Import Risk Analysis: Vehicle and Machinery

Review of Submissions

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Biosecurity New Zealand
Ministry of Agriculture and Forestry
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Import risk analysis: Vehicle and Machinery

Review of Submissions

29 June 2007

Approved for general release

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1 Summary

The MAF import risk analysis on vehicles and machinery was released for public consultation on 14 February 2007. The period for receipt of submissions was extended at the request of stakeholders and closed on 30 April 2007. MAF received 24 submissions from a wide range of interests.

The purpose of the risk analysis was to evaluate the biosecurity risks posed by the importation of vehicles and machinery into New Zealand. The current risk management regime for used vehicles may be appropriate for visible biosecurity risks, but organisms that are invisible, mobile or hidden are clearly not being picked up.

The risk management objective stated in the risk analysis is to reduce the likelihood of entry and establishment of high consequence hazards to a negligible level, which means that the entry of most live, hidden and mobile hazards should be as close to zero as possible, whilst for some other groups with a lower likelihood of establishment a greater degree of tolerance will be acceptable.

The submissions received do not disagree with the identification of hazards, the estimates of the risk they pose, and most agree with the need for additional measures to manage these risks. However, some submitters are of the opinion that there is insufficient data to justify the recommended measures. It is acknowledged in the risk analysis that there are limitations in the data available, but the risk analysis is transparent about the uncertainties and assumptions made. With the exception of termites, no submissions have shown that these assumptions are invalid. As a result of a submission questioning one of the assumptions for termites, MAF has re-considered the risk management measures recommended for this group of hazards. The review has concluded that the recommendations of the risk analysis are not affected, but the wider context will need to be reflected in any future review of the risk analysis.

Many submitters support initiatives to provide more security against the incursion of biosecurity hazards into New Zealand. In relation to imported used vehicles, the package of measures recommended in the risk analysis (section 35.1) is endorsed by some submitters and strongly opposed by others. Most of those who oppose this package support the alternative package of measures outlined in section 35.2 of the risk analysis, which is expected to reduce the level of biosecurity risk associated with the pathway to a smaller extent. No submitters disagree outright with the stated risk management objective, although some appear to consider it to be excessively cautious.

Regarding imported new vehicles, no submitters question the need for risk management measures, but several submitters consider the recommended measures to be inadequate. No alternatives are proposed in those submissions.

No submitters disagree with the recommendations for enhanced risk management measures for imported trucks and machinery, although some questions were raised regarding implementation.

Three submitters suggested alternative risk management measures for imported used vehicles. These had all been identified in the risk analysis but insufficient evidence was available on the efficacy with which they would meet the risk management objective. No further evidence to

support these suggestions has been provided, but equivalence criteria will be released with the finalised import health standards so that any equivalent systems put forward can be considered.

Several submitters raised important and helpful issues that are outside the scope of the risk analysis. These are identified but not addressed in this document. They will be taken into account in the next stages of the review of the import health standards.

Some submitters pointed out minor errors of fact, mainly regarding organism taxonomy and status. These did not affect the recommendations of the risk analysis but they will be addressed in any future use of the material contained within the risk analysis.

2 Introduction

The MAF import risk analysis on vehicles and machinery was released for public consultation on 14 February 2007. The period for receipt of submissions was extended at the request of stakeholders and closed on 30 April 2007.

The "Notes for submitters" included on pages iii-iv of the risk analysis requested comment based on the following questions:

1. What are your views on the risk assessment for each hazard group? Are the risk assessments accurate? What changes, if any, are required? Please provide evidence to support your submission.
2. Has the efficacy of risk management measures for each hazard group been evaluated accurately?
3. Are there alternative packages of measures that will achieve the risk management objective? Please provide details.

The "Notes for submitters" explained that:

- the risk analysis will contribute to the development of revised Import Health Standards, issued by the Ministry of Agriculture and Forestry (MAF) under the Biosecurity Act 1993, that specify the requirements to be met before vehicles and machinery may be imported and given biosecurity clearance;
- issues relating to the practical implementation of risk management measures are beyond the scope of this risk analysis;
- public workshops will be held to discuss practical and logistical issues in more detail as part of the review of the Import Health Standards;
- MAF has commissioned the New Zealand Institute of Economic Research (NZIER) to undertake cost-benefit analysis of the range of risk management measures presented in this document.
- the revised Import Health Standards will take account of submissions on the technical content of this risk analysis, the feedback from stakeholders on practical implementation factors, consultation with other government departments, the cost-benefit analysis, and policy considerations for managing biosecurity risks offshore.

MAF received 24 submissions from a wide range of interests as indicated in table 1.

Table 1. Submissions received by MAF on the Import Risk Analysis: Vehicle and Machinery

Category	Submitter
Industry associations	Independent Motor Vehicle Dealers Association
	Motor Industry Association
	Motor Trade Association
	New Zealand Forest Owners Association
	Road Transport Forum NZ
	Vehicle Compliance Association

Exporting companies	Auto-terminal International
Inspection providers	JEVIC
Treatment Providers	Biosecurity Solutions Ltd. Frontline Biosecurity Ltd. Japan Fumigation Technology Association
Port Companies	Port Companies of New Zealand (joint submission) Port of Tauranga Ltd.
Shipping Companies	Kiwi Car Carriers Navix Line (NZ) Ltd
Research institutes	Ensis Forest Biosecurity and Protection Unit Landcare Research
Consultant	Sempre Avanti Consulting
Government Departments	Ministry of Environment Ministry of Health
Parliamentary	Greens Advisory Unit
Individuals	Anonymous Mark Forward
Freight and customs brokers	Advance International

This document summarises and reviews each submission in turn. The full submissions are included as Appendix 1.

Several submitters raised issues that are outside the scope of the risk analysis. These are identified and noted but not addressed in this document. They will be taken into account in the next stages of the review of the import health standards.

3 Key statements

Similar issues raised by submitters are summarised and discussed here by *Key Statements*. To avoid repetition, MAF's response will not be repeated in responding to individual submissions.

A. There is no problem with the current risk management regime because no incursion of an exotic pest in New Zealand has been proven to have arisen from the pathway.

***MAF response**:* The results of the slippage surveys, the biological risk assessments and post-border interceptions on imported vehicles clearly show that this is an important pathway for the entry of high consequence hazards.

Because of their complicated structure, their unknown use history, the fact that they remain permanently in New Zealand and rapidly disperse away from ports and formal surveillance networks, imported used vehicles and machinery are considered to be a higher risk than other inanimate pathways. There have been a large number of recent incursions of serious organisms such as Asian gypsy moth and while spotted tussock moth which have a known association with imported vehicles and machinery, and it is considered likely that vehicles may well have been the pathway for at least some of these incursions.

Nonetheless, the risk analysis acknowledges that few incursions of exotic organisms can be definitively linked with a particular import pathway. This is because virtually all organisms could enter New Zealand via a number of pathways. The varroa mite, for example, which is closely associated with honey bees could have entered on several pathways: smuggled bees, a swarm on a container, or on a vessel, or on a vehicle. Once an organism, particularly a hitchhiker organism, has established in New Zealand, the association with the entry pathway is nearly always broken, meaning that it is not possible to definitively link incursions with pathways (see risk analysis pages 16, 36, 37, 105, 359). If absolute proof of the responsible pathway for an incursion were to be a pre-requisite for risk management measures, there would be very few risk management measures on any pathway. In the absence of proof of linkage between an incursion and a particular organism, the likelihood of entry and establishment of that organism is assessed as part of the biosecurity risk assessment. It is because the link cannot currently be proven that the risk analysis does not state that the used vehicle pathway is responsible for the recent incursions of fall webworm, despite it being the only pathway on which this species has been intercepted at the border.

B. If low frequency pests really are a risk, there would already be a significant number of (high consequence) pests established in New Zealand

***MAF response**:* There have been recent incursions of high consequence organisms which have an association with vehicles, although these can not be definitively linked with any one pathway (see key statement A). These incursions prompted costly responses, with associated social and economic consequences.

The time lag that often occurs between an organism becoming established in a new location and its population rising to detectable levels, and the dispersion of imported vehicles beyond established formal surveillance networks for detecting exotic species incursions, means that we may not know which hazards have already become established (see page 16 of the risk analysis).

From a risk management perspective, there are two key points about hazards that occur at low frequencies. Firstly, although the likelihood of a vehicle being infested with a specific high consequence hazard may be low, the likelihood of it being infested with at least one of the 15 high consequence hazards that were assessed in detail in this risk analysis, or any other hazard that was not assessed, is much higher. Secondly, on large volume pathways such as this, even low frequency events are likely to occur sufficiently often for a high consequence hazard associated with the pathway to become established eventually.

Note that the detection of low frequency contaminants in a survey is restricted by sample size. The risk analysis explains that at the sampling rates used in the 2005 slippage survey there is a 95 percent chance of detecting visible contamination affecting 1 in 182 imported used vehicles. Many of the high consequence organisms assessed in the risk analysis are likely to occur much less frequently than this (page 33 of the risk analysis).

C. There isn't a problem because there are few interception records for high consequence pests on vehicles

MAF Response: There have been numerous interception records for high consequence organisms on imported vehicles which demonstrate the clear association between a species and the pathway. Nonetheless it is important to recognise that significant limitations in the interception records available mean they do not indicate true contamination rates (Pages 9 and 10 of the risk analysis). Some of the limitations include:

- not all interceptions are documented or identified;
- identification to species (or even genus or family) level may not be possible, for example due to specimens that are damaged or a lack of information on how to identify certain taxa;
- interception records are generally limited to groups of organisms that are readily detected by the naked eye.

D. Insufficient data to support the recommended risk management measures

MAF response*:* The results of the slippage surveys, the biological risk assessments and post-border interceptions on imported vehicles show that this is an important pathway for the entry of high consequence organisms. Nonetheless the risk analysis recognises the need to review the recommendations for machinery once the videoscope survey results are available.

There will always be limitations to the information available to inform decisions. In cases where there is uncertainty, recommendations usually focus on what reasonable steps can be taken at the time, while maintaining future options where appropriate and being transparent about the uncertainties and assumptions. Peer review is used to check that these assumptions and the rationale for the conclusions are reasonable and the logic is transparent. Where the impacts of not intervening are likely to be irreversible, there is a stronger case for intervention even when benefits only marginally outweigh costs.

The risk analysis provides a reasoned and logical discussion supported by references to the available scientific literature. It identifies and acknowledges the limitations of the information available and areas of uncertainty are highlighted (see for instance, page 8 and page 357). The difficulties around undertaking a risk analysis for hitch hiker organisms, (which do not have a biological association with vehicles) are discussed. Nonetheless a considerable body of evidence was assessed in detail. Interception records from imported vehicles of organisms in

more than 185 different biological families have been reviewed (including post-border interceptions), several surveys have been carried out, and approximately 700 documents have been analysed. The risk analysis considers all these sources of information to reach a conclusion on the likelihood of entry and establishment of particular hazard groups. The assessment of biological information is an important part of the process and should not be dismissed merely because it is not quantitative.

E. What is an appropriate risk management objective?

Some submitters consider the risk management objective identified in the risk analysis to be unduly cautious. There is some misunderstanding over how the risk management objective relates to the current inspection efficacy target of 97 percent.

MAF response: The outcome based risk management objective determined for the risk analysis was to reduce the likelihood of entry and establishment of high consequence hazards via the imported vehicle and machinery pathway to a negligible level. In practice this will mean that for hidden and mobile live organisms of any life stage the likelihood of entry should be as close to zero as possible. For some other hazard groups such as plant seeds the likelihood of establishment is lower and therefore a higher tolerance threshold is acceptable. This approach is intended to reduce the likelihood of entry via the pathway to a level where there are unlikely to be incursions (and therefore no need for responses) of high consequence hazards.

The 97 percent target was not derived from risk analysis and although it is widely quoted, it is not a formal risk management objective. It was simply a tool to enable the operation of the inspection regime to be monitored. It does not distinguish between the level of risk posed by different contaminants. In practice, specifying acceptable slippage in terms of a percentage of contaminated vehicles would result in the acceptable level of slippage varying with the volume of imported commodity and the detectability of the hazards. For these reasons a percentage based risk management objective was not set in the risk analysis.

The risk analysis considered information from post-border interception records, slippage surveys and the biology of high consequence hazards. It was concluded that the current risk management regime does not provide effective management of the risks. The recommended package of risk management measures for imported used vehicles is likely to meet the risk management objective. Although the alternative package of measures outlined in section 35.2 of the risk analysis will increase the level of biosecurity protection over that currently provided, it is considered unlikely to meet the risk management objective.

F. Alternative risk management measures

MAF response: Three submitters suggested alternative risk management measures to those recommended in the risk analysis. The suggested measures were considered in the risk analysis but insufficient evidence was available to measure how effectively they would meet the risk management objective. Any new data that would enable their efficacy to be judged against the risk management objective would be welcomed.

MAF will consider alternative methods of dealing with the biosecurity risks associated with vehicles and machinery if the methods can be shown to achieve the same outcome as those in the import health standards. A guide providing relevant information on "equivalence criteria" will be made available when the import health standards are finalised.

G. Perceived conflict of interest relating to Dr. Hosking's role as one of 12 external reviewers.

MAF response: To ensure that the risk analysis was technically robust, MAF commissioned external peer review of the draft analysis (pages i and ii). Twelve reviewers (national and international) reviewed all or part of the analysis. Ensis (Peter Gadgill and Margaret Dick) were asked to review Chapters 20 and 35 (and chapters 1-4 for context) because of their expertise in forestry biosecurity. In the event, Dr. Gadgill was unable to undertake the review due to illness and Ensis suggested that Gordon Hosking and Lindsay Bulman had the appropriate expertise to contribute to the review in his place.
The terms of reference for the external review were:

1. Is the logic of the process clear to you from your reading of the analysis? That is, can you readily follow the steps from the hazard identification, through the risk assessment to formulation of appropriate measures?

2. Does the document make clear what are facts and what are assumptions?

3. Has the literature been cited accurately? Have any important publications been overlooked?

4. Are the references cited appropriate? Are you aware of any data or information that have been overlooked but which may aid the analysis?

5. Are there significant omissions from the analysis?

The issue raised is one of objectivity. MAF acknowledges that Dr. Hosking has an interest in heat treatment of imported vehicles.

The changes made to the risk analysis as a result of Dr. Hosking's review comments are included in this document as Appendix 2. Dr. Hosking's review was considered to be objective, and his comments were helpful. They resulted in only a few minor changes to the risk analysis and did not affect any of the conclusions reached or recommendations made. Expertise within MAF, coupled with the external reviews gives a high level of confidence in the objectivity of the risk analysis.

H. Why are new vehicles being treated differently?

Some submitters support the recommended package of measures for new vehicles (section 35.5 of the risk analysis), while others suggest it would provide inadequate protection and will translate into no real change.

MAF Response: Different measures are recommended for new vehicles because the biosecurity risks associated with them are assessed to be lower than for used vehicles. The risk associated with an imported new vehicle is likely to depend on the conditions of storage and the duration of storage prior to shipment to New Zealand. For new vehicles that are transferred directly from the factory to the wharf and stored in sealed conditions for a few days prior to shipping, the risk will be lower than for vehicles that are stored for several months under a variety of conditions. The former is likely to require management similar to that needed to minimise recontamination of used vehicles that are decontaminated/treated offshore. For the latter scenario, decontamination and treatment is likely to be necessary. The key difference between the new and used vehicle pathways is that for new vehicles this history is usually readily available and the risk management measures necessary to meet the stated risk management objective can therefore be more closely tailored to the individual pathway.

The risk analysis assessed the likelihood of entry of potential hazards separately for the new and used vehicle pathways. This assessment takes account of the biology of the organisms concerned and the likelihood of association with each pathway (pages 65, 120, 142, 157, 198, 230, 258, 291, 313 and 333). Fewer groups of organisms were identified as hazards on the new vehicle pathway (see summary on page 352) than on the used vehicle pathway.

I. Offshore risk management should be mandatory

MAF Response: While the risk analysis recommended that offshore risk management is preferred for the majority of hazard groups (page 349), the location of risk management activities will be considered further in the review of the import health standards.

J. Issues relating to the practicality or logistics of implementing the recommended measures.

MAF response*:* Several submissions raise important and helpful points relating to practicality, cost or logistics of implementing risk management measures identified in the risk analysis. These issues are outside the scope of the risk analysis and are noted for consideration in the next stages of the review of the import health standards.

K. Opposition to increased use of methyl bromide for fumigation

MAF response*:* The scope of the risk analysis is limited to assessing the biosecurity risks posed by imported vehicles and machinery and to identifying risk management measures to address those risks. Whilst the disadvantages of methyl bromide as a treatment have been recognised (pages 46, 47, 347) the wider policy considerations relating to its increased use will be taken into account in the next stages of the review of the import health standards.

L. Cost – benefit information on the recommended risk management measures should have been included in the risk analysis

MAF response*:* The risk analysis makes no cost - benefit assumptions. MAF has commissioned an independent cost - benefit analysis of the range of risk management measures

recommended in the risk analysis. This is available on MAF's website at (http://www.biosecurity.govt.nz/commercial-imports/other-imports/introduction). The results of the cost - benefit analysis will be used to inform the next stages of the review of the import health standards.

4 Review of Submissions

4.1 INDUSTRY ASSOCIATIONS

4.1.1 Independent Motor Vehicle Dealers Association (IMVDA), David Vinsen, Chief Executive

4.1.1.1 The IMVDA is the trade association representing the majority of the import trade in used vehicles.

4.1.1.2 The IMVDA states that it supports the aims of reducing the biosecurity risk to New Zealand and that whilst it is not qualified to make meaningful comment on the technical details or methodology of the risk analysis, it is well placed to comment on the likely effects on the trade, of the recommendations for treatment.

