



**PERMIT TO ALLOW USE OF REGISTERED CHEMICAL PRODUCTS  
FOR IN-TRANSIT FUMIGATION OF EXPORT CEREAL GRAIN IN SHIPS.**

**PERMIT NUMBER - PER11255**

This permit is issued to the Permit Holder in response to an application granted by the APVMA under section 112 of the Agvet Codes of the jurisdictions set out below. This permit allows a person, as stipulated below, to use the product in the manner specified in this permit in the designated jurisdictions. This permit also allows any person to claim that the product can be used in the manner specified in this permit.

**THIS PERMIT IS IN FORCE FROM 30 SEPTEMBER 2009 TO 30 NOVEMBER 2024**

**Permit Holder:**

GENERA FUMIGATION SERVICES PTY LTD  
51 Sydney Street  
WILLOUGHBY NSW 2068

**Persons who can use the product under this permit:**

Appropriately licensed Fumigators (in each jurisdiction) employed or contracted by the Permit Holder.

## CONDITIONS OF USE

### Product to be used:

FUMAPHOS FUMIGATION BLANKET (APVMA No. 52019)

Containing: 330 g/kg PHOSPHINE (PH<sub>3</sub>) present as ALUMINIUM PHOSPHIDE as the only active constituent.

QUICKPHOS-EZY FUMIGATION BLANKET (APVMA No. 59331)

Containing: 570 g/kg PHOSPHINE (PH<sub>3</sub>) present as ALUMINIUM PHOSPHIDE as the only active constituent.

QUICKPHOS FUMIGATION BLANKET (APVMA No. 47322)

Containing: 570 g/kg PHOSPHINE (PH<sub>3</sub>) present as ALUMINIUM PHOSPHIDE as the only active constituent.

FUMAPHOS FUMIGATION TABLETS (APVMA No. 52020)

Containing: 330 g/kg PHOSPHINE (PH<sub>3</sub>) present as ALUMINIUM PHOSPHIDE as the only active constituent.

QUICKPHOS FUMIGATION TABLETS (APVMA No. 46948)

Containing: 334 g/kg PHOSPHINE (PH<sub>3</sub>) present as ALUMINIUM PHOSPHIDE as the only active constituent.

### Directions for Use:

Situation	Purpose	Rate
IN-TRANSIT FUMIGATION OF CEREAL GRAINS IN SHIP HOLDS	TREATMENT FOR EXPORT REQUIREMENTS OF IMPORTING COUNTRIES	Apply at a rate not exceeding a maximum concentration of 3 g per cubic metre.  (see note below regarding rates higher than 1.5 g per cubic metre).

### Critical Use Comments:

The product (tablets or pellets) must be contained in a manner so as to avoid direct contact of the product with grain. This will require placing the product in “fumigation bags” (either “socks” or “sleeves”) that are positioned on top of or slightly below the grain surface.

All products (tablets, pellets and/or blankets) when positioned in the cargo must be tied off in a manner so as to enable removal following ventilation and prior to out loading of the commodity (grain) at the port of destination.

Rates utilized may only exceed 1.5 g per cubic meter (up to a maximum of 3 g per cubic meter) where it is a requirement of the importer. The permit holder must maintain copies of official documents of the importer as evidence that rates higher than 1.5 g were required/stipulated. Appropriate records must be maintained and provided to the Australian Pesticides and Veterinary Medicines Authority (APVMA) or the Australian Maritime Safety Authority (AMSA) immediately upon request.

### Jurisdictions:

NSW, QLD, SA, VIC & WA ONLY.

## Additional Conditions

### **International Maritime Organization (IMO) ‘Recommendations on the Safe use of Pesticides in Ships Applicable to the Fumigation of Cargo Holds’**

1. All activities undertaken with the use phosphine under this permit must adhere to ALL requirements outlined in the permit, and must adhere to ALL fumigation procedures, practices, standard operating procedures and auditing requirements as stated in the current version of the International Maritime Organization’s ‘*Recommendations on the Safe use of Pesticides in Ships Applicable to the Fumigation of Cargo Holds*’ [MSC. 1/Circ. 1264, 2008].
2. The vessel must carry a copy of the current published version of IMO’s “*Recommendations on the Safe Use of Pesticides in Ships*” [MSC. 1/Circ. 1358, 2010] and “*Recommendations on the Safe Use of Pesticides in Ships Applicable to the Fumigation of Cargo Holds*” [MSC. 1/Circ. 1264, 2008].

