

[1]Draft ISPM: International movement of vehicles, machinery and equipment (2006-004)

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[39]Adoption

[40][Insert text]

[41]INTRODUCTION

[42]Scope

[43]This standard identifies and categorizes the pest risk associated with vehicles, machinery and equipment (VME) being moved internationally. It describes phytosanitary measures that may be applied to VME utilized in agriculture, forestry, horticulture, earth moving, surface mining, industrial processes and waste management, and to military VME.

[44]This standard does not cover vehicles or other conveyances moving under their own motive power over international borders.

[45]References

[46]The present standard refers to International Standards for Phytosanitary Measures (ISPMs). ISPMs are available on the International Phytosanitary Portal (IPP) at <https://www.ippc.int/core-activities/standards-setting/ispm>.

[47]IPPC. 1997. International Plant Protection Convention. Rome, IPPC, FAO.

[48]Definitions

[49]Definitions of phytosanitary terms used in this standard can be found in ISPM 5 (*Glossary of phytosanitary terms*).

[50]Outline of Requirements

[51]This standard describes the main groups of phytosanitary measures and phytosanitary procedures that apply to VME: cleaning and treatments, prevention of contamination, facilities and waste disposal requirements, and verification procedures.

[52]The standard also provides guidance to national plant protection organizations (NPPOs) working with the military on phytosanitary measures applicable to the international deployment of military VME.

[53]BACKGROUND

[54]Used VME are regulated articles frequently traded or otherwise moved between countries. They may have been used in agriculture, forestry or horticulture, as well as for construction, industrial purposes, mining and waste management. They can also be military VME used in the international deployment. Depending on their use or storage before export, VME may have become contaminated with pests or regulated articles. When moved internationally as either a traded commodity or an operational relocation (e.g. in the case of harvesters) VME may carry soil, pests, plant debris and seeds, and they may therefore present a pest risk to the importing country. Depending on their use in the country of import, they may introduce quarantine pests to agricultural, forested, wilderness or other areas.

[55]New VME may also be contaminated by pests during storage before export. The likelihood of contamination may depend on the storage conditions, distance from pest habitats and storage time.

[56]Examples of pests that may contaminate VME are provided in Appendix 1.

[57]Specific guidance is needed for NPPOs regarding the pest risk associated with the movement and storage of VME and the phytosanitary measures that may be required in order to facilitate their safe movement.

[58]IMPACTS ON BIODIVERSITY AND THE ENVIRONMENT

[59]The decontamination of VME may provide a means to prevent the entry of organisms other than quarantine pests into new areas. These could include organisms relevant to biodiversity (invasive alien species), human health and animal health.

[60]REQUIREMENTS

[61]1. Pest Risk

[62]The main pest risk associated with used VME is contamination with soil, pests and plant debris, seeds and plant parts capable of propagation. Seeds and other plant parts capable of propagation may be of concern because the plant itself can be a pest. Pests that have a resistant or dormant life stage allowing them to survive transport to endangered areas are a specific concern. New VME may also become contaminated before being moved internationally (e.g. during storage).

[63]1.1 Elements of pest risk categorization

[64]The following elements of VME may affect the level of pest risk:

- [65]type: more complex VME have more areas that may be contaminated
- [66]origin and prior use: VME used on farms, in crop fields, in forests, in close proximity to vegetation or for carrying organic material are more likely to be contaminated
- [67]storage: VME stored outdoors and in close proximity to vegetation are more likely to be contaminated
- [68]intended location or use: pests may establish in endangered areas if they are transported on VME that will be used in agricultural areas, in forests or in close proximity to vegetation.

[69]Examples of VME, ranked in order of decreasing pest risk, together with examples of possible phytosanitary measures and verification procedures, are provided in Appendix 2.

[70]2. Phytosanitary Measures and Phytosanitary Procedures

[71]The main groups of phytosanitary measures and phytosanitary procedures that apply to VME are described below:

- [72]cleaning and treatments
- [73]prevention of contamination
- [74]facilities and waste disposal requirements
- [75]verification procedures.

[76]Where the risks associated with VME affect animal and human health and biodiversity, NPPOs should coordinate with relevant agencies as necessary.

[77]NPPOs are encouraged to work with military authorities to develop procedures consistent with the guidance on the international movement of military VME provided in Appendix 3.

[78]Based on evidence of interceptions of pests on new VME, the NPPO of the importing country may require phytosanitary measures or phytosanitary procedures for the prevention of contamination in the exporting country (see section 2.2).

[79]**2.1 Cleaning and treatments**

[80]Cleaning methods may include:

- [81]emptying water reservoirs
- [82]removing debris or filters
- [83]abrasive blasting
- [84]pressure washing
- [85]steam cleaning
- [86]sweeping and vacuuming
- [87]compressed air cleaning.