4.1.1.3 The IMVDA has a strong preference for the risk management package specified in section 35.2 of the risk analysis. The rationale given by IMVDA for this is:

- **'We understand that the present pathway is recognised internationally as being best practice, and delivers an appropriate level of protection;**
- **The systems and procedures are robust and thorough, and the "slippage rate" is less than 1 percent, (section 4.2.1 of the risk analysis document);**
- **We are unaware of any incursions that have been definitively attributed to the used vehicle vector.**
- **We contend that the current system obviously "ain't broke" and doesn't need replacing.'**

***MAF response*:** Please refer to key statement E in section 3 of this document. The current system is indeed recognised internationally. However, in the absence of a biosecurity risk analysis we have not known whether the system provides an appropriate level of biosecurity protection. The risk analysis concludes that it does not.

The statement that the slippage rate is less than 1 percent appears to be a misunderstanding of the results of internal audits undertaken by MAF, which are described in section 4.2.1 of the risk analysis. The purpose of these audits is to determine whether inspections meet the specifications of MAF Quarantine Service process procedures. The results of surveys designed to measure 'slippage' under the current system are summarised in section 4.2.2. Overall, these indicate that current operations were 73 percent effective in removing visible biosecurity contaminants from used vehicles and that the current import health standards are adequate for 31 percent of imported used vehicles. The remaining 69 percent have contaminated air filters or contamination in parts of the vehicle that can not be seen by visual inspection.

In relation to bullet point 3, please see key statement A on the relationship between pathways and incursions.

4.1.1.4 The IMVDA opposes the risk management measures recommended in section 35.1 (mandatory cleaning and treatment of every used vehicle), because:

- **'There is no proven need for mandatory treatment of all vehicles;**
- **It would be logistically impractical to chemically or heat treat every vehicle due to physical and environmental constraints at the load and discharge ports;**
- **The delays and additional costs incurred would not be justified by an increased level of biosecurity efficacy;**
- **Methyl bromide is a pervasive chemical; the odour associated with chloropicrin, often used as a marking agent for methyl bromide, is in many cases impossible to eliminate or mask, rendering vehicles unsaleable;**
- **Methyl bromide residue may have negative health impacts on the owners and occupants of vehicles;**
- **The continued use of methyl bromide would be in contravention of New Zealand's obligations under the Montreal Protocol;**
- **Heat treatment of every vehicle would be energy-inefficient, would add to the greenhouse gas effect, and would increase the carbon footprint associated with the importation of vehicles**.'

MAF response: Submission noted. Please refer to key statements A, D, J, K and L.

4.1.1.5 The IMVDA recognises that the system could be improved and recommends:

- **'As a matter of policy risk should be managed offshore whenever practicable;**
- **encourage 100 percent off-shore pre-cleaning and MAF clearance of vehicles shipped on pure car carriers (RORO vessels);**
- **use of heat treatment as a last resort for vehicles that require additional treatment after an initial inspection;**
- **phase out the use of methyl bromide as quickly as possible;**
- **use the general process for containers (ie Accredited Persons at Approved Transitional Facilities: "ATF"s) for vehicles imported in containers and multifunction LOLO vessels;**
- **develop a specific category of ATF for Service Centres. The requirements could include inspection/replacement of air filters, inspection of previously inaccessible parts etc.'**

***MAF response*:** Submission noted. Please refer to key statements E, I, J and K.

4.1.1.6 The IMVDA expresses surprise and concern about the apparent lack of a '"whole of government" approach to proposed regulatory interventions associated with the used vehicle imports trade. Both MAF and the Ministry of Transport (new emissions standards) are currently proposing significant new interventions that will have individual and cumulative effects by adding new compliance costs and delays, and in the case of MoT, severely restricting used vehicle imports.' The industry urges stronger inter-agency co-operation to ensure that all new interventions cause minimal restrictions and are implemented in a phased manner.

***MAF response*:** Submission noted.

4.1.1.7 In summary, while the IMVDA agrees in principle with the need for a strong biosecurity regime, it disagrees with the primary recommendation of the Risk Analysis and recommends the risk management package specified in 35.2.

***MAF response*:** Submission noted.

4.1.2 Motor Industry Association (MIA), Perry Kerr, Chief Executive Officer

4.1.2.1 The MIA represents the importers and distributors of New Zealand new vehicles. Members are the official representatives of a vehicle marque. Members import new passenger cars, light and heavy commercial vehicles which are then sold through a franchise dealer network. A limited number of members also import used vehicles from Japan and Singapore, for refurbishment and sale.

4.1.2.2 MIA members 'in the main have no particular issue with the proposals for New Zealand new vehicles.' They 'accept that for the future there will be an increased number of inspections of new vehicles while Biosecurity New Zealand satisfies itself that new vehicles do not represent a risk.'

4.1.2.3 The MIA advises that following the release of the risk analysis, the IMVDA contacted the MIA seeking member comment on whether or not heat treatment of vehicles to a core temperature of 60°C for ten minutes would affect the vehicle and/or its components. The MIA's members advised that such treatment was not of concern, as long as the heating was not by 'irradiated laser beam'. In their view none of the electronic or other components, such as seat upholstery in a vehicle would be affected by such treatment.

4.1.2.4 Nonetheless, the MIA's members noted that 'fumigation with methyl bromide did adversely affect vehicles, especially upholstery, by leaving a distinctive smell which they say is almost impossible to rid the vehicle of – meaning that it becomes almost virtually unsaleable.' They would not recommend this as an option for the majority of vehicles.

4.1.2.5 The MIA advises that they believe the recommended procedures for imported used vehicles can be implemented with limited impact on the vehicle fleet. These comments however do not relate to issues of logistics, timing or cost.

***MAF response*:** Submission noted.

4.1.3 Motor Trade Association (MTA), Mark Frampton, Vehicle technical and compliance manager

4.1.3.1 'The MTA represents approximately 4500 members of the New Zealand motor industry, including importers of both used and new vehicles and machinery. Members also include businesses involved with entry certification, collision repair certification and general vehicle repair.

4.1.3.2 MTA are conscious of the potential consequences associated with biosecurity outbreaks that could lead to the collapse of several infrastructures including but not limited to agriculture, forestry and tourism. The flow on would no doubt have significant consequences for our industry and we deem to be a matter serious matter.

4.1.3.3 Overall MTA are supportive of sensible measures that will manage high consequence hazards while remaining cost effective and non-damaging for our members importing vehicles from Japan.

4.1.3.4 It is difficult for the MTA to comprehensively comment on the recommended risk management strategies … due to lack of expertise on biosecurity risk management and hazards.' In particular the MTA notes that it is not suitably qualified to comment on the risk assessments for each hazard group or on the efficacy of risk management measures.

4.1.3.5 The MTA raises 'concerns about the use of methyl bromide having side effects less desirable than the biohazard they are intended to control.' They quote The United States Environmental Protection Agency's advise "Methyl bromide is highly toxic. Studies in humans indicate that the lung may be severely injured by acute (short-term) inhalation of methyl bromide. Acute and chronic (long term) inhalation of methyl bromide can lead to neurological effects in humans".

4.1.3.6 'In a perfect world methyl bromide fumigation is carried out in controlled environments and ideally all gas used is recaptured however; motor vehicles are constructed from a variety of composite materials and have a multitude of compartments to absorb and retain residue fumes. The question we pose is can MAF ensure that secondary gas release will not occur after the required 2-4 day fumigation rest period. This is of particular concern when feedback from our members indicates vehicles fumigated with methyl bromide are rendered un-saleable for a considerable time due to pungent residual fumes.'

4.1.3.7 'MTA find it highly questionable that MAF recommends measures that have substantial health and safety implications without due consideration to the well being of all stakeholders including future vehicle occupants.' They recommend that a health and safety analysis on the use of methyl bromide to fumigate motor vehicles be conducted prior to consideration of its continued use.

4.1.3.8 The MTA points out that whilst the risk analysis advises that New Zealand is committed to reducing the use of methyl bromide as a signatory of the Montreal Protocol, 'the document does not mention that methyl bromide is considered 60 times more destructive to ozone than chlorine, even in small amounts and its use has been granted a critical exemption with very strong recommendation to cease its use.'

4.1.3.9 The MTA is surprised, given messages from government about developing strategies to reduce carbon emissions and support environment sustainability that a government agency recommends the use of an ozone depleting substance. The MTA 'acknowledges that bio-security is of vital importance to the well being of New Zealand agricultural, forestry and other environs and the use of methyl bromide as a fumigant to protect these areas may be hard to replace, particularly in other pathways, but MTA are reluctant to support the continuance of its use on motor vehicles.'

4.1.3.10 Given these concerns, the MTA supports the alternative package of measures for imported used vehicles (excluding machinery) recommended in the import risk analysis.

***MAF response*:** Submission noted. Please refer to key statements in section 3 of this document (K on methyl bromide and E in relation to the risk management objective).

4.1.3.11 MTA are particularly supportive of the idea that Land Transport NZ registered compliance centres become part of the formal biosecurity management process as transitional facilities. This is a pragmatic addition to the bio-security regime considering the degree of invasive inspection required by Land Transport NZ during the entry compliance inspection.

MAF response: Submission noted.

4.1.3.12 The MTA questions whether (under the measures recommended in section 35.2) if a high percentage of risk is invisible to the naked eye will a typical visual inspection indiscriminately allocate vehicles for fumigation or heat treatment? 'Notwithstanding the above question, the MTA are supportive of heat treatment if it reduces the removal of vehicle trim, doesn't deteriorate, or distort vehicle components and is more cost effective than the current designated strip and cleaning activity. A reduction in vehicle trim removal is especially desirable for MTA members who regularly voice concern regarding the number of vehicles delivered after MAF invasive inspection with damaged trim and missing components. This is particularly prevalent in luxury vehicles where the trim is difficult to remove without a high level of experience and the correct equipment.' The MTA asks to be actively involved in any further consideration of this issue.

***MAF response*:** Submission noted. Please refer to key statement J. The measures suggested in section 35.2 involve heat treatment or fumigation, only if hazards are found.

4.1.3.13 'The MTA are not aware of further alternative measures that will achieve the risk management objective.'

4.1.3.14 The MTA is interested in the New Zealand Institute of Economic Research (NZIER) cost-benefit analysis, particularly in the climate where used import vehicle numbers have dropped by approximately 15 percent over the past 18 months and numbers are likely to drop significantly more as government prepare to require used vehicles meet emission standards.

***MAF response*:** Submission noted. Please refer to key statement L.

4.1.4 NEW ZEALAND FOREST OWNERS ASSOCIATION (NZFOA), DAVID RHODES, CHIEF EXECUTIVE

4.1.4.1 The NZFOA is an NGO that represents the majority of forest owners in New Zealand. Its members' forests comprise more than 80 per cent of the country's 1.8 million hectares of plantation forestry.

4.1.4.2 NZFOA state that the forest industry has always been very concerned over the biosecurity risk associated with the import of used vehicles and welcomes this risk analysis and congratulates MAF on it.

4.1.4.3 NZFOA notes that as an industry body they are unqualified to comment on the risk assessments for each hazard group and have asked others such as HortResearch and Ensis to comment directly on those areas. Nonetheless the Association agrees with the assessments that Coleoptera and Lepidoptera are potential hazards on the pathway.

4.1.4.4 NZFOA supports the recommendations for heat treatment and greater research in relation to Lepidoptera and recommend that treatment should be done in New Zealand to provide confidence that it is done to a high standard. They suggest that fines should be strictly imposed for failure to meet vehicle cleaning requirements.

4.1.4.5 NZFOA is very concerned about the accidental import of weed seeds that may cause future problems for primary industry. Given the uncertainty (p 285 of the risk analysis) around this pathway they recommend that more research be conducted.

4.1.4.6 They also agree that more research should go into finding a Methyl Bromide alternative.

***MAF response*:** Submission noted, please refer to key statement J in section 3 of this document.

4.1.4.7 NZFOA notes that the focus of the risk analysis is on treatment measures and suggests that MAF consider evaluating the usefulness of new detection technologies, such as SYFT technology, for detecting biosecurity threats.

***MAF response*:** Electronic detection of biosecurity hazards was considered as a possible risk management measure for the vehicle pathway (see page 40 of the risk analysis). While the technology is not currently sufficiently advanced, MAF will keep a watching brief on its development.

4.1.5 Road Transport Forum NZ, Mark Ngatuere, Policy Analyst

4.1.5.1 The Road Transport Forum New Zealand is a nationwide organisation of voluntary members drawn from the road transport industry and includes owner-drivers, fleet operators and providers of services to freight transport operators. The Forum provides services to and public policy advocacy, for its members. The Forum's Associations have in excess of 4,000 members and associate members who operate approximately 17,000 trucks over 3,500 kg, or 80 percent of the hire and reward truck fleet in New Zealand. New Zealand's road transport industry employs 22,600 people (3 percent of the workforce), has a gross annual turnover of $5 billion and carts over 80 percent of New Zealand's land based freight.

4.1.5.2 The Forum's technical expertise does not extend to the containment of pest organisms covered by the risk analysis, however as the commercial road transport industry's primary representative they believe they are able to provide comments on aspects of the risk analysis' contents that are likely to negatively affect their

members and other parties involved with the importation of vehicles and machinery.

4.1.5.3 The Forum is fully supportive of the Government's attempts to ensure that New Zealand remains free of the hazards presented by the inadvertent importation of unwanted pest organisms "piggybacking" into New Zealand through vehicle importation. Nonetheless, its' main concern is the lack of research regarding the magnitude of the biosecurity risk presented by the importation of vehicles and the costs associated with increased inspection and eradication procedures, which could be perceived as seeking the answer to a problem that might not exist. It is concerned that excessive procedures might be put into place to avoid the risks associated with not being able to identify and eradicate pest organisms. This situation would result in a number of additional costs which are likely to be passed on to consumers.

4.1.5.4 The Forum believes that further research should be conducted to determine the true magnitude of the risk that pest organisms associated with imported vehicles present to New Zealand to ensure additional procedures and therefore cost increases are kept to a minimum. The Forum also believes that insufficient information has been provided within the Risk Analysis document in regard to probable cost increases arising from the recommended measures.

4.1.5.5 The lack of relevant costing information may be to the detriment of prospective or existing vehicle importers, as it does not enable importers to accurately evaluate the financial impacts of increased inspection/ eradication procedures, which therefore might not enable the importers to budget or fully plan for increased importation costs.

***MAF response*:** Submission noted. Please refer to key statements D and L in section 3 of this document.

4.1.5.6 The Forum notes that the risk analysis suggests that imported machinery may be required to have air cleaners replaced and/or cleaned as part of the inspection upon entering New Zealand. It believes that insufficient information has been provided regarding responsibility for the removal and cleaning/ replacement of filters. Their concern is that unqualified personnel could interfere with air filters, or may interfere with vehicles to access air filters. The Forum believes that filter removal and reinstallation should be carried out by personnel deemed fit by the vehicle's manufacturer or the importer so as to avoid warranty/ insurance related concerns. This may also serve to reduce costs associated with filter removal, inspection and if necessary, replacement.

***MAF response*:** Submission noted. Please refer to key statement J on implementation issues.

4.1.6 Vehicle Compliance Association (VCA), Neville Boyd, Secretary

4.1.6.1 The VCA represents 30 Independent Compliance Shops. These Compliance Shops are aware of the need to co-operate with Biosecurity New Zealand to protect the integrity of our borders.

4.1.6.2 The submitter states that the VCA Executive have tried to liaise with MAF, but the Department has not been forthcoming with any of their requests to date. These are restated:

1. 'We need an identification chart and information booklet for the pests that need to be identified;

2. we need a chart with the procedures to be carried out if any pests are found. Both Charts could be placed in a prominent position to facilitate speedy action, with phone numbers for Biosecurity staff, sprays to use etc.

3. we need a bin to dispose of the pests, if they are to be kept for the Department.

4. we need an emergency pack with the required sprays etc to follow required procedures.

5. Employers and staff of compliance centres to attend courses held by the Department, to gain the necessary expertise to carry out a satisfactory identification and disposal of 'nasties'.'

4.1.6.3 In addition to this the VCA submit that all Compliance Shops should be declared as "Special Transitional Facilities".

***MAF response*:** MAF welcomes the Association's willingness to be more involved in managing the biosecurity risk associated with imported vehicles. Improving the effectiveness and efficiency of pre-border and border interventions requires the involvement of much more than central government and we are keen to work with industry to reach a better outcome. Please refer to key statement J in section 3 of this document.

4.2 EXPORTING COMPANIES

4.2.1 AUTO-TERMINAL INTERNATIONAL LTD. (ATI) KEVIN NALDER, BIOSECURITY ADVISER

4.2.1.1 ATI is a major exporter of used vehicles from Japan to many countries, including New Zealand. ATI strongly supports the aim of reducing biosecurity risks to an acceptable level within a robust end-to-end risk management regime. Consequently, ATI has established pre-export procedures, based on a systems approach, with the aim of meeting New Zealand's current biosecurity requirements offshore. ATI will continue to work closely with MAF officials to further enhance the existing systems to meet future requirements.

4.2.1.2 ATI does not agree with the strength of the proposed measures, the extent and impacts of which have far-reaching consequences that need more in-depth analysis from technical, trade policy, and operational aspects.

4.2.1.3 ATI submit that the current risk analysis outcomes:

- **(i) Are <u>not</u> technically justified and commensurate with real risks associated with this pathway (compared with emotive and/or unknown risks); and,**
- **(ii) Do not sufficiently generate viable alternative options (e.g. for enhanced "systems approaches") to achieve equivalent biosecurity outcomes; and,**
- **(iii) Is not sufficiently robust to withstand international government to government scrutiny once elevated into bilateral and multi-lateral channels; and,**
- **(iv) Falls short on meeting a number of key international requirements (e.g. Sanitary/Phytosanitary (SPS) Agreement obligations).**

Due largely to the uncertainties and scientific gaps associated with the current analysis, an over-precautionary (i.e. risk averse) approach appears to have been taken.