### **Fumigator-in Charge**

3. The permit holder in consultation with the contracted fumigation company must appoint a ‘Fumigator-in Charge’.
4. The company applying the fumigant should have documented procedures in place to ensure that the IMO recommendations, and those of Australian Maritime Safety Authority (AMSA), as a minimum are satisfied.
5. The ‘Fumigator-in Charge’ must be able to provide documentary evidence of competence, and authorization to an AMSA Surveyor, APVMA, NOHSC or State OH&S agencies.

### **Pre-fumigation inspection, AMSA notification and other requirements**

6. The Australian Maritime Safety Authority (AMSA) must be notified prior to any shipment of fumigated cargo. Notification must be as soon as possible but not later than 72 hours before the vessels arrival. The notification must include:
  - a) Name of Ship
  - b) IMO Number
  - c) Flag State
  - d) Agent
  - e) Name and contact details of Fumigator
  - f) Cargo details
  - g) Vessels berthing and departure details
7. A full assessment of venting/air intake inlets and air-conditioning system (including sanitary vents, galley vents and engine room ventilators) must be undertaken for all manned areas (including crews quarters) by the ‘Fumigator-in-Charge’ and written instruction must be provided to the Master/Captain (before ship sets sail) on requirements for ‘shut-down’ during the ventilation process.

8. The 'Fumigator-in Charge' must undertake a thorough inspection of the vessel prior to loading, and all potential leakage areas must be identified following visual inspection and also by physically testing to ensure that holds are sufficiently gas tight prior to the application of the fumigant. The testing must be conducted via hose testing, smoke testing or ultrasonic/s, alternative methods must be approved in writing by the APVMA.
9. If the vessel is found to be unsuitable and not capable of being made suitable during the loading period, the vessel must be rejected and treatment may not be undertaken. The vessel may be sealed and repairs undertaken following recommendations by the 'Fumigator-in-Charge' to make the hold(s) gastight and re-inspection and gastight testing must be undertaken by the 'Fumigator-in Charge'.
10. All potential ignition sources (including flammable materials other than the fumigant) must be removed from the hold and electrical circuits isolated. The 'Fumigator-in-Charge' must provide written instruction to the Master/captain (before ship sets sail) that this has taken place.
11. Where fire detection and/or fixed firefighting extinguishing equipment are fitted to the holds, care must be taken to ensure that this equipment does not provide an avenue for leakage of fumigant. Where it is necessary to isolate such systems, approval in writing, from the Flag State Administration will be required on board the vessel, prior to fumigation.
12. Placarding – The fumigator must provide and erect appropriate placards for phosphine immediately prior to fumigation. Placards must be used for the purpose of providing a warning sign for holds/areas under fumigation. The placards must comply with the IMO requirements for placarding, and must also contain any additional requirements outlined by AMSA. The placard must also contain a subsidiary risk pictogram of 'Flammable Gas'. Placards must remain in place for the entire duration of the voyage and may not be taken down until all residues have been removed from the ships holds.
13. The fumigator shall ensure that the ships complement is aware of the signage required by the current IMO recommendations. Appropriate signage should also be placed on the hold bilge suction chest in the engine room.
14. The Master/Captain is responsible for ensuring the requirements of the vessels Flag State are complied with in regard to in-transit fumigation. Where Flag State and AMSA requirements differ then the more stringent requirements shall apply.
15. The vessels agent shall notify persons intending to visit the vessel that fumigation will be taking place on board and access may be restricted. This would include for example, stevedores, wharf personnel, contractors, surveyors, and Government Officials and the like. It is also advised that the expected timeframe of restriction should be included in any notification.
16. The Master/Captain of a vessel with holds under fumigation should ensure that relevant bodies, including the Harbour Master are notified prior to the vessel arriving at or transiting a port.