[88]Treatments that may be used in addition to cleaning:

- [89]chemical treatment (e.g. fumigation, disinfection)
- [90]temperature treatment.

[91]Partial or full dismantling of the VME may be necessary for effective cleaning or treatment.

[92]**2.2 Prevention of contamination**

[93]Where clean VME are moved to a storage area, packing area or port of loading or when they are transiting through another country, measures should be taken to avoid contamination. These include, as appropriate:

- [94]Storage at an appropriate distance from pest habitats (the distance will depend on the pest) and in areas with reduced risk from contamination by vegetation, soil, free-standing water or contaminated cargo.
- [95]Storage and handling on surfaces that prevent contact with soil.
- [96]Vegetation around storage areas, packing areas or ports of loading is kept short by mowing or using weed controls in order to reduce the risk of contamination by airborne seeds. Consideration should be given to the erection of barriers to limit seed movement around storage and loading areas.

[97]During seasonal pest emergence periods or occasional pest outbreaks, special consideration should be given to measures that prevent pests being attracted to storage and loading areas (e.g. restricting the use of artificial lights).

[98]**2.3 Facilities and waste disposal requirements**

[99]The type of equipment and nature of facilities necessary for cleaning and treatment of VME depend on where this takes place. Cleaning, treatment and inspection will generally take place in the exporting country to fulfil the phytosanitary import requirements of the importing country. Facilities in the exporting country may not need elaborate solid waste and wastewater management systems as the contamination may be of local origin.

[100]Facilities required for the inspection, cleaning and treatment of VME may include:

- [101]surfaces that prevent contact with soil, including soil traps and wastewater management systems, if appropriate
- [102]temperature treatment facilities

- [103]fumigation facilities.

[104]Disposal of soil and contaminated washing water should be in accordance with national or local regulations.

[105]Containment and disposal methods should be sufficient to prevent the spread of pests and may include: soil traps, bagging, deep burial, incineration, fumigation, composting and wastewater management systems.

[106]2.4 Verification procedures

[107]Requirements for documentation to attest that consignments have been inspected or cleaned (e.g. cleaning declaration, treatment certificate, phytosanitary certificate) should be determined by the NPPO of the importing country, and should be proportionate with the identified pest risk and appropriate for the phytosanitary measures required.

[108]An NPPO may conduct import inspections to verify that VME are clean. Import inspections may include partial or full dismantling of VME, and in some cases, collection of specimens for identification. Verification of cleanliness may also involve probing and flushing hidden areas (e.g. by using water under high pressure or compressed air).

[109]The NPPO of the exporting country may authorize entities for the cleaning and treatment of VME. If an authorization system is in place, the NPPO of the importing country may verify compliance through import inspections at a reduced frequency.

[110]The cleaning of military VME may be performed and verified by military personnel, when requested by the NPPO.

[111]3. Non-compliance and Phytosanitary Actions

[112]Where non-compliance occurs, the importing country may take phytosanitary action as outlined in ISPM 20 (*Guidelines for a phytosanitary import regulatory system*).

[113]Examples of phytosanitary actions that may be taken are detention, cleaning, treatment or reshipment of the VME found to be contaminated. Where contaminated VME need to be transported to another location for cleaning and treatment, NPPOs should ensure that contamination is suitably contained (e.g. by containerization).

[119]This appendix is for reference purposes only and is not a prescriptive part of the standard

[120]APPENDIX 1: Examples of pests that may contaminate vehicles, machinery and equipment

- [121]*Beet necrotic yellow vein virus*, transmitted through soil via spores of its vector *Polymyxa betae*
- [122]*Clavibacter michiganensis* subsp. *sepedonicus* (bacterial ring rot of potato), in plant residues
- [123]*Lymantria dispar* (gypsy moth), as diapausing egg masses
- [124]*Orgyia thyellina* (white spotted tussock moth), as diapausing pupae
- [125]*Halyomorpha halys* (brown marmorated stink bug), as overwintering adults
- [126]*Phytophthora ramorum* (sudden oak death), in soil
- [127]*Tilletia indica* (Karnal bunt), as spores in soil and on wheat seed residues
- [128]*Achatina fulica* (giant African snail), as aestivating adults
- [129]*Miconia calvescens*, as seeds in soil
- [130]*Chromolaena odorata* (Siam weed), as seeds or in soil
- [131]*Globodera* spp. (potato cyst nematodes), in soil and host plant residues
- [132]*Coptotermes formosanus* (Formosan termites), in wood and soil
- [133]*Sorghum halepense* (Johnson grass), as rhizomes and seeds
- [134]*Solenopsis invicta* (red imported fire ant), as eggs, larvae and adults, and nests
- [135]*Fusarium oxysporum* (*Fusarium* wilt), in soil and host plant residues
- [136]*Fusarium guttiforme* (fusariosis of pineapple), in soil and host plant residues.