***MAF response*:** Submission noted.

4.2.1.4 ATI submit that BNZ should have followed WTO- SPS notification procedures in issuing the risk analysis for consultation, given the significance of the proposed change in measures. This is because the New Zealand government is obliged to discuss the technical justification of the proposed measures with the governments of affected trading partners and also to determine what international framework(s) is most appropriate for the adoption and enforcement of any proposed new interventions in order to minimise the negative effects on current and future trade. The systematic communication of new information between trading partners is a fundamental requirement of the SPS agreement and New Zealand's consultation policy. ATI considers that BNZ has fallen well short of their SPS notification obligations in this instance.

4.2.1.5 ATI also contend that BNZ should be actively engaged in bilateral/multi-lateral communications with respect to the risk analysis and associated measures and appear to suggest that BNZ should direct future communications via official exporting country government channels as much as possible. ATI appear to suggest that should the proposed measures be implemented in their current form, they would direct future communications via the affected exporting country

government agency(s) who would be in a position to submit a trade dispute under the WTO.

4.2.1.6 ATI consider that BNZ appears to be by-passing the traditional framework of government to government bilateral discussions in relation to the used vehicle review and that BNZ appears to be prematurely relying on the services of non-government entities on a number of fronts including:

- **The provision of technical information to support (or otherwise) the outcomes from the risk analysis process.**
- **The use of commercial companies as a substitute for consulting with official government agencies.**
- **The adoption of SPS measures (i.e. official treatment interventions) outside of "official" certification activities.**
- **Possibly using (so-called) third party inspection bodies for some monitoring /enforcement activities.**

They believe this raises some very important trade policy issues that have yet to be fully considered.

***MAF response*:** Submission noted. BNZ have discussed the review with Japan MAFF who were formally sent the risk analysis as part of the public consultation. The risk analysis is the first step in the review of the import health standards, which will take account of the recommendations of the risk analysis, the submissions received, cost-benefit analysis and further logistical and policy considerations. It is BNZ practice to apply the formal WTO notification process at the stage where a revised draft standard is developed.

4.2.1.7 ATI contend that the risk analysis fails to adequately address specific risks associated with different countries that may lead to different (e.g. targeted) risk management options. The SPS agreement requires that measures are adapted to the sanitary / phytosanitary characteristics of the area and the current approach fails to achieve this. For example, a specific risk analysis for Japan, and an associated import health standard, would allow better analysis of the real risks as well as providing a better opportunity to develop and fine tune other more specific and targeted measures (e.g. using an end-to-end, "systems" based model).

MAF response: The project team considered a country based approach when planning the risk analysis. The approach taken ensures that the analysis is applicable across the range of vehicle exporting countries and is likely to remain robust in the face of changes in the pattern of vehicle exports – for instance there are indications that the volume of imports from Singapore is increasing. In recognition of the significance of the pathway from Japan, at least one Japanese species was used as an example for detailed assessment for each hazard group. The recommendations of the risk analysis in relation to vehicles imported from Japan are unlikely to have been different had a Japan specific analysis been undertaken. Many recent risk analyses are for commodities from any country, rather than being country specific.

4.2.1.8 ATI submit that the proposed measures are not based on sufficient objective and accurate scientific data (SPS requirement). They consider that more quantitative and species-specific analysis on the potential for entry and establishment is required to justify the costly interventions being proposed. They cite a quantitative risk assessment undertaken by NZ MAF (viz. *Used cars, vans and utility vehicles from Japan: An assessment of this pathway as a means by which gypsy moth may*

***enter New Zealand*) which concluded that the probability of entry (and establishment) of gypsy moth via this pathway is "extremely low" and that other pathways (i.e. vessels and containers) "pose a grater risk than used vehicles with the probability of gypsy moth egg masses entering New Zealand".**

***MAF response*:** The question of whether a risk analysis should be qualitative or quantitative is discussed in detail in MAF's 2002 handbook on import risk analysis for animal and animal products*. It concludes that no single method of import risk assessment is applicable in all situations. A qualitative assessment is essentially a reasoned and logical discussion of the relevant factors. It is suitable for the majority of biosecurity risk assessments and is most commonly used by MAF to support decision making. Regardless of the method adopted, a risk assessment inevitably includes a degree of subjectivity. Although a quantitative assessment involves numbers, it is not necessarily more objective, nor are the results necessarily more meaningful than a qualitative assessment. Choosing an appropriate model structure, which pathways to include, the values used (usually based on assumptions) for each input variable and the type of distribution applied to them, all involve a degree of subjectivity. In addition because data are nearly always lacking, some models incorporate expert opinion, which is by its very nature subjective. A reasonable level of objectivity depends, not on the method of assessment but in ensuring that the assessment is transparent. All the information, data, assumptions, uncertainties, methods and results must be comprehensively documented and the discussion and conclusions supported by a reasoned and logical discussion. The assessment should be fully referenced and subjected to peer review.

On page 115 of the risk analysis it is explained that BNZ's current draft pest risk analysis for gypsy moth differs from the earlier assessment cited by ATI, in that it covers all the pathways that are known, or suspected, for Asian gypsy moth and incorporates new information on the life cycle, host range, pathways and the incursion in Hamilton. The view expressed by the author of the earlier assessment that other pathways pose a greater risk than used vehicles, was not based on a comparable analysis for those pathways. Furthermore, the 2000 assessment cited by ATI uses interception records to quantify the likelihood of arrival. The limitations of such records are discussed on pages 9 and 10 of the vehicle risk analysis. Contaminants found on imported vehicles are not routinely recorded or identified. The interception records therefore do not provide an absolute measure of frequency of contamination. Please also refer to key statement C in section 3 of this document.

Note that the assessment cited by ATI only considers entry, not establishment. The likelihood of entry and establishment across a range of pathways has been considered more recently in MAF's draft moth risk analysis, which indicates that for gypsy moth egg masses, used vehicles are the most likely of all the pathways investigated, for arrival and establishment in New Zealand (see risk analysis pages 119 and 123).

* Murray, N (2002) Import Risk Analysis Animals and Animal Products. MAF Biosecurity.

4.2.1.9 ATI also suggest a quantified assessment of the risks associated with *Trogoderma* spp. They suggest that most "*Trogoderma* spp." interceptions found in used vehicles are in fact cosmopolitan (and therefore non-regulated) pests of no biosecurity concern and therefore do not justify a mandatory treatment intervention, particularly if equivalent interventions are not imposed on other pathways. During the review period, BNZ could have (and should have) gathered actual and confirmed interception data to support the current arguments

associated with *Trogoderma* spp., to properly draw conclusions and to justify, or otherwise, the proposed measures. The same is true for many of the conclusions drawn for other hazard organisms.

MAF response: The risk analysis recognises that laboratory microscope identification by a specialist is necessary to distinguish between dermestid beetles. On the basis of an assessment of available evidence it concludes that the high consequence hazard, *T. granarium* is only likely to enter via particular types of vehicle, namely trucks and agricultural machinery which have been used for transporting stored products (risk analysis page 160).
The risk analysis concludes that it is not appropriate to assume that evidence of dermestid contamination in other vehicles might be *T. granarium*. In recognition of the different levels of risk between vehicle types, the risk analysis indicates that visual inspection and treatment where necessary, will provide an appropriate level of protection, but that heat treatment or fumigation of all vehicles would also be effective (risk analysis page 164). BNZ does not consider that it was necessary to attempt to identify all dermestid beetle contamination to a species level. Please also refer to key statement D.

4.2.1.10 ATI submit that there is no clear evidence to support the claim that "…. even low frequency contaminants are likely to arrive at a frequency that results in establishment". If this statement did hold true, there would already be a significant number of (high consequence) pests established in New Zealand. BNZs own "slippage survey" data shows that most of the biosecurity contamination is low risk and does not support the strength of the proposed measures.

MAF response: Please refer to key statement E.

4.2.1.11 ATI raises the following implementation issues:

- **significant commercial compliance costs (both direct and indirect costs).**
- **Environmental impacts (e.g. Montreal Protocol compliance issues for both exporting counties and New Zealand).**
- **Severe restrictions to current trade volumes and/or measures virtually impossible to implement in a cost-effective manner.**
- **Requirements to review/implement new measures for other pathways to achieve the currently worded risk management objective (i.e. to manage cumulative and comparative risks).**
- **Managing SPS communication and implementation issues.**

***MAF response*:** Please refer to key statements J and L.

4.2.1.12 ATI points out that countries must avoid unjustified or arbitrary distinctions in the levels of protection considered appropriate under different situations (e.g. within and between pathways of similar risk). This is particularly important if such distinctions result in discrimination or a disguised restriction on international trade. They suggest that the outcomes from the used vehicle risk analysis work will need to be consistently applied across other pathways to avoid possible "discrimination" issues. There will be an expectation that BNZ will consistently apply new interventions across other high risk pathways with similar or greater risk for those "benchmarked" hazard organisms concerned.

***MAF response*:** The risk analysis recommends measures on the basis of an analysis of risks (rather than hazards) on the vehicle and machinery pathway. There are significant differences between these and other inanimate pathways. These include the greater complexity of vehicle structure, the unknown history of use and storage of imported vehicles, the length of time that imported vehicles and machinery remain in New Zealand and their ability to be distributed throughout NZ beyond the reach of formal surveillance programmes in the vicinity of ports (page 16 of the risk analysis).

4.2.1.13 ATI contend that the relative cost-effectiveness of alternative approaches (e.g. measures to achieve an equivalent outcome) to mitigating risks need to be further developed before final implementation of any new measures. Since only member countries (cf. non-government entities) can "enter into consultations" with the aim of achieving bilateral agreements for the recognition of equivalent measures, NZ MAF is obliged to work with government officials of affected trading partners to advance any proposals for "equivalent" measures/systems to meet the desired biosecurity outcomes. Since the analysis has apparently rejected a "systems based" approach to managing risks associated with this pathway, which ATI consider would meet the risk management objective, redress via "member countries entering into consultations" will be required. Discussions on equivalence again highlight the need for New Zealand officials to actively engage with affected trading partner government agencies.

***MAF response*:** It is acknowledged that a systems approach will be necessary to implement the recommended package of measures. The approach discussed in ISPM 14 has been considered (pages 51 and 52 of the risk analysis) and the challenges involved discussed. This approach has been specifically recommended for the management of biosecurity risks associated with new vehicles. The key difference between the new and used vehicle pathways is that the history of new vehicles is, in most cases readily available, and the risk management measures necessary to meet the stated risk management objective can therefore be more closely tailored to the individual pathway. Please also refer to key statement F.

4.2.1.14 ATI submit that the timing of the economic cost-benefit analysis appears to be out of sync with proper process and should have been developed and released in parallel, and in support of, the import risk analysis documents.

***MAF response*:** Submission noted. Please refer to key statement L.

4.2.1.15 ATI notes that there are several concurrent reviews and/or proposals for new interventions affecting used vehicle imports (e.g. biosecurity and emissions standards). The timing and cumulative effects of these measures will have significant impacts on the industry. It is therefore important that officials in the respective government agencies (i.e. MoT and MAF in this instance) are aware of, and where possible work together, to ensure that future regulatory frameworks embrace a whole-of-government approach and are underpinned by sound principles (e.g. least-cost, least-trade restrictive, acceptance of "systems approaches" to achieve required outcomes etc).

***MAF response*:** Submission noted.

4.2.1.16 ATI is concerned about due process issues associated with the consultation activities to date. They contend that from an early stage BNZ officials have taken the position that a mandatory treatment regime is required. They submit that this has undermined the integrity of the process, and has limited constructive dialogue on the possible evolution of a regime based on a "systems approach" model – something that is supported by a number of affected industry parties and is successfully working for other pathways (e.g. fresh produce, sea containers and others).

***MAF response*:** Please refer to key statement F.

4.2.1.17 ATI is also concerned that a member of the peer review team is not only a strong advocate of a heat treatment regime for used vehicles but also has commercial interests in the future implementation of heat treatment systems. This raises potential conflict of interest issues and questions of undue influence on the outcomes of the process.

***MAF response*:** Please refer to key statement G.

4.3 INSPECTION PROVIDERS

4.3.1 Japan Export Vehicle Inspection Center Co. Ltd. (JEVIC), Aaron Treadaway, International Operations Manager

4.3.1.1 JEVIC is an independent inspectorate and approved NZ MAF operator for the Pre-Shipment Inspection Program. In 2006 JEVIC processed approximately 38 percent of the total imported volume of used vehicles into New Zealand though their facilities located in Yokohama, Kawasaki, Nagoya and Osaka. In 2007 JEVIC established a facility in Singapore to meet the demand of used vehicle imports.

4.3.1.2 JEVIC questions why the conclusion from the heat treatment section is "…55-60ºC for 30 minutes is likely to be a practical measure for the treatment of vehicles…" (page 44 of the risk analysis) but the recommended measure is for 60ºC for 10 minutes.

***MAF response*:** The first conclusion comes from Chapter 4 of the risk analysis, on potential risk management measures. This chapter considered a range of possible risk management measures, discussed generic issues around their feasibility and efficacy and concluded whether they are realistic options for managing risk associated with imported vehicles and machinery (see page 29 of the risk analysis). The realistic options identified through this high level process (including a heat treatment of around 55 - 60ºC for 30 minutes) were assessed in more detail in relation to each hazard group in the subsequent chapters (see pages 74, 128, 147, 162, 210, 234, 264, 281, 297, 321 and 336 of the risk analysis). Some hazard groups are more tolerant of heat than others. Chapter 35 pulls together the analysis of the preceding chapters. On page 347 it is recognised that there is uncertainty about the heat treatment regime required to achieve 100 percent kill of all life stages of some hazards. The conclusion however, is that treatment at a core temperature of 60ºC for 10 minutes is likely to be effective against all arthropod and vertebrate hazards, but not dormant snails or the most resistant *Trogoderma granarium* lifestages. It also recognises issues relating to mosquito larval stages in water and that heat treatment will kill some but not all fungi, bacteria, viruses, nematodes and seeds associated with vehicles. A package of measures is proposed to mitigate the risk from these hazards.

4.3.1.3 The submitter notes that pests such as dermestid beetles and ants are often found under carpets and within linings and questions how the recommended rate of 60ºC for 10 minutes will address these pests when a temperature sensor in the carpets took 37 minutes to reach required temperature (page 44 of the risk analysis). He questions whether all the carpets and linings will be required to be stripped out of the vehicle prior to treatment and whether any preparation time has been taken into account when projecting the processing time for vehicles in conjunction with sensors?

MAF response: Submission noted. Please refer to key statement J in section 3 of this document on implementation issues. Note that the recommended treatment regime of 60ºC for 10 minutes refers only to treatment, not to the warm up and cool down periods.

4.3.1.4 In commenting on section 4.5.7 in which automated washing was "…considered an alternative to pressure washing in removing external accessible contaminants", JEVIC explain that they and D-CON are currently undertaking a trial with BNZ, using a combination of the automated washing and an inspection by an ISO17020 qualified JEVIC inspector to provide an equivalent to the MAFQS regulatory inspection. They expect that this will be able to provide an approved treatment/equivalent system for the treatment and certification of the underside of imported vehicles. They are pleased with the results so far, with a stop rate of 3.67 percent, and all of the contaminants of the vehicles which were stopped, falling into the low risk category i.e. no live pests. The initial results of the trial are provided. JEVIC submit that this trial should be included in the risk analysis, and be taken into consideration in the IHS review. JEVIC also state that they offered to conduct a trial using the vidioscope to describe the effect of the D-CON machine process on areas which were unable to be detected by visible inspection, but the offer was not taken up by BNZ.

***MAF response*:** MAF welcomes the automated washing trial and referred to the system in the risk analysis. The results of the trial were not available to include in the risk analysis. Please refer to key statement F.

4.3.1.5 JEVIC indicates that pre-cleaning (vacuuming and pressure wash) is currently undertaken for over 90 percent of all vehicles pre-shipment inspected by JEVIC. They consider this technique is a viable management system that clearly reduces the risk of contaminants entering NZ (Section 20.7.8). In addition, it allows the inspecting officers to view contaminants more clearly and improves efficiency.

***MAF response*:** Submission noted.

4.3.1.6 JEVIC questions the ability for either heat treatment or methyl bromide treatment of all vehicles to occur, given international obligations such as the reduction in use of Ozone Depleting Substances (ODS), or reducing the carbon foot-print. As approximately 75 percent of all used vehicles entering NZ currently undergo off-shore inspection in Japan, it is necessary to understand the effects of Japanese regulations and commitments in these areas i.e. Japan's commitments to reducing the use of ODS and their MBr quota's and ability to complete such operations within Japanese ports. JEVIC considers that heat treatment is not a viable option due to the high volumes involved and the fact that it is a commercially unproven technique.

4.3.1.7 JEVIC state that the possibility of damage to vehicles by heat treatment has not been raised, and suggest that the manufacturers of the vehicles should be approached to determine the effects of the use of such a technique on the safety and general integrity of the vehicles. It is JEVIC's understanding that although the required temperature is only 60 degrees, in order to achieve this temperature in specified areas on and within the vehicle, other areas are subject to much greater temperatures. They ask, what are these temperatures? And will manufactures of the vehicles provide certification of safety for vehicles subject to these temperatures?

4.3.1.8 JEVIC submits that New Zealand's ability to use an ozone depleting substance for quarantine treatments, does not automatically justify the treatment of 120,000 vehicles per year. They question whether international or domestic public backlash from the use of such a large amount of an ozone depleting substance has been fully explored.