17. AMSA may attend the vessel to ensure that the IMO and AMSA requirements have been met. On visiting the vessel an AMSA Surveyor may verify, but not be limited to, the following:
- a) The sealing arrangements of hatches and vents.
  - b) Ensure that the fumigator has/is carrying out the fumigation process as per requirements.
  - c) Ensure that safety equipment has been provided.
  - d) The vessel has procedures and contingencies (preferably as part of their SMS) related to the carriage of fumigated cargo.
  - e) The vessel has conducted appropriate drills.
  - f) To check that the vessels safety equipment, such as B/A's are in operational condition.
  - (g) To ensure that the Master/Captain and his crew have been provided with information and training, and the understanding of such. For example, demonstrate use of meters, unsafe areas and medical arrangements.
18. An AMSA Surveyor has right to not allow a vessel to sail unless the requirements of the IMO recommendations and those of AMSA have been satisfied.

## **Training**

19. The 'Fumigator-in-Charge' must ensure that designated crew members are trained in all aspects of the fumigation process. The 'Fumigator-in-Charge' must supply the ships Master with all relevant safety equipment (including phosphine detector and respiratory protection equipment).
20. The training requirements set out in the IMO procedures must be followed; in addition the 'Fumigator-in-Charge' and the permit holder must ensure that all crew members are provided adequate training in the following issues (particular attention must be made in the use of phosphine gas monitors and the wearing of respiratory equipment). This training must be undertaken prior to each vessel setting sail, regardless of previous training that may have been undertaken for earlier voyages. All crew members trained must be evaluated prior to departure to ensure that all members have an adequate understanding of all matters covered.
21. All workers involved in in-transit fumigation with phosphine must be adequately trained in fumigation procedures on ships, as specified in "*Recommendations on the Safe Use of Pesticides in Ships Applicable to the Fumigation of Cargo Holds*" [MSC. 1/Circ. 1264, 2008], issued by the International Maritime Organization's Maritime Safety Committee, for the safe use of fumigants (phosphine gas) for ships in transit.
22. At least 2 members of the crew (including 1 officer) in addition to the Ships Master must receive appropriate training on the fumigation and venting process. In particular, this training must include:
- a) Comprehensive instruction on fumigation procedures
  - b) Hazards of aluminium phosphide and phosphine
  - c) Copies of Safety Data Sheets (SDS) and labels
  - d) First aid treatment of phosphine poisoning
  - e) Emergency procedures
  - f) Use and maintenance of personal protective equipment (particularly respiratory equipment)
  - g) Use of phosphine monitoring equipment
  - h) Accurate record keeping

23. The crew must be aware that there should be no reliance placed on the “smell” of the fumigant to indicate hazardous concentrations and the need for frequent and appropriate testing, and the use of personal protective equipment.
24. Training undertaken must include a copy of this permit to be provided to all crew members, and all details and conditions of this permit must be explained to all crew members as a component of training.
25. Records of induction and training must be kept by both the ‘Fumigator-in Charge’ and the permit holder for a period of at least 5 years as required under *National Code of Practice for the Control of Workplace Hazardous Substances* [NOHSC: 2007 (1994)]. These records must be made available to the relevant authorities, including APVMA, AMSA, NOHSC and State OH&S agencies.
26. Safety Data Sheets (SDS) must be made available to all crew members and workers using/handling products containing aluminium phosphide and phosphine in fumigation procedures, and a copy of the SDS must be supplied to the ships Master/Captain and carried on board at all times during the voyage.

## **Fumigation**

27. All personnel, except the ship’s crew and those persons involved in the fumigation process, shall either remain in the accommodation or have disembarked the vessel prior to fumigation.
28. On completion of bulk loading and sealing work, the fumigant must be applied by suspending the phosphine source (i.e. product) in the hold’s head space, above the cargo. Because of the potential for increased exposure to phosphine from contamination of aluminium phosphide with water, particular attention should be made to locate the fumigant in an area that reduces potential for contact with water.
29. Aluminium phosphide and phosphine (relevant to the product being used) is to be applied at a concentration (weight per volume) not exceeding a concentration of phosphine gas of 1.5 g/m<sup>3</sup>. Concentrations may only exceed 1.5 g/m<sup>3</sup> (up to a maximum of 3 g/m<sup>3</sup>) where it is a requirement of the importer. The permit holder must maintain copies of official documents of the importer as evidence that rates higher than 1.5 g were required/stipulated. Appropriate records must be maintained and provided to the APVMA or AMSA immediately upon request.
30. Fumigation must only be carried out at the ship Master’s/Captain’s discretion.
31. Fumigation may only be undertaken by the ‘Fumigator-in Charge’ and other licensed fumigators under the direction of the ‘Fumigator-in Charge’.
32. Fumigation must only be applied to spaces containing bulk cargo, (i.e. cargo holds).
33. Loading of the vessel must be completed prior to the commencement of application of the fumigant. Where, in the circumstances of on deck cargo, securing takes place after loading is complete, application of the fumigant in the holds may only be commenced when provisions are in place for the continuous monitoring of the fumigant.

