum airflow is 2500 rpm so a regular box fan set on high can be used to distribute gas. It should be set at the top of the container where there is space for the gas to circulate and should be run for 30 minutes to an hour to allow for proper circulation. Even though MB is heavier than air, once circulated it tends to hang where it is. If properly circulated, when first distributed, readings should maintain the proper levels during the treatment process without additional circulation taking place.

- The fumigation enclosure is not loaded beyond 80% of its volume.
- The fumigation enclosure is well sealed and as gas tight as possible. If fumigation is to be carried out under tarps, these are made of gas-proof material and sealed appropriately at the seams and at floor level.
- The fumigation site floor is impermeable to the fumigant (concrete, asphalt, tight wood surfaces are OK); if it is not (i.e. soil, gravel or other porous surfaces), gas-proof tarps are laid on the floor.
- 4 mil vinyl or polyethylene plastic tarpaulins are only approved for one usage; 6 mil vinyl or polyethylene plastic tarpaulins may be used up to four times; 10 to 12 mil rubber or plastic coated nylon tarpaulins may be approved for multiple use.
- Methyl bromide treatment is not carried out on stacked wood packaging material exceeding 20 cm (7.8") in cross-section at its smallest dimension. Therefore, stacked wood packaging material may need separators to ensure adequate methyl bromide circulation and penetration.
- The concentration of methyl bromide in the air space is always measured at a location furthest from the insertion point of the gas as well as at other locations throughout the enclosure. **A minimum of 3 leads are utilized with a fumiscope during the treatment process (e.g. at front bottom, center middle and back top) to confirm that uniform distribution of the gas is reached.** Treatment time is not calculated until uniform distribution has been reached.
- When calculating methyl bromide dosage, compensation is made for any gas mixtures (e.g. 2% chloropicrin) to ensure that the total amount of methyl bromide applied meets required dose rates.
- Initial dose rates and post-treatment product handling procedures take account of likely methyl bromide sorption by the treated wood packaging material or associated product (e.g. polystyrene boxes).
- The Draeger tube cannot be used to measure fumigant levels during the treatment process but can be used to determine if the area is safe for personnel after the aeration process is completed.
- The measured or expected temperature of the product or the ambient air immediately before or during treatment (**whichever is the lowest**) is used to calculate the methyl bromide dose. A heat source may be required at times to insure the temperature can stay above 51.8°F.
- Wood packaging material to be fumigated **is not** wrapped or coated in materials impervious to the fumigant.
- Temperature and gas concentration sensors and data recording equipment are calibrated in accordance with the manufacturer's instructions annually.
- For the purposes of auditing, the treatment provider keeps records of methyl bromide treatments and calibrations for a minimum of two years.

PROGRAM CLARIFICATIONS

A. RECORD KEEPING

1. The board footage of incoming material labeled MB by an ALSC accredited agency should be recorded for each month.
2. Invoices or bills of lading related to the purchase of MB material should be maintained for verification purposes.
3. Outgoing shipments of WPM labeled with the IPPC mark must be recorded on board footage (BF) basis for each month. Cut sheets, shipping tickets, or residual inventory count related to this material should also be maintained for verification purposes.
4. Fumigators are required to provide 48 hour notification prior to performing fumigation. This notification form shall be attached to the fumigation report to verify this process was completed.

B. FACILITIES RECEIVING MB LUMBER

1. Incoming MB lumber shall be marked to include a minimum of the following:
 - a. Complete and legible "MB" designation
 - b. Complete identifying symbol, logo or name of the ALSC accredited agency
 - c. Complete and legible mill origin identification number or name
2. Incoming MB lumber shall be kept separate from non-treated Lumber.

C. MANUFACTURING & MARKING

1. TP has licensed the use and application of its marks to complying wood packaging products manufactured by this facility. All TP marks must be submitted to and approved by the TP office prior to use.
2. TP marks are permanently assigned to the physical address of the contract. All other locations must be contracted separately regardless of the proximity to the original licensee.
3. Dunnage produced with properly labeled and documented MB wood as well as Dunnage which has been fumigated by an approved fumigator must be stamped a minimum of one time with the corresponding IPPC Dunnage mark.
4. IPPC and IPPC Dunnage marked wood packaging material shall consist entirely of debarked wood. For this standard, any number of visually separate and clearly distinct small pieces of bark may remain if they are:
 - a. less than 3 cm in width (regardless of the length) or
 - b. greater than 3 cm in width, with the total surface area of an individual piece of bark less than 50 square cm.
 - c. Non-conforming bark must be removed before fumigation. If non-conforming bark is found on fumigated WPM the marks require obliteration and can be remarked only after it has been re-subjected to the fumigation process.
5. The use of red and/or orange ink colors in conjunction with TP marks is prohibited.

D. RECEIPT OF PREVIOUSLY IPPC MARKED WPM

If a TP subscriber replaces wood components of previously IPPC marked WPM, the subscriber must obliterate all previous ISPM 15 related markings (regardless of future use - domestic or international).

To obliterate means to render the approved mark or stamp unreadable or clearly inapplicable. Examples of obliteration of the approved mark or stamp include, but are not limited to removal by sanding or abrasion, over-stamping with opaque indelible ink or paint applied in a solid block, a multiple 'x' stamp or other means of over-marking with opaque indelible ink or paint. Marking through the approved mark or stamp with a semi-transparent ink, paint, or crayon which allows full, though possible reduced visibility of the approved mark or stamp does not constitute obliteration.

E. NOTIFICATION OF FUMIGATION

Advanced notice shall be made at least 48 hours in advance to allow any possible audits to occur by either the agency or ALSC. In cases where 48 hours' notice is not possible (for example, due to contractual or regulatory obligations), advance notice shall be made at the earliest possible juncture. The fumigator/facility responsible for the fumigation shall maintain all pertinent records including time and date-stamped photographs or video showing all stages of the initial fumigation set up, evidence of the material fumigated, and the 0.5, 2, 4, and 24 - hour mark fumiscope readings. Readings cannot be taken before the time required point but can be within 30 minutes after the time required point has occurred. These required records should be kept by the facility per the agency record retention requirements.

- a. 48 hours' notice must be given prior to treatment to allow the agency or ALSC an opportunity to audit the treatment.
- b. ALL fumigators must provide documentation of the treatment to verify conformance. This will be done in the form of time and date stamped videos and/or pictures that show the fumiscope readings (time and concentration) were properly met.**
- c. Fumiscope readings must be made at the .5, 2, 4, and 24 hours mark.
- d. These records must be kept by the facility for review by the agency and ALSC and kept per record retention requirements.