4.3.1.9 JEVIC indicates that methyl bromide can cause damage to vehicles, and questions what assessment has been made of the safety and general vehicle integrity of fumigating the entire yearly import fleet. They also point out that safety concerns of people within the logistics chain, e.g. stevedores, transport operators, have not been addressed.

4.3.1.10 They ask whether the relevant regulatory bodies in New Zealand, e.g. Ministry of Transport, been consulted regarding treating the entire import fleet? And what would be the effects of these treatments on the entire fleet over time?

MAF response: Please refer to key statements J and K. See also page 44 of the risk analysis relating to temperature differentials.

4.3.1.11 JEVIC submit that the term "crash damaged vehicles" would need to be defined and question the need for insecticide treatment of these vehicles if they have been through heat treatment or fumigation as recommended.

***MAF response*:** Definitions will be addressed in the revision of the import health standards. The requirement for insecticide treatment of this group of vehicles is due to prevent recontamination after treatment.

4.3.1.12 JEVIC question what evidence has been used to assess that a 5ºC rise in temperature equates to a 20 minute reduction in time for effectiveness of treatment for all ant species including the high consequence pest Red Imported Fire Ant, given that the effective heat treatment regime for ant species is 55 ºC for 30 minutes. Similarly for dermestid beetles, with a rise of 5 ºC and a reduction of time by one third? Where is the documented evidence for this assumption?

MAF response: The issues around determining an appropriate treatment regime (whether heat or fumigation) are addressed on pages 42 and 45 of the risk analysis. In particular, there is rarely efficacy data available for species associated with the vehicle pathway. In relation to ants, the 55ºC for 30 minutes regime is a worst case scenario based on desert ant species (page 74). This is because there is not good information available on the critical thermal maxima of the types of ants associated with vehicles. The risk analysis assumes that other ants with lower thermal tolerances than desert ants will be more susceptible to heat. For instance the red imported fire ant has a reported average critical thermal maximum of 40.7 ºC (Cockendolpher, J.C.; Phillips, S.A. 1990. Critical thermal limits and locomotor activity of the red imported fire ant (Hymenoptera: Formicidae) Environmental Entomology 19 (4) 879-881). Secondly, there is a recognised association between treatment time and treatment temperature. A time - temperature curve can be derived (see discussion for the desert ant *Ocymyrmex barbiger* on page 74). The exact shape of this curve will vary according to the species. Taken together these factors give confidence that the recommended treatment regime will be efficacious against the ants likely to be associated with vehicles.

The same principles apply to dermestid beetles (see page 162 of the risk analysis). Treatment at 55ºC for 15 minutes is a precautionary scenario, since there is evidence that treatments at 55ºC for only 5.6 minutes are effective against resistant life stages. This approach is justified by the difficulties associated with applying the results of laboratory tests to a field environment and the range of species and life stages involved in the vehicle pathway.

4.3.1.13 JEVIC submit that the current "out of gypsy moth flight season 10 day inspection" is not required as there is a pre-load inspection, and 'duplicity of inspections' should be reduced. JEVIC are in agreement that there is little basis for the 3m rule, and that this needs to be abolished. JEVIC submit that the 12 hour requirement for inspection and treatment for vehicles to be inspected in NZ once discharged should be reduced to "immediately or as soon as practical within 6hrs". This will limit the window of opportunity for pest incursion and would bring vehicles closer in line to the recommendation that heavy machinery be inspected on-board.

***MAF response*:** The risk analysis recommends that both the ten day inspection and three metre separation requirements are replaced with targeted recontamination prevention measures which will take account of a range of risk factors such as the gypsy moth flight season (see risk analysis page 350). Issues relating to the order and timing of measures to prevent escape of contaminants on arrival in New Zealand will be considered in the next stages of the review of the import health standards.

4.3.1.14 JEVIC agrees that the NZ facilities require improvement, including both the initial inspection facilities available on the wharves and the transitional decontamination facilities. In many cases the surfaces (broken and potholed) are not appropriate for inspection and re-inspection, with inadequate provision of inspection infrastructure such as ramps and lighting. Full water treatment facilities would be expected for this type of transitional facility.

***MAF response*:** Submission noted.

4.3.1.15 JEVIC agrees with the logical summation in section 35.3.4. which will assist the MAFQS in making informed rational judgments. They would like to see these identified contaminants included in the revised IHS.

***MAF response*:** Submission noted.

4.3.1.16 JEVIC agrees with the summation that new vehicles are considered a risk, and are not the same as used-vehicles except in the circumstance where the used-vehicle has been processed through the off-shore inspection program. JEVIC further submit that any post-treatment /inspection requirements for used-vehicles in the off-shore program (including facility requirements, loading checks, ship-side checks etc) should be applied to new vehicles.

4.3.1.17 They note that the disparity in processes applied to new vehicles and off-shore inspected used vehicles has neither been mentioned nor addressed in the risk analysis.

MAF response: Please refer to key statement H.

4.3.1.18 JEVIC agrees with the need for increased training of officers involved in the inspection of machinery, trucks and other vehicles capable of holding water and the requirement for shipboard inspections of non-offshore inspected machinery. This type of on-board inspection has been required for some time, but there is doubt whether this inspection has been executed fully.

4.3.1.19 JEVIC submits that cleaning of air-filters would adequately deal with any contaminant, and that the replacement of air-filters would prove to be logistically difficult. JEVIC question whether the replacement of air filters would become mandatory on-shore as well as off-shore.

***MAF response*:** Submission noted. The risk analysis did not identify any reason for different requirements for air filters managed off-shore compared with on-shore.

4.3.1.20 JEVIC agree with the need for greater awareness raising for overseas stakeholders using information in appropriate languages.

4.3.1.21 JEVIC agree that offshore risk management is preferable to onshore management.

4.3.1.22 JEVIC submits that heat treatment has not been used at all at the operational scale that is recommended in the risk analysis. JEVIC questions the wisdom of recommending a treatment which has not been shown to be commercially viable, available, safe, practical or legally operational.

MAF response: Please refer to key statements I and J.

4.3.1.23 JEVIC questions the inclusion of Mr. Gordon Hoskins as one of the reviewers for the Chapters 1-4, and Summary of Recommendations as Mr. Hoskins is heavily involved with Frontline, one of the major proponents of vehicle heat treatment.

MAF response: Please refer to key statement G.

4.3.1.24 JEVIC question why the contractors undertaking the cost/benefit analysis asked a specific question regarding air-filters, if the replacement or treatment of air-filters is not a recommended measure.

MAF response: Replacement or cleaning of vehicle air-filters is not recommended in the risk analysis because there was insufficient evidence to justify it and it was identified as a priority for research. The recommendation relating to air filters may need to be revisited in the light of additional information and it would be sensible to have cost information available if that were to happen.

4.3.1.25 JEVIC summarise that the company is committed to the biosecurity of New Zealand, but is opposed to some of the recommended measures set out in section 35.1, namely compulsory fumigation or heat treatment. They submit that these are not the only current alternatives, since positive results from other forms of treatment such as the JEVIC - D-Con Process have been illustrated.

Furthermore they submit that it is not practicable to either chemically or heat treat every vehicle. There are logistical problems, substantial cost increases and operational constraints in Japan as well as physical, environmental and safety constraints. Heat Treatment is logistically not feasible as a high volume solution. The effectiveness is also questioned with various contaminants not being effectively treated at the recommended regime. They question whether the vehicle manufacturers are willing to certify that heat or methyl bromide treatment will have negligible effects and whether the Ministry of Transport or Land Transport New Zealand been consulted.

4.3.1.26 JEVIC believe that keeping the risk off shore is important to the New Zealand environment, and therefore support off-shore clearance and recommend 100 percent pre-cleaning prior to inspection by a NZ MAF officer or equivalent.

MAF response: Please refer to previous responses and key statements F, I and J.

4.4 TREATMENT PROVIDERS

4.4.1 Biosecurity Solutions Ltd. (BSL), Lance Dear

4.4.1.1 The submitter explains that BSL owns the technology of the BioVapor Heat Treatment system and the company has been running a small heat treatment facility in the Ports of Auckland since November, 2006. BSL indicates that more than 100 imported used vehicles have been treated in the facility with 100 percent success rate and with no damage to any of the cars including those with complex electronics and high-spec luxury vehicles. The submission states that cars have been treated for a number of organisms including ants, moths (including the painted apple moth) spiders and Trogoderma. The treatment regime was 54°C (min) for ten minutes. An example of the printout graph from eight temperature sensors was provided.

4.4.1.2 The submission identifies reasons why heat treatment is preferable to methyl bromide:

- **Fast treatment times (approximately 30 minutes per car)**
- **No residual smell**
- **Chemical free, environmentally friendly and health friendly for operators**
- **Good penetration through metal**
- **Simultaneous treatment for arthropods, bacteria and viruses**
- **Direct –flame technology enables fast ramp-up time and is fuel efficient**
- **The cost would be significantly less than methyl bromide treatment.**

4.4.1.3 BSL are designing a larger facility with an expected throughput of 150 cars per day per unit. Multiple facilities can be run in parallel to provide through put of 300-450 cars per site per day, providing a capacity to move up to 1,000 cars in a 2-3 day period after landing. This enables scalability to meet the erratic and seasonal demands of vehicle arrivals.

4.4.1.4 The submission concludes that heat treatment technology can be rapidly and cost effectively implemented for 100 percent treatment of all imported used cars.

***MAF response*:** Submission noted. Please refer to key statement J. MAF would welcome evidence to support the claim of 100 percent efficacy for any treatment.

4.4.2 Frontline Biosecurity Limited, Gordon Hosking.

4.4.2.1 'The project team is to be congratulated on a thorough and comprehensive risk assessment. The document provides good background material on the characteristics of the risk pathway and the current risk management measures. It also presents very valuable data on the efficacy of current measures. Section 4 dealing with potential risk management measures provides a balanced assessment of the advantages and disadvantages of alternative strategies and the operational implications of treatment regimes. The risks posed by various organisms are well considered within the limits of literature and data that is available.'

4.4.2.2 'While beetles of forestry importance are probably relatively rare imports in vehicles and machinery, most entering in wood and bark material, the group does contain some very serious pests and vectors of forest diseases, as noted in the analysis. For this reason I believe any proposed risk mitigation measures must effectively address this group both directly by treating unconstrained adults, and indirectly through the treatment/removal of host material.'

***MAF response*:** Submission noted.

4.4.2.3 'Lepidoptera are considered by the forestry sector as potentially the most serious risk group which are known to utilise this pathway. Past experience has shown lymantriid moths, including gypsy moth and tussock moths, to be regular interceptions on used vehicles. The pathway may also have been the one to deliver white-spotted tussock moth into Auckland in the 1990s and later gypsy moth into Hamilton. The habit of lymantriids to lay egg masses on any part of a vehicle, many sites which are difficult to detect by visual inspection, argues for robust risk management measures which will ensure all parts of the vehicle are insect free, a situation that cannot be achieved by even the most intensive visual inspection. Fumigation or heat treatment are the only really practical options currently available.'

***MAF response*:** Submission noted.

4.4.2.4 'Micro-organisms will continue to be a challenge to risk management both from the risk assessment and risk mitigation points of view. While visual inspection is a poor strategy, we lack considerable data on the efficacy of alternative strategies such as fumigation and heat. There is little doubt if one component of risk from this pathway requires greater definition and development of mitigation measures, it is micro-organisms. From the forestry sector point of view significant soil contamination is seen as a serious risk.'

***MAF response*:** Submission noted.

4.4.2.5 'While it is accepted that the risk posed by the new vehicle pathway has been specifically excluded from this review, the lack of an IHS for new vehicles is seen as a significant anomaly in risk management. Some of the most significant risks to forestry, lymantriid moths, can equally affect new vehicles when they are stored in the open environment. In fact the current storage time constraint on the shipping of used vehicles indirectly acknowledges this risk. We believe new vehicles should be treated no differently than used vehicles despite the accepted lower risk.'

MAF response: The new vehicle pathway is included in the review of import health standards. The risk posed by new vehicles was assessed for each identified hazard group and a package of risk management measures recommended (section 35.4 of the risk analysis). Please also refer to key statement H.

4.4.2.6 'There is a major effort underway by the forestry sector to reduce the use of methyl bromide for forest produce. Should methyl bromide fumigation be allowed as an option for mandatory treatment of used vehicles, and should it prove to be the least expensive option, in excess of 100 tonnes of methyl bromide could be added annually to New Zealand's usage (a 50 percent increase over current use). While alternative fumigants such as sulfuryl fluoride might overcome the environmental concerns associated with methyl bromide, the increasing social pressure against the use of fumigants near populated areas makes any form of fumigation undesirable.'

***MAF response*:** Submission noted. Please refer to key statement K.

4.4.2.7 'Frontline Biosecurity does of course have a vested interest in the use of heat treatment for biosecurity risk reduction. This does not alter the fact that heat is known to be effective against a wide range of risk organisms, is operationally a practical treatment, and is of very low environmental impact. Internationally heat is increasingly being seen as a simple, effective, and widely acceptable means of risk reduction in both the quarantine and market access area. It is our view that mandatory heat treatment of all used vehicles and machinery would be a major step forward in reducing the biosecurity risk from this pathway. While accepting that no strategy will reduce the risk to zero, what is needed is the biggest gains for the least cost, economically, environmentally, and socially.'

MAF response: Submission noted. Please also refer to key statement G.

4.4.2.8 'We consider the current risk assessment to be a very significant step in reducing the risk of new organisms being introduced into New Zealand via the used vehicle and machinery pathway. We are keen to see the potential of this fine effort realised by the introduction of risk reduction strategies that greatly improve on the current discredited procedures. Frontline Biosecurity has actively campaigned over the past 7 years for effective action against this high risk pathway, and is pleased to see the promise of real progress.'

MAF response: Submission noted.

4.4.3 Japan Fumigation Technology Association, Dr. Fusao KAWAKAMI, (New Zealand liaison: Satoshi TANIGUCHI, Japan Business Links Ltd.)

4.4.3.1 The submission relates to section 1.1.5 of the risk analysis. It proposes a system whereby the recommended risk management measures for imported used vehicles could be implemented in Japan. In summary it involves:

1. **'Pre-shipment checking companies conduct LTNZ check and vacuuming/pressure wash of all used vehicles to be exported to New Zealand, and send confirmation documents to Treatment Service Providers.**
2. **Treatment Service Providers conduct heat treatment on all vehicles. Japan Plant Quarantine Association (JPQA) will send their staff and check that treatment is satisfactory**
3. **After the heat treatment, a certification sticker of vacuuming/pressure wash and heat treatment is given to appropriate vehicles by JPQA. The certification sticker is issued by the name of Japan Fumigation Technology Association (JAFTA).**
4. **JAFTA examines efficiencies of relevant heat treatment facilities, and then issue a certificate. JAFTA also will provide technical advice and a training course to Treatment Service Providers and JPQA, and issue a completion certificate.**
5. **This quarantine system and treatment service can be organized at major ports in Japan. Its certification system would be administrated by JAFTA and JPQA, which are affiliated organizations of Ministry of Agriculture, Forestry and Fishery of Japan.'**

4.4.3.2 The submitter estimates that based on a heat treatment regime of 65±5°C for10 minutes and a processing efficiency of 8 units/hour or 192 units/day or 50,000 units/year, the cost of heat treatment would be 11,000 yen/unit (for the fist three years) reducing to 9,000 yen/unit (after the first 3 years, if treated more than 120,000 units in the 3 years).

4.4.3.3 The heat treatment service providers for this proposal are located throughout Japan, and currently provide mainly methyl bromide fumigation services for timber and produce. They are members of both Japan Plant Quarantine Association (JPQA) and Japan Fumigation Technology Association (JAFTA). The JPQA is an affiliated organization of the Ministry of Agriculture, Forestry and Fishery of Japan. Under the Plant Quarantine Regulations, they act on behalf of MAFF Japan and support MAFF Japan regarding disinfection related services. JAFTA is also an affiliated organization of MAFF Japan. They provide fumigation related and other technical advice to treatment service providers and plant makers.

4.4.3.4 The submission identifies a number of benefits from this proposed risk management scenario:

1. **'No need to conduct quarantine checks (for all vehicles), as heat treatments to all exporting vehicles from Japan to New Zealand would have been completed.**
2. **The slippage would be largely decreased, and pest invasion risk to New Zealand would be dramatically decreased.**

3. **The importing vehicles process would be stabile and smooth in New Zealand.**
4. **Methyl bromide would not be used; therefore not harming the environment.**
5. **Safe and high quality of treatment.**
6. **Lower treatment cost through the use of high efficiency heat treatment facilities and intensive treatment operations.'**

MAF response: Submission noted please refer to key statement J on implementation issues, in section 3 of this document.

4.5 PORT COMPANIES

4.5.1 Port Companies of New Zealand, Barrie Saunders, Saunders Unsworth.

4.5.1.1 'This submission is made on behalf of 15 port company chief executives that work together on public policy issues. They are the ports of: Northport Limited, Ports of Auckland Limited, Port of Tauranga Limited, Eastland Port Limited, Port of Napier Ltd, CentrePort Limited, Port Taranaki, Port Nelson Ltd, Port Marlborough NZ Limited, Lyttelton Port of Christchurch Limited, PrimePort Timaru Ltd, Port Otago Limited, South Port New Zealand Limited, Port of Greymouth and Buller Port Services (Westport).

4.5.1.2 Specific information has been received from the ports that handle most of the vehicles and machinery imported. As a general proposition ports are strongly of the view that biosecurity risks should be managed offshore wherever that is practicable. Where this is not possible MAF will need to determine which if any ports can accommodate treatment facilities, or how vehicles will be transferred to off wharf sites for processing.'

***MAF Response*:** Submission noted. Please refer to key statement I in section 3 of this document in relation to offshore risk management.