34. The Master/Captain and 'Fumigator-in Charge' must ensure that, prior to the application of the fumigant, all flammable materials be removed from the space and that all electrical circuits leading to that space, including lighting circuits, are positively isolated.
35. A watchman must be placed at the gangway and shall not allow unauthorised persons on board whilst the fumigation process takes place. Clear instructions on his/her responsibilities with regard to this duty need to be provided by the Master/Captain and the 'Fumigator-in-Charge' as appropriate. It is also recommended that the vessels crew, where possible, remain indoors during this process.
36. Cargo holds sealed for fumigation must not be re-opened (except for ventilation) unless exceptional circumstances warrant it.

### **Phosphine monitoring (prior to departure, in-transit, ventilation & equipment)**

#### *Prior to departure*

37. The 'Fumigator-in Charge' must undertake monitoring for phosphine leakage(s) prior to the vessel setting sail.
38. A sufficient period of time must be provided, after application, to allow the fumigant to reach an appropriately high enough concentration, in all treated holds, to effectively test for leaks. The vessel must remain in port for a further six hours after this concentration is achieved, or such longer period as is, in the opinion of the 'Fumigator-in Charge', required to verify whether fumigant is leaking from a fumigated space. During this period, the 'Fumigator-in Charge' must carry out periodic checks for leakage(s). The final test shall be carried out at the end of the 6 hour period, or such longer period as determined by the 'Fumigator-in Charge'.
39. Where leakage is apparent, steps must be taken to stop the leakage. Additional testing over a sufficient period of time must be undertaken to ensure leakage has ceased. Where leakage of fumigant has been detected in an enclosed space a clearance certificate will be required for each space into which fumigant has leaked prior to the vessel being able to leave port. The 'Fumigator-in Charge' shall maintain a log detailing these items and this shall be provided to AMSA on dispatch. The log should provide details of occurrences, findings and actions related to these items.
40. The vessel must not depart port until the above monitoring requirements are fulfilled; no leakages are detectable and only following clearance by the 'Fumigator-in Charge'.

#### *In-transit*

41. Monitoring of the atmosphere of accommodation, engine room and working spaces for fumigant is to be carried out on each watch (4 hourly intervals) for the first 48 hours after departure from port and then 8 hourly for the duration of the voyage, (unless more frequent intervals are advised by the 'Fumigator-in Charge').
42. Phosphine gas concentration measurements must be carried out for leakage monitoring directly above the cargo surface (using gas detectors) to ensure that the gas concentration is below the Threshold Limit Value (TLV) Exposure Standard. Respiratory equipment must be worn during this activity.

43. The pumping of hold bilges, where required, should be carried out with caution by appropriate ships staff. Monitoring of the atmosphere around the bilge pumping arrangements should take place during pumping procedures. The monitoring should be conducted by the 'Fumigator-in Charge', should he/she sail with the vessel, where this is not the case, an appropriately trained member of the ships staff.
44. At regular intervals of at least every 8 hours until ventilation, spaces adjacent to the areas containing fumigated cargo and all other regularly occupied areas, including accommodation, engine room spaces, crew's quarters, shafts/manholes and other manned areas, must be monitored for phosphine leakage using appropriate gas detection/monitoring equipment. This monitoring must be conducted by a person who is suitably trained in the use and handling of the gas detection/monitoring device to ensure quality and correct readings occur.
45. If levels are in excess of the exposure standard (TLV) are measured in any areas at any time during the fumigation process, the relevant leakage area(s) must be immediately identified, those areas evacuated and the leakage areas resealed.