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[138]APPENDIX 2: Examples of vehicles, machinery and equipment, ranked in order of decreasing pest risk, together with examples of possible phytosanitary measures and verification procedures

[139]Category	[140]Contamination notes	[141]Phytosanitary measures	[142]Verification procedures
<p>[143]Agricultural, forestry and horticultural used VME, such as:</p> <p>[144]- harvesters</p> <p>[145]- sawmill machinery</p> <p>[146]- logging trucks</p> <p>[147]- animal transport vehicles</p> <p>[148]- compost and manure trailers</p> <p>[149]- tractors</p> <p>[150]- tools.</p> <p>[151]Reconditioned or field-tested used VME are included.</p>	<p>[152]Contaminants:</p> <p>[153]- soil</p> <p>[154]- pests</p> <p>[155]- plant debris</p> <p>[156]- seeds.</p> <p>[157]This category is usually considered to be high pest risk.</p>	<p>[158]Abrasive blasting</p> <p>[159]Emptying open water reservoirs, removing debris</p> <p>[160]Pressure washing</p> <p>[161]Steam cleaning</p> <p>[162]Sweeping and vacuuming</p> <p>[163]Compressed air cleaning</p> <p>[164]Chemical treatment (e.g. fumigation, disinfection)</p> <p>[165]Temperature treatment</p>	<p>[166]Cleaning declaration</p> <p>[167]Treatment certificate</p> <p>[168]Inspection (may include dismantling and testing)</p> <p>[169]Phytosanitary certificate</p> <p>[170]Authorization and audit</p>
<p>[171]Earth moving used VME, such as:</p> <p>[172]- bulldozers</p> <p>[173]- graders</p> <p>[174]- surface mining equipment.</p> <p>[175]Reconditioned or field-tested used VME are included.</p>	<p>[176]Soil is the main contaminant; pests, plant debris and seeds can also be contaminants.</p> <p>[177]Pest risk is variable, but high levels of contamination may occur in this category.</p>	<p>[178]Abrasive blasting</p> <p>[179]Emptying open water reservoirs, removing debris</p> <p>[180]Pressure washing</p> <p>[181]Steam cleaning</p> <p>[182]Sweeping and vacuuming</p> <p>[183]Compressed air cleaning</p> <p>[184]Chemical treatment (e.g. fumigation, disinfection)</p>	<p>[185]Cleaning declaration</p> <p>[186]Treatment certificate</p> <p>[187]Inspection (may include dismantling and testing)</p> <p>[188]Phytosanitary certificate</p> <p>[189]Authorization and audit</p>
<p>[190]Military used VME, such as:</p> <p>[191]- trucks</p> <p>[192]- tanks</p> <p>[193]- personnel carriers</p> <p>[194]- rolling stock.</p>	<p>[195]Contaminants:</p> <p>[196]- soil</p> <p>[197]- pests</p> <p>[198]- plant debris</p> <p>[199]- seeds.</p> <p>[200]Pest risk is variable, but used military VME are often used off-road and stored outdoors, leading to a higher risk of contamination.</p>	<p>[201]Emptying open water reservoirs, removing debris</p> <p>[202]Pressure washing</p> <p>[203]Steam cleaning</p> <p>[204]Chemical treatment (e.g. fumigation, disinfection)</p>	<p>[205](see Appendix 3)</p>
<p>[206]Waste management</p>	<p>[211]Organic waste</p>	<p>[215]Abrasive blasting</p>	<p>[222]Cleaning declaration</p>