4.5.1.3 The submission notes that the impact on ports and importers from the proposed changes to health standards for used vehicle and machinery imports treated here would be major, and suggests that MAF run workshops with the most relevant ports and importers prior to drafting the revised import health standards.

4.5.1.4 In relation to the questions asked, the ports responded that they are not able to make a meaningful comment on the risk assessments. However they suggest the risks associated with raising vehicle temperatures to at least 60°C for at least 10 minutes, needs to be thoroughly investigated. A maximum temperature should be included if 60°C itself is not deemed to be too risky.

MAF Response: Submission noted. Please refer to key statement J on implementation issues.

4.5.1.5 In relation to the efficacy of risk management measures, the ports indicate that 'the preferred package of measures would have major implications for port companies for those vehicles or machinery that are not treated offshore, which is strongly preferred. There are two broad options for these categories of vehicles.

The vehicles could be treated and inspected on the wharf area or at another location, most likely a compliance workshop which would have to become a MAF transitional facility.'

4.5.1.6 The ports note that the compliance workshops 'could add MAF requirements to their existing roles. However in order to manage the transit risks, the vehicles would have to be carried in trucks or trains that were secure from a biosecurity perspective.'

MAF Response: Submission noted. Please refer to key statement J.

4.5.1.7 They note that each port's ability to process vehicles is different and depends on volume and area considerations. The major receiving ports are Ports of Auckland Ltd. (POAL) and Lyttelton Port of Christchurch (LPC). Both are seriously constrained and do not have wharf areas that could handle large volumes of vehicles that required the proposed heat or methyl bromide treatment.

4.5.1.8 'Ports of Auckland Limited

- **Used cars volumes through Auckland vary between 100,000 and 120,000 per year.**
- **Car vessels tend to bunch up with at times up to 7,000 vehicles being discharged over a week. The actual capacity of the dedicated car wharves is far less than that; however cars are stored in other often inappropriate parts of the Port.**
- **In recent years there has been an increase in pre-inspected vehicles so that about 65 percent are pre cleared. This considerably assists in rapid clearance off wharf.**
- **The two further constraints that often result in longer dwell times are. Capacity for MAF to provide a timely service 24/7 all weathers and a shortage of trucks and drivers during peaks or at holiday periods.**
- **The result is periods of severe congestion now (even though car volumes are relatively soft).**
- **Ports of Auckland's container business has expanded rapidly in recent times which creates further pressure on space for conventional cargo. Furthermore there is ongoing political pressure to release wharves currently used for cars to the city of Auckland.**
- **The proposed increased treatment required would not be able to happen at the Auckland wharves without enormous disruption to the shipping lines which would need to wait for extended periods while space was made clear.**
- **2115 used cars per week would require say 1.5 hours to process, therefore extra car hour needed 3,172 hrs, if they were all processed at the port. Even if a processing system could cut the extra time 10 fold, the problem is huge.**
- **If vehicles could be moved off wharf for processing elsewhere then a whole new transport regime would be required that would involve rail and an increase in trucks, but would risk contamination during the transport phase, unless carefully managed.**
- **Rail transport to an offsite clearance location has been investigated and would add costs of around $100 per vehicle. That study occurred about 18 months ago.**

- **Ports of Auckland has investigated ways to increase capacity. This includes further seabed reclamation and the building of high density car parks(stackers)**
- **The reclamation option is not feasible due to resource consent requirements and very high costs as well as significant lead times**
- **Car stackers could be a viable option but are relatively expensive. Indications are a 1500 vehicle building would cost between $15,000,000 and $18,000,000 to build and lead times are around 10-12 months.**
- **Several such stackers would be required to deal with suggested processing on wharf.**

Finally one option included the use of methyl bromide which we believe that would not be an option on the Auckland waterfront, due to the close proximity of residential buildings and bars, restaurants etc. Waterfront unions would also total reject working with or near to a facility using such treatment.'

MAF Response: Submission noted. Please refer to key statements J and K.

4.5.1.9 'Lyttelton Port Company of Christchurch

4.5.1.10 LPC handles around 40,000 vehicles a year which makes it the second largest port in respect of vehicle imports. The port is very constrained in terms of space and treatment of large numbers of vehicles at the port, as proposed in the preferred option, is probably not viable. Transferring the vehicles to a compliance centre would work provided the appropriate fleet of trucks was available.

4.5.1.11CentrePort

4.5.1.12 CentrePort handles between 25-35,000 import vehicles per year. Accommodating these volumes on the port provides a number of logistical challenges. Under the proposed preferred package of measures, CentrePort would not only be impacted operationally, but also commercially.

4.5.1.13 Other ports

4.5.1.14 Other ports handle much lower vehicle volumes. This makes it relatively easier for them to consider the treatment in the preferred option. However heat treatment for instance would involve significant capital expenditure and this may not be viable, particularly having regard for the uneven flow of vehicles through these ports.'

MAF Response*:* Submission noted. Please refer to key statement J.

4.5.1.15 'Alternative package of measures.
The alternative package of measures is a significant enhancement of the existing process. We note that on page 5 the paper says the alternative package of measures is not recommended because it will be less effective with high risk ants,

moths, reptiles and spiders. But the paper also said "it is likely to be more efficacious for plant seeds and snails".

4.5.1.16 In making policy Biosecurity NZ should have regard for the economic impact of the import trade over the short and longer terms. The radical nature of the proposals in the preferred option would be very costly and potentially disruptive to the trade. In addition they would require a significant lead in time for the facilities to be created and become operational. New and used vehicle imports are an important part of the transport industry. Radical change could damage seriously key components of this trade and cause business failure and loss of jobs.

4.5.1.17 For these reasons the port companies suggest Biosecurity NZ ensure that any changes are introduced in a way that is manageable by the industry and does not cause significant job losses and business failures.

4.5.1.18 The ports recommend that Biosecurity NZ adopt the alternative package of measures and, after a period, revisit the extra elements in the preferred package to determine whether they are necessary in the current form.'

MAF Response: Submission noted. Please refer to key statements E, J and L.

4.5.1.19 The ports agree with the proposed approach for new vehicles.

MAF Response: Submission noted.

4.5.1.20 The ports consider 'the interim package of measures new and used machinery, trucks and other vehicles capable of holding water a radical change on the status quo. Whether the steps proposed are cost efficient is not something port companies can comment on. We recommend there be a thorough costs benefit analysis of the proposed interim steps because their impact will be major.'

MAF Response: Submission noted.

4.5.1.21 'After this analysis has been done port companies believe that Biosecurity NZ must introduce any changes in a way that does not disrupt the trade, because that could create as much economic damage as the biosecurity risks. The New Zealand economy has benefited enormously from the importation of used trucks and machinery and this trade should be allowed to continue alongside reduced biosecurity risks.'

***MAF Response*:** Submission noted.

4.5.2 Port of Tauranga Ltd, Grant Macvey, Cargo Services,

4.5.2.9 'The Port of Tauranga fully supports any initiatives, which provide more security against the incursion of pests into New Zealand. As the facility which handles the largest volumes of forestry products and kiwifruit in New Zealand, they are fully aware of our responsibility to do everything possible to protect these industries from harm.'

***MAF Response*:** Submission noted.

4.5.2.10 '…any form of treatment for vehicles and machinery should be carried out offshore. New Zealand's ports simply do not have the room to provide the facilities required for this type of operation to be carried out efficiently. Severe congestion is already being experienced on our wharves and the introduction of a further "bottleneck" would be disastrous.'

***MAF response*:** Submission noted please refer to key statement I regarding offshore risk management.

4.5.2.11 The submitter is totally opposed to any scheme, which further increases the use of methyl bromide, when other, less harmful fumigants are available. He suggests phosphine, which is already used to fumigate logs whilst on passage from New Zealand to China and a processed form of phosphine used in Chile to fumigate fruit and vegetables.

***MAF response*:** The risk analysis considered the use of phosphine in section 4.5.3. It was ruled out as a possible risk management measure for vehicles because it is corrosive to metals, particularly copper and any copper-containing equipment (especially electrical apparatus) may be damaged. Other fumigants were also considered. Whilst methyl bromide is currently the only available fumigant for vehicles, the risk analysis recommended research into alternatives and MAF is funding such research.

4.5.2.12 'Whilst heat treatment is effective for killing insect life, it has been disclosed that heat treatment does not necessarily kill off all "plant" type contaminants. We fail to understand how this form of treatment could be considered in isolation.'

MAF response: Heat treatment is not being considered in isolation. The risk analysis recommends that a package of measures is required to manage the range of biosecurity hazards (pages 4 and 342).

4.5.2.13 'The Port of Tauranga Ltd appreciates the opportunity to take part in the consultation process and wish to be involved in any future discussion with regard to treatment procedures and, where these should take place.'

***MAF response*:** Submission noted.

4.6 SHIPPING COMPANIES

4.6.1 Kiwi Car Carriers (NZ) Ltd. (KCC) including a review by Mr. Ruud Kleinpaste

4.6.1.1 KCC explain that their submission is based on the professional insight of entomologist, Mr Ruud Kleinpaste (whose analysis was attached) and on their own experience and research. Mr. Kleinpaste's comments are responded to separately only when they are not duplicates of points made by KCC.

4.6.1.2 KCC supports the set of measures as outlined in 35.2 of the 'Summary of Recommended Risk Management Measures'.

MAF response: Submission noted.

4.6.1.3 KCC is concerned 'about the presence of Mr Gordon Hosking on the Advisory Board. They state that it is well known that Mr Hosking has at least an intellectual (if not also financial) interest in a heat treatment machine. This most certainly suggests a potential 'conflict of interest' in championing this proposed method of mandatory treatment.'

***MAF response*:** Please refer to key statement G in section 3 of this document. There is no 'Advisory Board' for this risk analysis. Dr. Hosking's peer review comments and the consequent changes to the risk analysis are attached as Appendix 2.

4.6.1.4 'There is much debate as to the effectiveness and significance of such an expensive and time consuming process. Notwithstanding the financial and environmental constraints of introducing this system of 'partial' decontamination, there is expert opinion that neither the proposed temperatures and/or the time exposed will be sufficient to eradicate the target pests. (any higher temperatures are likely to adversely affect the vehicle interior).'

MAF response: Since the details of the expert opinion and the efficacy concerns are not provided, it is not possible to assess this comment.

4.6.1.5 KCC investigated the possible introduction of heat treatment machinery (that with which Mr. Hoskings was involved) into each of their four ports in Japan some years ago. They discovered restrictions applied by individual Port Authorities. There are constraints on most Ports (the majority of off-shore facilities in Japan are operated on public port areas), use and supply of electricity, gas, diesel etc. They state that these restrictions still apply today.

4.6.1.6 'We support the 'Bio-vapour' heat treatment option currently being provided on the Port of Auckland, as an alternative to methyl bromide fumigation, but only for vehicles that have been separately identified by MAF Inspection to contain a regulated risk contaminant. Their support is conditional on this form of heat treatment meeting MAF Biosecurity protocol to mitigate all risks.

4.6.1.7 We point out that the current timing of vehicles requiring heat treatment is a minimum of 30 minutes up to a maximum known thus far, of 1 hour and 47

minutes. They consider this to be a commercial and practical impossibility on either the Ports in New Zealand or in Japan.

4.6.1.8 It should also be noted that if units were treated in Japan and then audited by MAF in New Zealand, and even one unit was found to have a regulated pest, the entire consignment of vehicles (up to 2,000 per vessel), would require re-inspection by MAF. They question whether MAF resourcing would allow this within the regulated 8 hours of discharge from a vessel?'

4.6.1.9 'We wish to point out the huge differential in the 'cost' to operators of the off-shore quarantine inspections, as opposed to those conducted on-shore. We believe that if Biosecurity New Zealand is serious about preferring risk to be managed off-shore, then operators need to have an incentive to continue the high cost of providing it. Currently there is no recognition of the savings to MAF NZ in having an ability to currently manage 75 percent of the Japan used vehicles imported, off-shore. Vehicles inspected by MAF NZ at the border in New Zealand attract an inspection fee of the same level applied in Japan, and yet significantly more resource in manpower and time is required to accommodate those border inspections.'

***MAF response*:** Submission noted. Please refer to key statement J on implementation issues. Please note that the reaction to failure of an audit has not been determined. It will be considered in the next stages of the review of the import health standards.

4.6.1.10 KCC agrees that the Used Vehicle Pathway could contribute to the number of ant species entering New Zealand. However they believe that the current methods employed (visual inspection, vacuum cleaning, and fumigation where deemed necessary by MAF Inspector), sufficiently mitigates this group as a risk. They suggest that thorough vacuuming eliminates the human food residues in each vehicle that an ant may live on. They point out that ants can colonize new vehicles as easily as used vehicles, and yet no proposed 'hard measures' are proposed for new vehicles.

MAF response: The submitter has not specified the objective against which they are judging the efficacy of the current system in mitigating the risk from ants. The effect of vacuuming and the likelihood of ants entering on new vehicles are both addressed in the risk analysis (pages 73 and 75). Please also refer to key statement H on new vehicles.

4.6.1.11 'Expert opinion suggests that during heat treatment, any ants will naturally seek the coolest hiding places. A constraint of the heat treatment process is that once the vehicle cools, any pests located in any such hiding places will simply venture out of hiding. We believe that a more significant 'catch all' treatment would be the use of residual sprays and permethrin fogs. This would also stop pests from having the potential to move from vehicle to vehicle. With heat treatment, once the vehicle has cooled down, there is little to stop that unit becoming re-infected.'

***MAF response*:** In considering the potential of heat treatment, the risk analysis recognised that insects will seek out cold spots and the need to ensure that all such spots are maintained at the specified treatment temperature for the full treatment period (page 43). The risk analysis recognises the importance of preventing recontamination post-treatment (see page 349 of the

risk analysis). The use of residual insecticide as an alternative to heat treatment was considered in the risk analysis (pages 48, 49, 163, 236, 320, 343). Difficulties around efficacy, resistance and contact were identified, and if these could be overcome, this might provide a useful treatment. Any new data that would enable the efficacy of this treatment to be judged against the risk management objective would be welcomed.

4.6.1.12 'Methyl bromide is no longer a commercially viable fumigation option available in Japan, because its use is strictly controlled and licensed, and in the process of being phased out of use altogether.'

MAF response: Submission noted. Please refer to key statement K.

4.6.1.13 KCC contends that for many of the pest risk groups where heat treatment is not effective, the use of residual insecticide is likely to be more valid and effective. They indicate that over the past 25 years, MAF have researched and developed a good system for aircraft disinsection involving residual sprays and pyrethrum fogs (with fine nozzles, delivering gaseous materials for cavities, or with droplet sprays for surfaces). None of this technology seems to have been seriously explored in the risk analysis (apart from a recommendation to conduct some further research). KCC are conducting 'live' trials on vehicles carried to New Zealand (under the guidance of Mr Kleinpaste and with the knowledge and assistance of MAF NZ). KCC considers the use of residual insecticides would deal with all the spiders and their webs, plus all crepuscular insects in all sorts of hidden places.

4.6.1.14 'Recent pilot trials with *Eradicoat* pyrethrum show an impressive knockdown and kill, 8 months (!) after spraying. KCC believes that this material (and the gaseous Permigas for cavities) will be likely to kill most ants, Dermestids, cockroaches and spiders. Although vacuum cleaning interiors is not regarded as sufficient treatment against exotic Dermestids, it is likely that with some added *Eradicoat* we can beat the longevity of the very rare *Trogoderma* grubs.'

MAF response: It is very unlikely that any treatment will be 100 percent effective against all life stages of all hazards all the time. The risk analysis recognised that the recommended heat treatment regime may not deliver the desired efficacy for snails, plant seeds, some organisms associated with soil, plan and animal debris and mosquito larvae in large volumes of water. For this reason a package of risk mitigation measures was recommended. The submitter has provided no evidence that residual insecticide will provide higher levels of efficacy against snails, plant seeds, some organisms associated with soil, plan and animal debris and mosquito larvae in large volumes of water.

The use of residual insecticide as an alternative to heat treatment was considered in the risk analysis (pages 48, 49, 163, 236, 320, 343). Difficulties around efficacy, resistance and contact were identified. MAF welcomes any new data that would enable the efficacy of this treatment to be judged against the risk management objective. Please also refer to key statement F.

4.6.1.15 'It is clear that the financial and time constraint burden that Off-shore operators such as ourselves would face if treatments such as the use of 'Heat' machinery, can result in operators simply 'closing' operation in Japan.

4.6.1.16 'Risk management' is surely about using the best 'proven' methods of pest detection, applied across all the fundamental measurements that any enterprise must face as a study in viability.'

MAF response: In the context of this risk analysis, risk management is a process of setting a risk management objective on the basis of risk assessment, evaluating options and considering their risk reduction effects, recommending measures to meet the risk management objective whilst minimising the compliance costs and monitoring the implementation of risk management measures and reviewing them as necessary (page 14). The importance of minimising compliance costs is recognised and given the significance and complexity of this pathway MAF commissioned an independent analysis of the costs and benefits associated with the various risk management measures identified in the risk analysis. Please also refer to key statement L.

4.6.1.17 KCC question why since 95 percent of all imported used vehicles originate from Japan, the risk analysis was not restricted to Japan. Over the past 10 years Japan has developed it's own style of 'off-shore quarantine', which has shown to have some good and targeted advantages. Why not simply continue utilizing that?

MAF response: The project team considered a country-based approach when planning the risk analysis but decided in favour of the approach taken, so that the analysis is applicable across the range of vehicle exporting countries and is likely to remain robust in the face of changes in the pattern of vehicle exports – for instance there are indications that the volume of imports from Singapore is increasing. In recognition of the significance of the Japanese pathway, at least one Japanese species was used as an example for detailed assessment for each hazard group. The recommendations of the risk analysis in relation to vehicles imported from Japan are unlikely to have been different had a Japan specific analysis been undertaken. MAF agrees that there are advantages to the off-shore risk management regime developed by KCC and others. However, until now we have not known whether the system provides an appropriate level of biosecurity protection. This is because the biosecurity risks associated with the pathway had not been assessed, nor had the efficacy of the current regime been reviewed against a clear risk management objective.