### *Ventilation*

46. During the first 12 hour period after ventilation commences, monitoring of accommodation, engine room spaces, crews quarters, shafts/manholes and other manned areas must be carried out at least every 2 hours; thereafter every 4 hours for a 48 hour period and until discharge is complete and gas levels within the holds are below the Threshold Limit Value (TLV) Exposure Standard of 0.3 ppm (0.0004 mg/L).
47. If levels are in excess of the exposure standard (TLV) are measured in manned areas at any time during the ventilation process, the relevant area(s) must be evacuated and the hold(s) resealed.
48. NOTE: The Master/Captain must pay attention to venting procedures specified under the current IMO Recommendations which involve arrangements at the discharge port.

### *Equipment*

49. The gas monitoring/detection equipment must be capable of being set to give an alarm when phosphine levels at, and above the exposure standard of 0.3 ppm (0.42 mg/m<sup>3</sup>) or higher.
50. At least two monitoring devices must be made available to the crew. The gas detection/monitoring equipment must be serviced after every trip. Unless detectors are self-calibrating, re-calibration should be carried out before each trip. New batteries must be supplied and fitted to monitoring equipment prior to every trip (voyage). Sufficient service items must be provided for the testing to be carried out. For an electronic sensor this must include sufficient batteries and sensor elements, for a reactive type sensor enough tubes must be available in the event of failure. At minimum one additional battery supply must be provided to and carried by the ships Master/Captain for each detector.

### **Emergency procedures in the event of gas leakage**

51. Emergency procedures must be developed and recorded by the 'Fumigator-in Charge' and these details must be provided and explained to the ships Master/Captain prior to



departure. Should a gas leak be detected, the location and origin of the leak must be immediately identified using the gas detector and appropriate action must be taken immediately in sealing it. Respiratory protection must be used during these procedures. Cargo holds sealed for fumigation must not be re-opened (except for ventilation) unless exceptional circumstances warrant it. If a fumigated hold needs to be opened, entry must be made by at least 2 crew members, wearing adequate protective equipment.

52. All incidents where emergency procedures are required and/or prior entry to the holds during fumigation is undertaken these incidents must be recorded and provided to the APVMA and AMSA.

### **Ventilation (aeration) procedures (while the ship is in-transit).**

53. Following treatment (i.e. when sufficient time has elapsed for the fumigation process to be effective) the fumigated holds must be ventilated to allow escape of phosphine gas. This ventilation must take place at sea and not within proximity to any port or other ships. Ventilation must commence at a minimum of 48 hours before the arrival of the ship at port. The ship must not dock until monitoring of gas levels within the holds is below the acceptable Threshold Limit Value (TLV) Exposure Standard of 0.3 ppm (0.0004 mg/L).
54. Aeration of holds is carried out by opening the ventilation system and /or access hatches. It is recommended that vessels if required change direction to make most use of available wind conditions to assist in ventilation. All crew members except those (designated crew members equipped with PPE) carrying out the 'ventilation opening' must remain inside their quarters for the first 24 hours of ventilation and until monitoring indicates that gas levels within the holds are below the Threshold Limit Value (TLV) Exposure Standard of 0.3 ppm (0.0004 mg/L).
55. Crew involved in the ventilation process must ensure that appropriate personal protective equipment (PPE) is worn.

### **Removal of aluminium phosphide residues**

56. The crew must not attempt to enter the hold to remove spent fumigant (sacks of residue). No aluminium phosphide residues may be removed from holds until the ship has reached port. On completion of the voyage and when at port only appropriately trained or licensed fumigators may remove the aluminium phosphide residues.
57. Phosphine gas concentration measurements must be carried out directly above the cargo surface (using gas detectors) to ensure that the gas concentration is below the Threshold Limit Value (TLV) Exposure Standard of 0.3 ppm (0.0004 mg/L). Respiratory equipment must be worn during this activity. Provided levels are below 0.3 ppm (0.0004 mg/L), the ship may dock at port and residues may be removed. The residues must be removed in Hessian sacks, and be stored in a well-ventilated area until disposed of by the nominated fumigant company.
58. The licensed fumigator must wear appropriate safety equipment when entering holds, removing and handling the residues.