<p>used VME, such as: [207]- rubbish trucks [208]- waste sorting equipment. [209]Reconditioned used VME are included. [210]Bulldozers used in landfills are considered under earth moving VME.</p>	<p>debris is the main contaminant, including: [212]- soil [213]- pests [214]- plant debris.</p>	<p>[216]Emptying open water reservoirs, removing debris [217]Pressure washing [218]Steam cleaning [219]Sweeping and vacuuming [220]Chemical treatment (e.g. fumigation, disinfection) [221]</p>	<p>[223]Treatment certificate [224]Inspection (may include dismantling and testing) [225]Phytosanitary certificate [226]Authorization and audit</p>
<p>[227]Deep mining used VME</p>	<p>[228]The most likely contaminants are soil and pests. Pest risk is generally low unless used VME are contaminated with surface soil. It can be difficult to determine the prior use and whether or not used VME were used for surface mining.</p>	<p>[229]Abrasive blasting [230]Emptying open water reservoirs, removing debris [231]Pressure washing [232]Steam cleaning</p>	<p>[233]Cleaning declaration [234]Inspection (may include dismantling and testing) [235]Quality assurance system</p>
<p>[236]Industrial used VME used outdoors, such as: [237]- cranes [238]- forklifts.</p>	<p>[239]Pest risk is variable, but generally low unless used VME are used in close proximity to vegetation or are contaminated with soil.</p>	<p>[240]Abrasive blasting [241]Emptying open water reservoirs, removing debris [242]Pressure washing [243]Steam cleaning</p>	<p>[244]Cleaning declaration [245]Inspection</p>
<p>[246]Used vehicles, such as: [247]- cars, vans, trucks, buses [248]- off-road vehicles (e.g. motorbikes, quad bikes, four-wheel drives) [249]- locomotives and engines [250]- used parts [251]- trailers [252]- attached tyres.</p>	<p>[253]Contaminants: [254]- soil [255]- pests [256]- plant debris [257]- seeds. [258]Extremely variable pest risk, with some used vehicles at higher risk but many at low risk. This category has a large volume of used, traded vehicles.</p>	<p>[259]Abrasive blasting [260]Emptying open water reservoirs, removing debris [261]Pressure washing [262]Steam cleaning [263]Sweeping and vacuuming [264]Chemical treatment (e.g. fumigation, disinfection) [265]Temperature treatment</p>	<p>[266]Cleaning declaration [267]Treatment certificate [268]Inspection (may include dismantling and testing)</p>
<p>[269]Unmounted (rimless) tyres (not attached to vehicles)</p>	<p>[270]The main risk is to human health (mosquitoes carrying human diseases can live in water pooled inside tyres) but rimless tyres can also</p>	<p>[271]Pressure washing [272]Steam cleaning [273]Chemical treatment (e.g. fumigation, disinfection)</p>	<p>[274]Cleaning declaration [275]Treatment certificate [276]Inspection [277]</p>

	<p>carry pests, depending on storage conditions. Risk management is different from other used VME in this standard.</p>		
<p>[278]New VME</p>	<p>[279]Contaminants: [280]- soil [281]- pests [282]- plant debris [283]- seeds. [284]Pest risk is variable, but generally low, depending on storage conditions.</p>	<p>[285]Emptying open water reservoirs, removing debris [286]Pressure washing [287]Steam cleaning [288]Sweeping and vacuuming</p>	<p>[289]Inspection</p>

[290]**Legend:** VME, vehicles, machinery and equipment

[291]This appendix is for reference purposes only and is not a prescriptive part of the standard

[292]**APPENDIX 3: Guidance for the international movement of military vehicles, machinery and equipment**

[293]**1. Background**

[294]The international movement of military vehicles, machinery and equipment (VME) may present a risk for the introduction of soil, pests, plant debris and seeds to the countries of both deployment and redeployment. Examples of pests that may contaminate military VME are provided in Appendix 1 of this standard. Military operations occur continually around the world and encompass many different conveyances and cargo storage conditions.

[295]The international movement of military VME may present a practical problem to national plant protection organizations (NPPOs), whose main responsibilities are described in the International Plant Protection Convention (IPPC). In many countries, NPPOs have no or limited access to the military because of security issues. For this reason, the approach taken in managing the pest risk related to commercial and private shippers of VME cannot be applied to the military. Because of the sensitive nature of military missions and equipment, it is imperative to have strategies in place that will facilitate mission fulfilment while minimizing the pest risk. Consequently, military authorities are encouraged to commit to use this guidance, thus implementing IPPC requirements internally.

[296]**2. Objective**

[297]The objective of this guidance is that military VME are free from soil, pests, plant debris and seeds before they are moved internationally (e.g. for training, missions and deployment).

[298]**3. Guidance**

[299]Military authorities should ensure that VME are cleaned according to the requirements developed by the NPPO in their home country. Cleaning methods may consist of, for example

- [300]emptying water reservoirs
- [301]removing debris or filters
- [302]abrasive blasting
- [303]pressure washing
- [304]steam cleaning
- [305]sweeping and vacuuming
- [306]compressed air cleaning.

[307]These cleaning methods may need to be carried out in combination with partial or full dismantling of the VME to ensure they are cleaned to a high standard.

[308]Additional treatments may be required, such as:

- [309]chemical treatment (e.g. fumigation, disinfection)
- [310]temperature treatment.

[311]Wood packaging material associated with military VME should be compliant with ISPM 15 (*Regulation of wood packaging material in international trade*).

[312]Military authorities are encouraged to liaise with the NPPOs in their home country. Military authorities are also encouraged to liaise with the NPPO in the country of deployment, where practical. Contact information for NPPOs is available on the International Phytosanitary Portal (IPP) (<https://www.ippc.int>).

[313]Military authorities are encouraged to implement verification procedures to ensure the appropriate cleaning or treatment for VME has been carried out before deployment.

[314]Potential implementation issues

[315]This section is not part of the standard. The Standards Committee in May 2016 requested the secretariat to gather information on any potential implementation issues related to this draft, please provide details and proposals on how to address these potential implementation issues.