4.6.1.18 The submitters agree with the principles discussed in relation to improved facilities.

MAF response: Submission noted.

4.6.1.19 KCC reiterate their belief 'that the current improved methods of risk detection and elimination are 'managing the risk' to an acceptable level. This can surely be evidenced by the lack to date of any proof of establishment in New Zealand of any of the 'Japan' originating pests identified in the report.'

MAF response: Please refer to key statements A and E.

4.6.1.20 KCC state that infestation data on new vehicles are almost absent. 'This is one of the reasons that new cars have – from a Biosecurity point of view - a very easy ride into the country.' They wonder how hitchhiking organisms consistently manage to prefer used vehicles to new vehicles. They suggest that 'important

factors that relate to re-contamination after greening of used vehicles also relate to new vehicles:
***Storage facilities: covered or uncovered**
***Nocturnal lighting attracting flying invertebrates**
***Surface condition TRS; hard or soft – weedy or clean – muddy or sand**
***Length of time stored;**
***Flight period for AGM/spiders ballooning/seed release. etc**
***Nearby plantations/forests/weed patches with insects and seed sources**
***Unprotected slot drains/ponds with mosquito or frog habitat in vicinity**
***Nearby lizard habitat**
***Spare tyres lying around/Rubbish/Old timber**
***Food remains/wrappers/packaging with food etc**
A lot of the so-called hazard groups, mentioned in tables 1 & 2 (between pages 6 and 7) will find their own way onto new vehicles to.'

4.6.1.21 KCC indicate that sea containers and 'new' vehicles are 'risk' pathways and that currently uninspected/treated containers or new cars can traverse the length of New Zealand freely. No cognizance is taken of the fact that either of these pathways are as much or more of a risk than second hand vehicles in allowing colonies of risk insects/plants to establish.

***MAF response*:** The reason why new vehicles are not generally currently subject to biosecurity risk mitigation measures is because the risk has not previously been assessed. The paucity of interception data is in large part, due to the absence of routine inspection and hence data recording (pages 27, 352 & 353 of the risk analysis). The risks have now been assessed in relation to the biology of the various hazard groups and the likelihood of association with new vehicles. Please refer to key statement H. The risk posed by sea containers is outside the scope of this risk analysis. Nonetheless the risk factors relating to the container pathway differ from those for the used vehicle pathway and are briefly discussed in the analysis (page 16). The likelihood of entry and establishment was compared across pathways for some organisms, notably some high consequence moths (page 119).

4.6.1.22 'The video-scope report shows that only 14 pre-cleared vehicles ex Japan were found to have contaminants: small amounts of dried plant material, some pine needles and a bit of soil. The fact that no egg masses (or any other evidence) of Lymantriid moths were found in the "slippage" or video-scope surveys of pre-cleared vehicles, is never mentioned as a possible indication that the cleaners and inspectors in Japan are doing some things right.'

MAF response: Whilst the videoscope and slippage surveys give an indication of the efficacy of the current regime and of the types of contamination that are missed, they were designed to be snapshots, not to provide definitive rates of slippage for individual organisms. Only 24 vehicles imported as break-bulk and inspected off-shore were examined using the videoscope, and the sample size is too small to draw meaningful conclusions. Moreover it would not be expected to pick up lymantriid egg masses which occur at relatively low frequency. Even for the larger slippage survey, which relied on unaided visual inspection, there was a 95 percent chance of detecting visible contamination affecting 1 in 182 imported used vehicles (see page 33 of the risk analysis). Lymantriid egg masses occur less frequently than this (maximum infestation levels appear to be about one vehicle in 900, risk analysis page 119). Other high

consequence moth species occur at even lower frequencies. Please also refer to key statement B.

4.6.1.23 KCC questions what evidence there is that soil, seeds, leaves etc detected in hidden locations by the videoscope, spontaneously leave these hidden locations in the country of destination.

***MAF response*:** The risk analysis concluded that transfer of an individual organism associated with soil, plant debris etc to an environment suitable for establishment is unlikely to occur from concealed parts of a vehicle's structure which are not accessible without some dismantling. The recommended measures are based on the clearly stated assumption that any micro-organisms associated with non-visible soil, animal and plant debris inside the structure of the vehicle will not be able to establish in New Zealand and is therefore not considered to be a hazard (pages 199 & 213).

4.6.1.24 'Slippage was determined for cars that were inspected and cleaned offshore. This presumably gives some kind of measure of the efficacy of the cleaning and inspecting system in Japan. Many people in Japan wonder if a "slippage survey" was also carried out on the on-shore inspection and cleaning system in New Zealand. The reason is simple: frequently BNZ and MAF argue that Japanese workers are not as reliable as New Zealand employees when cleaning vehicles to New Zealand's Biosecurity Standard… (apparently to do with pride for the country?) A lot of data, generated in the video-scope survey(s), were obtained after modelling, but frequently the *modus operandi* of that modelling is not revealed. This not only makes the video-scope report less credible, but also the Risk Analysis itself.'

***MAF response*:** The slippage survey looked at both offshore and onshore managed systems. The results showed no overall difference in slippage rates between onshore and offshore inspected break-bulk vehicles (page 33 of the risk analysis), although there are many differences between individual facilities, which will influence slippage.

The slippage survey reports were cited in the risk analysis and the details of the model are contained in the survey report.

4.6.1.25 'No actual study has been made by BNZ on the actuality of risks associated with contaminants found in air-filters, and yet the recommendation is to replace or clean all air-filters found in this vehicle category. KCC states that it has, at its own cost, determined to produce irrefutable proof (either positive or negative), of the actual risk. This is by undertaking a controlled study (with Mr Kleinpaste) using actual seeds found in used vehicle air-filters. The results of this study will of course be shared with MAF and BNZ. They state that this is surely a further indication of many conclusions being drawn in the Risk Analysis based on assumptions rather than actual scientific study. KCC notes that it is the only operator in Japan that conducts a year round AGM trapping survey (and reports to MAF NZ), so that accurate and timely flying seasons can be known and communicated. KCC is more than happy to be involved in whatever study(s) can or should be commissioned to take any further guess work out of this Risk Analysis.'

MAF response: The Biosecurity Monitoring Group of BNZ surveyed the air filters of 620 imported used vehicles (excluding machinery) and found 40 percent were contaminated (page 254 of the risk analysis). The risk analysis identifies a number of difficulties in interpreting these data, including viability and identity of seeds. Consequently, no firm conclusions could be drawn on the likelihood of viable seeds entering in the air filters of imported used cars (page 258). For this reason the risk analysis did not recommend mandatory replacement/cleaning of air filters except in the case of machinery. A detailed study on the identity and viability of seeds was identified as a priority for research (risk analysis page 356).

It is rarely possible to provide irrefutable proof when considering biosecurity risk. There will always be uncertainties. It is for this reason that likelihood is assessed and the basis for conclusions, including uncertainties and assumptions are clearly documented in the risk analysis. Peer review was used to check that these assumptions and the rationale for the conclusions are reasonable. Please refer to key statement D. The studies that KCC undertake to clarify elements of the biosecurity risk associated with imported vehicles are appreciated and the data will be useful for decision makers.

4.6.1.26 'There are significant gaps in the information that MAF/BNZ has (frequency/numbers/new vehicles etc) about hitchhiking biosecurity pests. This must make the Risk Analysis' foundation somewhat shaky as it is based on circumstantial brainstorming….The truth is that there is very little hard data and that even when surveys (as recent as 2006) are specifically organized to gather those elusive data they are still not forthcoming. They consider our knowledge and gathered data of Biosecurity risks on vehicles to be *so* poor that assigning risk descriptors is not meaningful; so the authors make do with a blunt and often subjective guesswork instrument: "negligible" and "non-negligible" (p 13).

***MAF response*:** Please refer to response above and to key statement D. The term "negligible" is defined in the risk analysis as meaning so small or insignificant as not to be worth considering. It is used in preference to descriptors such as high, medium or low which often mean different things to different readers. The analysis describes the risk factors, which gives the reader a more accurate understanding of the issues than a single word.

4.6.1.27 'The common remark throughout the Risk Analysis is that the frequency of Biosecurity pests on used vehicles is very, very low. That this fact could be seen as encouraging for our efforts to keep them out of our country is obviously lost on the authors.'

MAF response: Please refer to key statement B. Please also note that the likelihood of entry and establishment of potential hazards is assessed on the basis of no risk mitigation measures on the pathway (risk analysis page 14).

4.6.1.28 The submitter states that one of the more important and positive statements in the Risk Analysis is clarification of contaminants that are not considered to be a biosecurity hazard on this pathway (p 351).

MAF response: Submission noted.

4.6.1.29 Mr. Kleinpaste states 'the Import Risk Analysis for Vehicles and Machinery is a large and impressive document that deals with an extraordinary large variety of so-called *Hazard Groups*, associated with the imported vehicle and machinery trade. The irony is that, in the absence of significant (hard) data (this is stated, throughout the document, with almost suicide-inducing repetition), most of the arguments in this Risk Analysis are based on best guesses and circumstantial evidence, badly kept interception records, many non-identifications and even mis-identifications. A healthy dose of serious paranoia propels the hypotheses into orbit, shifting the idea of *managing* risks into the realm of *eliminating* or *annihilating* risks.

4.6.1.30 Yet, despite all this, the Risk Analysis makes a lot of good points and is well structured and well written.'

***MAF response*:** Please refer to response above, and to key statement E regarding the risk management objective.

4.6.1.31 **'The whole process of Risk Analysis has followed the modern path of stakeholders input. Indeed, as mentioned under *Risk Communication* (p 15), stakeholder meetings were conducted in a few key places. He is concerned that there is no mention at all about the feedback gathered at those meetings and how much of that feedback has been incorporated in the Risk Analysis. Mandatory heat-treatment was one of the biggest concerns flagged by stakeholders, yet this was not mentioned in the Risk Analysis. This is especially pertinent in view of the fact that BNZ made some semi-public statements (well before the Risk Analysis process was finalised) that heat treatment may well be the annihilation method of choice. In a thinly veiled attempt to offer the stakeholders "an alternative" to heat treatment, MeBr fumigation is mooted as another form of risk *annihilation*. This can only be seen as silly and unfortunate, especially in the light of the current debate surrounding global warming.**'

***MAF response*:** Please refer to key statements E in relation to the risk management objective and K in relation to methyl bromide. The purpose of the risk analysis was to assess the biological risk posed by this pathway, and the feedback from stakeholders regarding implementation issues will be considered in detail in the next stages of the review of the import health standards.

4.6.1.32 'The much discussed *Latrodectus geometricus* find via the videoscope is not only quoted *ad nauseum* in the risk analysis (and in the original BMG videoscope Report) it also seems to be the trump card in the whole argument for risk *annihilation* via heat treatment or MeBr fumigation. Of course, this spider does not occur in Japan and was found in a vehicle ex Singapore.'

MAF response: This result is mentioned on pages 31, 313 and 319 of the risk analysis, in describing the overall results of the survey and in relation to the analysis for spiders. The risk analysis stated that this record was from a vehicle from Singapore, and explained that *Latrodectus geometricus* does occur in Japan (page 310).

4.6.1.33 'There seem to be some glaring anomalies in the Risk Analysis: There's no mention of off-shore inspections in the "preferred version" of Recommended

Measures (chapter 35.1), while this is certainly part of chapter 35.2 (Other Measures considered…).'

***MAF response*:** Neither package of measures specifically addresses whether measures should be applied off-shore or onshore. This issue is addressed in the following section (35.3.2) which applies to both packages of measures. Nonetheless the recommended measures in section 35.1 do not include routine inspection of all vehicles by MAF, because all vehicles would have been vacuumed, pressure washed and treated, whereas the package described in 35.2 does include 100 percent MAF inspection because vehicles are not comprehensively treated.

4.6.1.34 'Ants are important. The number of species that are entering NZ is quite shocking and chances are that the used vehicle pathway could contribute to this. Heat-treatment may not always be efficient in reaching all ants in all parts of the vehicle – like with a microwave oven, ants will select the cool spots, sit still and walk away again. Heat treatment also does not leave a residue: once it's cooled, the threat (from the ant's point of view) is gone.
Visual Inspection: Is likely to pick up a lot of infestations
Vacuum cleaning removes most of the human food residues the ants live on
Residual permethrin deposits on interior surfaces of vehicles and perhaps even on the radiator (to stop access to the dead insect bodies trapped there) is likely to be as good as heat treatment and … will be effective for quite a few months after the vehicle has been "cleared" The idea is to confine the workers and queen to their hiding place and don't allow them to roam away from that site to find food; it also stops them from entering other vehicles, parked next door…'

***MAF response*:** The need to ensure that heat treatment avoids leaving temporal and spatial thermal refuges is recognised in the risk analysis (eg. page 43). This would need to be addressed in implementation through protocols for temperature sensors. Whilst visual inspection undoubtedly detects some ant infestations, as shown by the border interceptions, the results of the videoscope survey, the post border interceptions, and information about their biology indicate that this measure is not sufficient to meet the risk management objective (see pages 72 and 73 of the risk analysis). The risk analysis recognises that vacuum cleaning coupled with visual inspection is likely to be more effective than inspection alone, because it removes food sources (page 73), but post border record of ants in vehicles that have been through steam cleaning, vacuuming and visual inspection, and the known ability of queens of some species to survive without food (see page 64) suggests that there are still limitations with this process. Residual permethrin may be an appropriate mitigation measure for this hazard group, if its efficacy can be demonstrated and it can be applied effectively. Any information that the submitter has in this regard would be welcome.

4.6.1.35 'Around TRS: Baiting and ant control with Chlorpyrifos sprays may indeed reduce the "re-contamination" chances; Ants on the ships: Maybe good idea to take a look at that as well.'

***MAF response*:** Mr. Kleinpaste's support for the use of baits on ship and around facilities in Japan (identified on pages 74 and 75 of the risk analysis) is noted.

4.6.1.36 The submitter notes that new vehicles are hardly less attractive to colonising ants.

MAF response: The risk analysis recognises that ants can enter via new vehicles (page 65) and recommends measures to manage this (page 75).

4.6.1.37 Mr. Kleinpaste submits that bees and wasps 'similar to ants: very important for our ecosystems and economic crops. They can also be quite dangerous from a human health point of view.
<u>Visual Inspection</u> is not always enough, judging from the post-border data; nests are found on a regular basis. Gall wasps are easier to spot on leaves.
<u>Pressure cleaning with water</u> will remove most of the mud nests and other nests of Hymenoptera, but not the hidden ones.
<u>Residual sprays</u> are less effective on this group. It'll control/kill some of the overwintering /sheltering queens, perhaps, but won't always reach inside the nest to kill larvae or adults that are hiding; Wasps/bees usually fly and are therefore not too bothered by residual barriers on surfaces.
Permigas is a very useful option to disinsect inside bumpers and hollow areas of chassis /frame.'

MAF response: The efficacy of risk management measures was not assessed for this hazard group in the risk analysis because it was assumed that risk management measures recommended for ants and spiders would also be effective against bees and wasps. This notwithstanding, the limitations of visual inspection are acknowledged in the risk analysis (page 87). MAF notes the view in the submission that the efficacy of residual sprays is likely to be lower for this hazard group.

4.6.1.38 'New cars are just as likely to have nests as used vehicles! It's a matter of time on the TRS…'

MAF response: The risk analysis recognised that bees and wasps can enter via the new vehicle pathway (page 87).

4.6.1.39 'Adult beetles are not really a big "potential hazard" on used *or* new vehicles; their presence in cars (apart from the stored products pests) is totally accidental and not associated with cars at all… The chances of surviving a journey on or inside a vehicle are slim; finding a mating partner on arrival in New Zealand may represent even higher odds.
<u>Residual insecticide</u> treatments will deal to them inside the vehicles.
Stored products pests are basically cosmopolitan and most species are established in NZ.'

MAF response: The risk analysis stated that most adult beetles are unlikely to survive shipment without a food supply and that viable life-forms are most likely to be associated with other contamination of vehicles such as soil, wood, plant material or food (pages 92 and 96). The efficacy of risk management measures was not assessed for this hazard group in the risk analysis because it was assumed that risk management measures recommended for these other contaminants and for dermestid beetles would also be effective against non-dermestid beetles (page 96). Nonetheless, MAF would welcome any efficacy information and treatment details the submitter may have in relation to residual insecticide for this group.

4.6.1.40 'True Bugs (Hemiptera) – these days split into Homoptera and Heteroptera!

Really, this is a non-event group. Most true Bug adults will have a great difficulty surviving without their host plants (unless they are skilled at diapause). In that case some Residual insecticide (permethrin) will deal to them quick smart!

4.6.1.41 Larvae or nymphs of Heteroptera have usually no hope of surviving without their host plants, so removal of leaves and debris is of importance to stop them. The only group we should be worried about is the scales and mealybugs on relatively *fresh* plant material. Of course, Visual Inspection and Pressure Cleaning will remove those leaves.'

MAF response: The risk analysis recognises the traditional distinction between Homoptera and Heteroptera (page 100). It concluded that 'given the sap/blood feeding requirements of most Hemiptera, they would need to be associated with fresh plant/ animal material of sufficient size to desiccate during shipment. There is little evidence of contamination of the pathway with fresh plant or animal material and the likelihood of adults or nymphs surviving shipment to New Zealand is low unless there are diapausing life stages. Entry is more likely on vehicles imported from Australia for which the journey time is much shorter' (page 104). Hemiptera undergo incomplete metamorphosis with nymphs hatching from the eggs, so there is no need to be concerned about larvae. The efficacy of risk management measures was not assessed for this hazard group in the risk analysis because it was assumed that risk management measures recommended for plant debris would also be effective against phytophagous Hemiptera and measures recommended for spiders would be effective against reduviid bugs (page 105).