## Occupational Health and Safety

59. The vessel must carry a copy of the latest version of the “Medical First Aid Guide for Use in Accidents Involving Dangerous Goods” (MFAG).
60. The vessels Safety Management System [under element 7 of the International Safety Management Code, “Development of Plans for Shipboard Operations”] should provide for procedures and contingencies related to the carriage of fumigated cargo. Appropriate drills should also be conducted and recorded. Such drills would include but not be limited to:
  - a) Confined space entry
  - b) Tank and hold rescue
  - c) Breathing apparatus drills
  - d) Medical assistance
61. The Safety Management System plans and drill records must be made available to the attending AMSA surveyor upon request.
62. All external accommodation portholes and doors should not be left open at any time during the voyage. Particular attention should be paid to the accommodation air-conditioning system (this system could be placed in recirculation and/or positive pressure where appropriate).
63. The vessel shall carry two sets of self-contained breathing apparatus (SCBA) in addition to those required by Regulation 17, Chapter II-2 of SOLAS. This should also include two additional safety harnesses lifelines, spare bottles and appropriate personal protective clothing (these SCBA are also in addition to the respiratory equipment required under the current IMO recommendations).
64. Workers must not be exposed to the short term exposure limit (STEL) concentration of 1 ppm (1.4 mg/m<sup>3</sup> or 0.001 mg/L) continuously for longer than 15 minutes duration or more than four such periods per 8 hour shift (provided that a minimum of 60 minutes be allowed for a worker between successive exposures).
65. Because of the potential for increased exposure to phosphine from contamination of aluminium phosphide with water, particular attention should be made to locate the fumigant by suspension and in an area that reduces potential for contact with water.
66. Additional supplies of aluminium phosphide fumigant must not be carried on the ship, unless a licensed fumigator sails with the ship. These supplies may only be handled and used by that licensed fumigator and must not be used/applied by vessels crew. The carriage of aluminium phosphide on ship must be undertaken in accordance with the requirements of the International Maritime Dangerous Goods Code.
67. In addition to the training requirements of IMO procedures, the ‘Fumigator-in-Charge’ and permit holder must ensure that all crew members are provided adequate training as stated above under ‘Training’.
68. Material Safety Data Sheets (MSDS) must be made available to all workers using/handling products containing aluminium phosphide and phosphine in fumigation procedures, and a copy must be supplied to the ships Master/Captain and carried on board at all times during the voyage.

69. Employers must ensure that all employees with the potential for exposure to aluminium phosphide or phosphine are provided with regular health checks.

*Personal Protective Equipment*

70. Personal protective equipment for crew members involved in in-transit fumigation practices (e.g., monitoring and hold re-entry), the following equipment must be worn.
- a) Rubber gloves, and
  - b) Full face piece respirator with combined dust and gas canister or supplied air respirator (i.e., air-hose respirator or air-line respirator or self-contained breathing apparatus).
71. New filters should be supplied for every trip (voyage).

*Safety Directions*

72. Very dangerous product. Releases dangerous phosphine gas slowly in moist air and immediately if wet. Can kill if inhaled or swallowed. Do not inhale dust or vapour. Avoid contact with eyes and skin. Open container in the open air. Keep away from water and liquids. Keep away from naked flames – forms toxic gas. Use entire contents in one operation; if not possible, seal thoroughly with waterproof adhesive tape or air-tight closure.

*Personal Protection Statements*

73. When opening the container and using the product wear rubber gloves and when using in enclosed areas, wear full face piece respirator with combined dust and gas cartridge or supplied air respirator. Wash hands after use.

*Precautionary statements*

74. Only to be used by licensed or suitably trained personnel for in-transit fumigation.
75. Do not cover or place/use aluminium phosphide in confined spaces (as this may increase the risks of fire/explosion).
76. Do not enter fumigated areas when phosphine levels exceed 0.3 ppm (0.0004 mg/L) TWA [NOHSC 1995]. If prior entry is required, workers should wear a full face piece respirator with combined dust and gas cartridge or a supplied air respirator.

## Records

77. The permit holder and the 'Fumigator-in Charge' must maintain records of each use carried out under this permit. Specifically details must include as a minimum the date and location where the use was conducted, commodity treated including tonnages, rates and duration of application, total amount of product used, the name of the ship its Master/Captain and each crew member and the names and address of the 'Fumigator-in Charge'. Additionally official documents outlining the requirements of the importer must be maintained where rates in excess of 1.5 g per cubic metre (but not exceeding 3 g per cubic metre) have been used. These details must be maintained for a minimum period of thirty years from the date of treatment and must be made available to the APVMA, AMSA, NOHSC and State WH&S agencies immediately upon request.
78. The fumigator, or alternatively the Master/Captain (where the fumigator does not sail with the vessel), must provide AMSA with a copy of the fumigant concentration readings of adjacent spaces logged on a regular basis (intervals as detailed above under Monitoring) on completion of the voyage. These spaces include:
  - a) Accommodation
  - b) Engine rooms
  - c) Bridge
  - d) Frequently visited work areas or stores
  - e) Other appropriate spaces as may be indicated by the fumigator in charge
79. Details of any observed high concentrations, leaks and subsequent action taken must also be provided.
80. All records of monitoring, induction and training and adverse health experience (incidents) should be kept for each voyage and be made available to the APVMA, AMSA and NOHSC upon request.
81. Records of adverse incidents (including adverse health reports) must be made available, as a matter of procedure, and as soon as practically possible to relevant authorities, including the APVMA, AMSA, NOHSC and State WH&S agencies. These adverse incident (including adverse health reports) records must be kept for a minimum period of 30 years.
82. In the event of an incident being reported, action must be taken by the contracted fumigator, as soon as practicable, to reassess procedures and to provide appropriate controls to minimize further risk(s) to health and safety.
83. Monitoring results for each daily operation must be recorded together with location (site). These records must be kept for a minimum period of 30 years, and be made available to employees (with potential for exposure to phosphine) and relevant public authorities, including the APVMA, AMSA, NOHSC and State WH&S agencies upon request.
84. All incidents where emergency procedures are required and/or prior entry to the holds during fumigation is undertaken these incidents must be recorded and provided to the APVMA and AMSA as soon as practical.

## Exporter/Trader of grain

85. The exporter must ensure that export destinations for treated cereal grain has established appropriate tolerances (Maximum Residue Limits) for hydrogen phosphide in cereal grain, and that any residues resulting from treatment under this permit meet tolerances established by the importing country.
86. Prior to treatment the grain exporter/trader who is commissioning the permit holder to undertake fumigation for the purposes of this permit must provide in writing to the APVMA that they have witnessed a copy of this permit and acknowledge and understand all permit conditions.

Issued by the Australian Pesticides and Veterinary Medicines Authority

### Note:

1. 30/09/2009 - Permit extended until 6<sup>th</sup> November 2009. (Permit Version 2)
2. 06/11/2009 - Permit extended until 31<sup>st</sup> December 2009. (Permit Version 3)
3. 24/12/2009 – Permit extended until 28<sup>th</sup> February 2010. (Permit Version 4)
4. 26/02/2010 – Permit extended until 30 September 2010. (Permit Version 5)
5. 23/09/2010 - Permit extended until 30 September 2011. (Permit Version 6)
6. 17/01/2011- Permit amended to include the products Fumaphos Fumigation Blanket P52019; and Quickphos Fumigation Blanket P47322. (Permit version 7)
7. 29/09/2011 – Permit extended until 30 September 2012. (Permit Version 8)
8. 14/08/2012 – Permit extended until 30 September 2013. Active ingredient amended as Phosphine present as Aluminium Phosphide, as per current registered product labels. (Permit Version 9)
9. 30/08/2013 – Permit extended until 30 September 2014. (Permit Version 10)
10. 11/09/2014 – Permit extended until 30 September 2019. (Permit Version 11)
11. 14/08/2017. Victorian *Control of Use* S25A (permit) statement removed. Issued as version 12.
12. 28/11/2019 – Permit version 12 expired 30 September 2019. Permit extended until 30 November 2024, product names and concentrations updated to reflect current registered products. Permit issued as version 13.