4.6.1.42 Mr. Kleinpaste submits that new vehicles are just as likely to "collect" fresh leaves as used vehicles!

***MAF response*:** As discussed above the likelihood of contamination of vehicles with sufficient quantities of fresh material to enable Hemiptera to survive shipment, is considered to be very low, and while it might be argued that this likelihood is not different for new vehicles and used vehicles, this would have no effect on the recommendations of the risk analysis. The risk analysis noted that other pathways, particularly nursery stock and fresh produce are likely to be more important pathways for entry of this group (page 105).

4.6.1.43 'Moths is one of the major Orders where it's all about, especially the moths that lay their eggs on car tyres and inside the rims: AGM (and *perhaps* some related species) in other words.

4.6.1.44 We've done them to death and we know more or less what we are battling here… It would have been nice to see some form of analysis of interception records (or slippage surveys) comparing pre-cleaned and inspected vehicles off shore and vehicles that come in as "red" units or even as *new* vehicles.'

4.6.1.45 'It's still not clear what the role of vehicles is as a pupation site for some species – evidence is really lacking, especially as exactly the same assumptions can be made for the container pathway! The 2 records of dead larvae and one egg mass on a tyre (misidentification???) of fall webworm in 12 years of inspecting, doesn't strike as a huge amount of evidence.'

MAF response: MAF has undertaken a detailed pest risk analysis for several high consequence moth species including fall webworm, and the conclusions are summarised in the vehicle and machinery import risk analysis. The identifications described in the analysis were undertaken

by Dr. Karen Armstrong at Lincoln University using DNA testing. They are the **only** border interception records for this species. The fact that they have not been intercepted more frequently is a key point, considering the post border interceptions that have occurred. It suggests that these moths are crossing the border more frequently than they are being detected. Coupled with the indications that the pupal stage, which is small and camouflaged is the most likely to enter, this indicates that detection is difficult. The fact that they have only been detected on vehicles at the border does not prove that a vehicle was the source of the incursion, and the risk analysis states that it is not known which pathway was responsible. Larvae actively seek out protected sites in which to pupate on a variety of substrates. The distance a larva will crawl to a suitable protected pupation site is not known, but it is assumed that it will be similar to the distance they crawl to feed, which is less than 40 metres. For a vehicle, or a container to be infested therefore, it would need to be stored within about 40 metres of an infested host plant. Both pathways have been identified as likely pathways for entry. The likelihood of establishment via vehicles is higher than for sea containers, because of the distribution of vehicles on arrival in New Zealand. A population of fall webworm that establishes from vehicle imports is more likely to establish away from areas with active surveillance in place and therefore less likely to be detected while it is still possible to eradicate it.

The risk analysis identifies a number of high consequence moths other than Asian gypsy moth with an association with vehicles.

4.6.1.46 'Pressure cleaning appears to remove a significant amount of contamination (no finds in slippage survey)
Visual inspection will also take out most of the AGM eggs and other Lymantriids.
Residual Sprays: Live individuals *inside* a vehicle are easily dispatched with residual insecticides. The same materials, sprayed on the *outside* or *underside* will discourage moths from laying eggs on "greened" vehicles during the flight season;
Pheromone Trapping is a handy tool to identify flight seasons and – at the same time – keeps an eye on species other than AGM at TRS facilities.'

***MAF response*:** As discussed above, the videoscope and slippage surveys were designed to be snapshots, not to provide definitive rates of slippage for individual organisms. Given the sample size, the slippage survey, which relied on unaided visual inspection, had a 95 percent chance of detecting visible contamination affecting 1 in 182 imported used vehicles (see page 33). Lymantriid egg masses and other high consequence organisms such as fall webworm occur less frequently than this.

4.6.1.47 "The emphasis placed on that little moth, *Artona martini* is quite over the top. The one pupa ever found inside the car is believed to be evidence for its mode-of-arrival in New Zealand, despite regular plant imports ("Lucky bamboo"?) over the past decade. Besides, is there no find of such a pupa inside or on the outside of a container? It damages bamboo, for crying out loud… *Bamboo*!!! One of the worst weeds in Aotearoa."

***MAF response*:** *Artona martini* is briefly discussed in the risk analysis as an example of the Zygaenidae which has recently established in New Zealand. It is not classified as a high consequence hazard. The risk analysis clearly states "the method of arrival is unknown" (page 115). Incidentally there are no records of the species from containers, although this does

not mean that it can not be associated with containers. However "lucky bamboo" is a *Dracaena* not a "bamboo", so it is not particularly likely to have been the entry pathway.

4.6.1.48 'When accepting the Risk Analysis' arguments for Lepidoptera contamination, *new* vehicles would surely also be in the gun for pupae and eggs… But the ubiquitous suggestion (p. 131) of "Systems approach to the management of imported new vehicles, incorporating surveillance and appropriate storage yard maintenance measures…" is probably one of the weakest attempts to keep the new vehicles' reputation intact!'

MAF response: The risk analysis concluded that moths, including the example species assessed in detail, may enter New Zealand via the new vehicle pathway (page 120). Please also refer to key statement H.

4.6.1.49 'Most moth species found (table 1, p. 107) are either lone adults, trapped inside a car, or egg masses of important species that are currently targeted.'

MAF response: The risk analysis explained that table 1 and the interception records for organisms in other hazard groups only provide an indication of an association between an organism and the vehicle pathway. Please refer to key statement C.

4.6.1.50 In relation to dermestid beetles, Mr. Kleinpaste submits that in view of recent detailed identifications ex Japan, it is still unclear if *Trogoderma* is a regular occurrence inside used vehicles. Carpet beetles seem to be the more common dermestid found. He indicates that vacuum-cleaning will remove the larva's food source and give them a hard time to finish their development.

MAF response: The risk analysis concluded that the high consequence *T. granarium* is likely to enter only via a subsection of the vehicle pathway, namely trucks and agricultural machinery that have been used for transporting stored products (page 160). The efficacy of vacuuming to remove all dermestid life stages is not known (page 161). Larvae can hide in crevices away from food sources and can survive more than a year in conditions of facultative diapause (page 156), which would be long enough for the vehicle to gain a new supply of larval food, after pre-clearance vacuuming.

4.6.1.51 The submitter indicates that residual insecticides have hardly been tried for this group '(they are so rare!!!), but are certainly worth an investigation with that long-lasting permethrin (Eradicoat). Because even when the larvae or pupae survive a long diapause, upon emergence their environment inside the vehicle will contain residues of the insecticide. There is no suggestion in literature that *Trogoderma* and associated exotic genera are showing any resistance to residual synthetic pyrethroids.'

MAF response: Dermestid beetles are reported to have innate resistance to many pesticides (see for instance review in Lindgren, D L; Vincent, L E; Krohne, H E (1955) The Khapra Beetle *Trogoderma granarium* Everts. Hilgardia 24 1-36). Whilst fumigants are generally less likely to result in acquired resistance, because they do not have residual effects and hence there are fewer opportunities for sub-lethal doses, there is evidence of phosphine resistant strains developing (eg. Bell, C H; Hole, B D; Wilson, S M (1985) Fumigant doses for the control of *Trogoderma granarium*. EPPO Bulletin 15 9-14).

4.6.1.52 'Mantid egg cases are usually quite conspicuous and easily blasted off with pressure cleaning.
Residual insecticide deposits are very effective on recently emerged nymphs.'

MAF response: Submission noted. The number of live post-border interceptions of mantid live stages that were not detected at the border is noteworthy (page 179 of the risk analysis).

4.6.1.53 'The immortal line on page 196 says it all: 'There is little information on the viability of micro-organisms associated with contaminants, particularly plant material from imported vehicles.' No doubt, some of the fresher materials could harbour exotic life forms.' Visual inspection will usually detect the offending leaves etc. *New* vehicles collect just as much leaf material as used vehicles! However, dried substrates, especially those from engine bays and inside air filters (hostile environments) are unlikely to be a great threat at all. Of course in out-of-the-way places, contaminants may be hidden from view; but does this mean that these contaminants suddenly liberate themselves, as soon as the vehicle lands in New Zealand?'

***MAF response*:** The risk analysis concluded that soil and plant material found on the radiator, exhaust and wheel brakes are not considered to be hazards (page 213). It also assumed that any micro-organisms associated with non-visible soil, animal and plant material inside the structure of a vehicle will not leave the vehicle in a location in which they would be able to establish in New Zealand and such material is therefore not considered a hazard.

4.6.1.54 'The mandatory replacement or cleaning of air filters on agricultural and forestry machinery appears somewhat premature, as no one has ever looked at these filters in great detail. This would be a great candidate for inclusion into chapter 20.8 (Uncertainties/Assumptions Summary).' The recommendation to replace air filters on machinery is not based on data at all! He states that the few that were opened, last autumn, showed to be remarkably clean. They may be positioned higher than in cars?

***MAF response*:** This area of uncertainty has been highlighted in sections 20.8 and 35.6 of the risk analysis as a priority for research. The concern over filters in machinery relates to fungal spores, not just seeds, and the recommendations on page 353 are clearly stated as an interim package that should be reviewed once the results of the videoscope survey of machinery are available.

4.6.1.55 Mosquitoes are 'another one of those serious Orders of Insects that seem to pop up from time to time. No doubt the water-holding capacity of vehicles is of importance here, since adults are unlikely to make a long journey in a dry and warm vehicle for many weeks. Even if they did, a minute residual deposit of permethrin will be lethal.

4.6.1.56 Controlling mosquito larvae and pupae with permethrin could be tricky, especially since permethrin *per se* does not last long when exposed to UV light. Perhaps this can be explored a bit further to come up with suitable insecticidal materials.'

***MAF response*:** The risk analysis identified that the egg and larval stages are the most likely mosquito stages to enter and that these will be associated with water-holding cavities (see page 230). The issue of degradation of synthetic pyrethroids with UV is discussed on page 236 of the risk analysis.

4.6.1.57 'The suggested 400 meter exclusion zone at the ports of arrival is an old WHO recommendation pertaining to airports *and shipping ports* (International Health Regulations – Article 19) and was highlighted as one of the key issues in the Ministry of Health's Report to the Minister for Biosecurity in 1997 (Exclusion and Control of Exotic Mosquitoes of Public Health Significance). He suggests that in the light of recent finds at the Ports of Auckland, it has either become one of those "forgotten tasks" or it is simply not working at all…'

***MAF response*:** We note that the mosquito exclusion zone is not within MAF's jurisdiction.

4.6.1.58 'The incredibly long list of seeds retrieved from used vehicles is impressive, but the identifications are poor, to say the least. Tables 1 and 2 showed no hard numerical data and the viability of the seeds has rarely been tested (the Tetrazolium tests mean very little in the ecological world) and viability figures appear to be low. Interestingly, "Most of the seeds found to be viable were of species already established in New Zealand" (p. 252).'

***MAF response*:** The tables can not be used to quantify likelihood of entry (page 251of the risk analysis). Page 252 indicates that most seeds were not able to be identified to species level and since the species that are not present in New Zealand are less readily identified, the indication that most of the seeds found to be viable were of species already established in New Zealand may be misleading. The limitations around the seed viability and identity information were acknowledged, and this is identified as a priority for research (pages 266 and 356). The tetrazolium test for viability was used in addition to straight forward germination tests. This is because many seeds have prolonged dormancy capacity, with special requirements for germination. Thus a failure to germinate may be a reflection of dormancy rather than of viability. Page 247 of the risk analysis explained that if a seed is viable hydrogen ions produced by respiration will result in a change in colour of the 2,3, 5 triphenyl trizolium chloride test solution, indicating viability even in the absence of germination.

4.6.1.59 'Table 3 (p.254) in relation to air filters contributes nothing to our knowledge of contamination levels; no percentages are offered, no totals of vehicles inspected etc. and the term "Live arthropods" means very little without identification. Interestingly when BMG tested viability (the chemical way) of seeds found in air filters, it appeared that viability was lower than in seeds found elsewhere on the vehicle. In view of the fact that the data were obtained after modelling we may not necessarily attach a great deal of value to these data.'

MAF response: The text immediately preceding Table 3 (p. 254 of the risk analysis) explains that 620 vehicles were surveyed and of these 40 percent were contaminated. The indication of lower viability of seeds in air filters compared to those found elsewhere in vehicles was discussed on page 257.

4.6.1.60 'Recent planting of all seeds found in air filters of used Japanese vehicles from Funabashi and Nagoya shows an overwhelming numerical dominance of

Asteraceae and Poaceae. It also shows a viability of 2.3 percent to date. This seems to back up the Conclusion on Establishment assessment: non-negligible but *lower* than for some other hazard groups.

***MAF response*:** Submission noted. MAF would be interested in these results.

4.6.1.61 "The recommended procedures for new vehicles "Systems approach incorporating surveillance, appropriate storage yard maintenance measures and decontamination where necessary…" is quite ridiculous. Is there no visual inspection needed for seeds, lodged in windscreen wipers etc? What is *actually* meant by surveillance… *inspection*?'

***MAF response*:** Please refer to key statement H.

4.6.1.62 'There doesn't appear to be too many lizards and snakes in vehicles from Japan: two live records of gecko in all interceptions (*Hemidactylus frenatus*) and one live snake (*Elaphe quadrivirgata*). The rest were all dead. He states that n*ew* vehicles are almost just as prone to having Squamata on board – so why only "Systems approach"?'

MAF response: It is acknowledged that there are few interception records of lizards and snakes from Japan. Please refer to key statements H regarding new vehicles and C regarding interception records.

4.6.1.63 'The number of interceptions of snails is really not that high; they are generally large specimens and hence detectable through visual inspection. He suggests that none were seen during the video-scope survey (probably because they were blasted off by pressure wash?). He considers that pressure cleaning will likely take most of them off their substrate and the sudden increase in relative humidity may make snails dissolve their mucus membrane and wander off.
He asks if visual inspection is recommended for used vehicles, why not for *new* vehicles? Snails are not too fussed about which car they slither up to. This "systems approach" is starting to sound a wee bit tiresome!'

MAF response: Please refer to key statement C regarding interception records. The uncertainties around visual inspection and pressure washing in managing this group of organisms are discussed on page 296 of the risk analysis. Risk management measures are recommended for new vehicles, please refer to page 297 of the risk analysis and also key statement H in section 3 of this document.

4.6.1.64 'Anybody who has ever owned a car, will be aware of that clever little spider, that lives around the rear-vision mirror, or near the indicator light, grille, number plate light (etc.). Web building is the very first give-away of the existence of such a hitchhiker.
Indeed, some of these web-builders can retreat inside a nook or cranny and remain almost invisible, but the web will *always* be visible from the outside… How else would that spider be able to catch prey and feed itself?
Non web-builders are bit more difficult to spot, as they simply leave very little trace indeed. Sparassids are a good example of such "foot hunters". (And their bites are very minor indeed and certainly not causing "social impacts").'

***MAF response*:** The relationship between the presence of spider webs in a vehicle and the presence of viable spiders or egg masses is discussed on pages 318 and 320 of the risk analysis. The analysis concluded that fresh webs should be treated as an indicator of biosecurity contaminant, but noted that spiders in the Salticidae and Lycosidae do not build webs. The sparassids are not the subject of detailed assessment in the risk analysis and they are not classified as high consequence hazards. Nonetheless, establishment of relatively large and very fast moving 'huntsman spiders' in New Zealand could result in social and cultural impacts, arising from arachnophobia (fear of spiders), one of the most widespread forms of specific phobia, as discussed in the risk analysis (pages 307 and 316).

4.6.1.65 'Visual inspection is the start of the process, with every fresh strand of silk requiring treatment: residual insecticides such as permethrin will not only kill the offending spider, but also remain a barrier for web extension, hinder food gathering (necessitating vacation of the hiding places!), physical movement away from the residence and dispersal by larvae.
Contrary to the statements in the Risk Analysis, crepuscular spiders *can* be treated with residual insecticides: Permigas was initially developed as a semi-gaseous CO_2 driven permethrin fog that can be injected, with sufficient force, into enclosed areas where invertebrates may dwell or hide (door cavities, bumper cavities, "inaccessible" wheel wells etc.). '

MAF response: MAF is not aware of efficacy data relating to permethrin fog on Latrodectus spiders, but would welcome any that MR. Kleinpaste has. The relevance of crepuscular behaviour to the efficacy of treatments is unclear.

4.6.1.66 'The discovery of *Latrodectus geometricus* widow and egg sac is intriguing: it is very hard to ferret out any detailed data on its find (what kind of vehicle, *where* on the vehicle, etc) and country of origin (Singapore?). Even the original video-scope report (BMG/05-06/06) has no reference number for it (Table A3.2). Does the specimen actually exist? Is it preserved? Were the eggs in the egg sac viable? Did they, in fact, *hatch*? … Or could it be that this particular specimen was discovered *without* the use of the video-scope and simply by using Visual Inspection? This video-scope report has some very anomalous tables, i.e.: the data presented in table A3.2 bear no resemblance to the spider finds in the main Appendix 2. If the current Risk Analysis is based on facts from that video-scope report, we should all fear for the level of accuracy.'

MAF response: The risk analysis states that the *Latrodectus geometricus* widow and egg sac reported in the videoscope survey was found in a vehicle from Singapore (page 31), as does the videoscope report. This specimen was sent to the labs for identification and the specimen has been retained. The reference number is 76. This should have been included in table A3.2 of the videoscope report. This number enables cross reference with the tables in Appendices 1 and 2 which identifies the vehicle in which it was found, the location (inside the bumper) and that it was not detectable through visual inspection.

4.6.1.67 'Establishment of *Latrodectus* species has shown that, despite numerous cases of introduction of gravid females (weekly detections of black widows in USA grapes in the 1990-s; regular discoveries of one-off populations of red-backs, etc) the widow family seems to be struggling to get a foothold in Aotearoa.'

***MAF response*:** Only small numbers of black widow spiders were detected on imported grapes each season during the 1990s. The peak of detections occurred in 2000-2001 when nine were found over a period of 15 months. Most of these were female, but their reproductive state was unknown. These interceptions resulted in a risk analysis and tighter measures on the pathway. This illustrates the role of risk analysis in recommending risk management measures to mitigate identified risks.

4.6.1.68 'New vehicles can obviously be managed by "systems approach"… This presumably means that spiders are not willing to balloon to new vehicles or colonise them when they are still gleaming?'

***MAF response*:** Please refer to key statement H.

4.6.1.69 'The Risk Analysis adopts the creative term (invented by the Biosecurity Monitoring Group) of *Risk Units* (p 35). It is a system that attempts to quantify contaminants (without actual data) and compare pathways of introduction. Not surprisingly the vehicle pathway is declared the most dangerous one, compared to Air Passengers, Baggage and International Mail. He quotes "There are a large variety of pest organisms known to be associated with vehicles and machinery" (p 2) and concludes 'Yes indeed, especially if you include all countries of the world as points of origin'. Now, if we were in a position to compare the risky vehicle pathway to the risky container pathway (from all countries in the World) containers may well come out with the largest variety of pests, despite their easy, six-sided nature.
"Several of the species assessed in this Risk Analysis have also been intercepted from sea containers" (p 16).'

MAF response: The scope of this risk analysis is restricted to imported vehicles and machinery. It would be unwieldy to attempt to cover the risks from all hitchhikers on all pathways. Nonetheless, as discussed above, the main differences between some of the pathways from a biosecurity risk perspective are addressed on page 16 of the risk analysis, as well as in individual chapters where relevant information is available (see for instance pages 62 119 and 275). These include the greater complexity of vehicle structure, the unknown history of use and storage of imported vehicle, the length of time that imported vehicles and machinery remain in New Zealand and their ability to be distributed throughout NZ beyond the reach of formal surveillance programmes. The purpose of the Risk Units system and the limitations of this concept for the purpose of analysing the risk posed by a single pathway is discussed on page 35 of the risk analysis.

4.6.1.70 'Huge assumptions and scurrilous allegations *without evidence* put a number of serious biosecurity incursions in the lap of the used vehicle industry (i.e. Painted Apple Moth p 356 *selection of pupation sites??*), Fall Webworm, White-spotted tussock moth p 16 etc.)'

***MAF response*:** Please refer to key statement A regarding links between incursions and pathways. For some organisms, used vehicles are considered to be more likely than other pathways to have been to route of introduction into New Zealand. However, it is made clear in many places in the risk assessment, that the actual pathway responsible for introductions is almost always unknown.

4.6.1.71 'The constant use of the (emotive) terms "Wide range/many *contaminants*" gives the reader the feeling that used vehicles are absolutely buzzing with unwanted insects and rustling with mean, dead, dried old leaves full of wide-awake fungi and bacteria, ready to jump to life, the moment the cars are driven onto the wharf.'

MAF response: The term contamination is defined in the glossary. It is used to distinguish organisms whose risk has not been assessed from those which have. The latter are termed 'hazards'

4.6.1.72 'Import Health Standards are usually more effective if they cover risk commodities from a certain region or one country of origin, *not* the whole globe. The number of risk pests to cover from the main origin (Japan) is comparatively small and the target species are better known. It may be prudent to separate the countries of origin and draft a number of IHS versions. Ironically, some suggestions in the Risk Analysis seem to support this line of thinking: a good example is the fact that containerised vehicles ex USA are recommended for mandatory fumigation (p 5) and that Australian vehicles have been found to be the dirtiest (p 38). Also, on p 14 there's an indication that there is some focus on this issue: "the conclusion of this risk analysis may need to be re-assessed, should the main vehicle exporting countries change…." etc.'

***MAF response*:** Please refer to earlier response regarding the scope of the risk analysis.

4.6.1.73 'This Risk Analysis appears to not want to *manage* risks associated with vehicle imports, but to *annihilate* those risks as much as possible, by using MeBr and expensive, high-energy consumptive measures (heat treatment) as "blanket treatments". Not all targets will be killed by these measures, so additional techniques are proposed for those organisms that are not affected by heat or MeBr. Although the Risk Analysis states that "zero-risk is not a viable option", it appears as if that is, in fact, the target outcome.'

***MAF response*:** Please refer to key statement E regarding the risk management objective.

4.6.1.74 'The Main Recommendation (35.1) on p 342 never mentions any inspections in Japan at all. Instead it focuses on catchall techniques of MeBr and heat, complemented by vacuum cleaning and pressure wash, improved facility specifications and treatment of potential larval mosquito habitats in dented wrecks.
Chapter 35.2 (p 346), "Other measures considered for used vehicles" has the feeling of a *second tier recommendation* and resembles a "status quo *plus*", with inspections and treatments in Japan, improved facilities all over the world, backed up by an LTNZ inspection on arrival, plus extra measures against mosquitoes and fresh spider webs. These measures are not recommended in the Risk Analysis, yet they would fit best with the current regime of offshore quarantine. It may come as no surprise that a number of operators in Japan would favour exactly this type of treatment system, over the mandatory "heat 'n gas" scenario.'

***MAF response*:** Submission noted.

4.6.1.75 A clue as to why inspections are not featuring in the main recommendation on p 342 can be found on p 30. In 2003 MAF set an inspection target of 97 percent efficacy (detection) and so far (according to all the audits) has consistently failed to meet that target. (Note, however that that 97 percent figure was – as can be expected - not arrived at on the basis of a risk analysis). He states that what is suggested in this Risk Analysis is that LTNZ inspectors in NZ are to be improved with knowledge of invertebrates and other biota plus "an understanding of the importance of Biosecurity" (p 39); in other words we will be relying on the eyes, ears and knowledge of laypersons for our Biosecurity. Sounds like training the "container cat" again!'

***MAF response*:** Submission noted. Chapter 4 of the risk analysis, including page 39 provides a discussion of possible risk management measures – it is not a list of recommended measures. Bringing the LTNZ compliance centres into the formal biosecurity regime is not included in the recommended package of measures (section 35.1). It is however, included as a 'backstop' in the alternative package of measures (section 35.2) which is not considered likely to reduce the likelihood of entry and establishment of high consequence hazards to a negligible level, but is supported by the submitter (see above). Please refer to key statement E regarding the 97 percent target.

4.6.1.76 'Used (and new) Machinery/Buses/Trucks are certainly viewed with a great deal of suspicion and are getting extra attention, both in the form of certain proposed mandatory treatments and through much more thorough inspection by specially-trained MAF Quarantine Officers ("trained in inspection of complex machinery"). Inspections are in this case seen as an important tool – why not on used and new cars?'

***MAF response*:** An important difference between machinery and passenger vehicles is the greater variety in types and complexity of construction of machinery. Thus, whilst pressure washing and vacuuming of a passenger vehicle is relatively straightforward for a decontamination provider, it is less likely to be for machinery.

4.6.1.77 'A "slippage survey" by the BMG found that 40 percent of all air filters had contamination. He states that the air filters on used machinery (etc) must be a lot dirtier than those on cars, seeing they need to be either cleaned or replaced – Are they indeed much more dirty? Do they have more seeds and contaminations in them? Did BMG look at that?'

***MAF response*:** The air filter survey did not include machinery. The package of measures recommended for machinery are identified as interim in the risk analysis (page 353) pending the results of the current survey.

4.6.1.78 Mr. Kleinpaste submits that the reader gets the uncomfortable feeling that the timing of this document is premature for the following reasons:

- **The economic and social costs associated with the proposed treatments are known for MeBr but not for heat treatment; a cost-benefit analysis is commissioned on an ad-hoc basis. Luckily, compliance costs for used vehicles have (so far) been at the lower end of the spectrum of all Biosecurity compliance**

costs for imported commodities, so presumably that indicates that the Industry can take a bit of a larger *hit.*

- **Many operators in the Industry believe that heat treatment is an option that will not only use an extraordinary amount of energy, but will also be cost-prohibitive.**
- **Efficacy data on residual insecticides are still to be gathered – these materials could change the outcome of the Risk Analysis and sneak into the recommended procedures.**
- **Air filter analysis and viability studies of the seeds found in air filters are still progressing in Japan.**
- **Surveys on new vehicles are yet to be carried out.**

MAF response: Please refer to key statements D and L.

4.6.1.79 'The "Brilliant Alternative" for importers or carriers (that don't believe in Ozone-depleting gases and refuse to invest in heat treatment units) is *On-arrival* disinfestation. Unfortunately, the 12 hour inspection deadline after arriving in New Zealand is not an easy deadline to meet. There are already struggles with numbers of non pre-cleared cars and space on the wharf. He notes that the Risk Analysis points out that there are risks in transporting potentially dirty vehicles from wharf to authorised/audited decontamination site… contaminants could *escape*.'

MAF response: Please refer to key statement I.

4.6.1.80 'As with so many different pathways, BNZ is not an organisation that can just act as a "Biosecurity Police" to the Imported Vehicle Industry. There has to be some form of dialogue and cooperation if we are to effectively work towards a sensible Biosecurity risk *management.* Within the Industry, some participants are quite willing to initiate and fund bits of research to increase our knowledge of the Biosecurity threats and the methods to combat these organisms; this is the kind of "partnership" that should be welcomed by BNZ, but it is hardly acknowledged in this document.
With the imminent demise of the MAF Quarantine Service comes the realisation that when considering our thin green line at the Border, those very Quarantine Officers are the best we have to protect Aotearoa. We may as well use them as best we can in the Imported Vehicle pathway.'

MAF response: Submission noted. We welcome your willingness to be more involved in managing biosecurity risk associated with imported vehicles. Improving the effectiveness and efficiency of pre-border and border interventions requires the involvement of much more than central government and we are keen to work with industry to reach a better outcome.

4.6.2 Navix Line, NZ, Blain Paterson, Manager

4.6.2.1 'Closing down the pathway is not an option (as stated in section 4.1 of the risk analysis) and therefore creating "risk analysis" that is impossible to implement would in essence be another way a closing down the pathway.'

4.6.2.2 Heat treatment will be effective but will have major logistical problems if the used vehicles have to be heat treated at the New Zealand port after discharge from the import vessels. This is because:

- **'Used vehicles could only be treated at the port of entry in New Zealand**
- **Time factor of treating each imported vehicle at the New Zealand border**
- **The inability of any New Zealand port to function properly if required to heat treat every vehicle. (Backing up of vessels waiting to discharge vehicles)**
- **Available space for this type of treatment to take place at the wharf.**
- **Extra cost to be added to the price of used vehicles imported to New Zealand.'**

4.6.2.3 The submitter contends that fumigation on a total shipment basis (all vehicles onboard a ship) would have major environmental restrictions:

- **Methyl bromide effects on humans**
- **Large use and detrimental effects to the atmosphere**

MAF response: *Submission* noted. Please refer to key statements J and K.

4.6.2.4 'Presently MAF officers conduct a 100 percent check on used vehicles entering New Zealand. These checks are carried out at off shore facilities (Port of Origin) and at the port of destination (New Zealand Border control) but in all circumstances every vehicle is checked for contamination. This system has proved effective but is not at the 97 percent efficacy of the proposed NEW health standard being discussed.'

***MAF response*:** The evidence reviewed in the risk analysis indicates that the current system is not effective in meeting the risk management objective of reducing the likelihood of entry and establishment of high consequence hazards to a negligible level. It should be noted that the current (not proposed) target for used vehicles is 97 percent free from biosecurity contamination. Please refer to key statement E regarding the risk management objective.

4.6.2.5 'We are the NZ appointed agents for the Toyofuji Shipping Line and as such we have a concerned interest of the importation of used vehicles into New Zealand. But also share your view of maintaining the best possible protection for the detection of foreign pests from contaminating our environment.
If the NEW health standard cannot be raised to 97 percent efficacy because of logistical problems we are hopeful of Biosecurity New Zealand adopting a system that improves on current practises but does not close or restrict the importation of used vehicle pathway.'

***MAF response*:** Submission noted, see also response above.

4.7 RESEARCH INSTITUTES

4.7.1 Ensis Forest Biosecurity and Protection Unit, Dr. Brian Richardson

4.7.1.1 'The project team has done an excellent job in describing the overall risk pathway and presenting risk management measures. Ensis believes the risk analysis is fair but raises real concerns around some of the processes. Examples of these concerns

include not identifying dead interceptions, only identifying to order, some of the findings of surveys carried out to test the efficacy of inspections in Japan, etc.'

MAF response: Submission noted.

4.7.1.2 The submission makes specific comments on selected sections of the document where members of the Unit have expertise.

4.7.1.3 Chapters 3 and 4 seem to have been adequately covered with good evaluation of the holes in the current inspection system.

***MAF response*:** Submission noted.

4.7.1.4 Chapter 7, Beetles, Page 89. 'There are about 150 families of Coleoptera. The number 330 000 refers to the number of described species. The total number of species will undoubtedly exceed 1 million, perhaps several million according to some.'

MAF response: Submission noted. The risk analysis recognised that the number of described species changes annually. The figures were included in section 7.1.2 to give an indication of the scale and diversity of this group of organisms. The exact number does not affect the conclusions or recommendations of the risk analysis.

4.7.1.5 'Page 90.*Zorion castum* is a junior synonym of *Zorion guttigerum*.'

MAF response: Noted. Table 1 reflects the taxonomy recorded in the interceptions database.

4.7.1.6 'Page 91. *Syndesus cornutus* is found in New Zealand. First record Gisborne, 1961.'

MAF response: Submission noted. It is not listed in the source cited, but MAF recognises it is present. This species is not assessed in detail and the status does not affect the conclusions or recommendations of the risk analysis.

4.7.1.7 'Page 91. Platypodidae. I note else where that the Family Lyctidae is treated as a subfamily of Bostrychidae. To be consistent the Platypodidae should be treated as a subfamily of the Curculionidae; as should the Scolytidae.'

***MAF response*:** Noted. Table 1 reflects the taxonomy recorded in the interceptions database.

4.7.1.8 In relation to the number of species in the different families (page 93), the submitter suggests that it should be stated that these numbers are approximate and refer to the number of described species. 11 000 species in the Anobiidae seems way too high; The submitter has not checked but estimates perhaps about a 1000 species would be closer to the mark. There are more than 500 species of bostrychids.

***MAF response*:** Noted. The risk analysis recognised that the number of described species changes annually. The figures were included to give an indication of the scale of each family. The exact number does not affect the conclusions or recommendations of the risk analysis. It is

acknowledged that the cited reference puts the number of species in the Anobiidae as 1100, not 11000 as stated in the risk analysis.

4.7.1.9 'The paragraph of the Cerambycidae is confusing. It is a mixture of statements that refer to *Anoplophora chinensis* and cerambycids in general. Note spelling of *Anoplophora* (o instead of e).'

***MAF response*:** Noted.

4.7.1.10 'Page 94. Coccinellidae. "…batches of 200-800…". Some species lay batches numbered tens. A lot of species would not lay 200 eggs in total.'

MAF response: Noted.

4.7.1.11 'Page 94. Nitidulidae. The submitter asks what size has to do with varying life histories?'

MAF response: The two clauses of the sentence are not related.

4.7.1.12 'Page 95. Platypodidae. Should be mentioned that platypodids are xylomycetophagous. The adults as well as the larvae are wood borers.'

***MAF response*:** Noted.

4.7.1.13 'Page 95. Scarabaeidae. Lower case "s" for scarabaeids.'

***MAF response*:** Noted.

4.7.1.14 'Page 95. Scolytidae. "…the adults rather than the larvae are the primary tunnelers…" This statement is not true of the bark beetles.'

***MAF response*:** Noted. The text reflects the reference MAF used.

4.7.1.15 In relation to Chapter 9, Bugs, Page 103, the submitter indicates that there are 4500 species of Aphididae.

***MAF response*:** Noted. The number in the text is that provided in the reference cited. The number of species in each family was included to give an indication of the scale of each family. The exact number makes no difference to the conclusions or recommendations of the risk analysis.

4.7.1.16 'Page 104. Ricaniidae. Saying *Scolypopa australis*... is now established in New Zealand would seem to imply it is a recent introduction. The first record from New Zealand is 1876.'

***MAF response*:** Noted.

4.7.1.17 Chapter 10, Lepidoptera, Page 107. The submitter indicates that there would probably be 97 genera in New Zealand alone.

***MAF response*:** Noted. The number in the text is the number of families not genera in the order (based on the reference cited).

4.7.1.18 The submitter indicates that the Lepidoptera section of the risk analysis 'is generally okay. However, it doesn't appear to take into account the winter period of no moth activity in the northern hemisphere. Targeted treatments or assessments could be refined by stepping up and down effort over flight periods for goods that are shipped promptly i.e. goods produced and exported in winter probably will need less intense inspection.'

***MAF response*:** Seasonality factors are considered in the entry assessment under 'risk factors'. For instance, in relation to gypsy moth the risk analysis states it is a univoltine species, so contamination with egg masses occurs only during the flight season (mid June to mid September in Japan depending on the latitude), but a vehicle can arrive at the port with a viable egg mass at any time of year. The same section indicates that fall webworm is multivoltine with overlapping life stages and no clear risk period for contamination, and that white spotted tussock moth is most likely to infest a vehicle at the egg stage in the northern hemisphere autumn, but could arrive in New Zealand any time between September to May (pages 117-118).

Note that a key risk factor for imported used vehicles is that they are not shipped promptly after production. They have an unknown use history. In contrast new vehicles have a history that is usually readily available and the risk management measures necessary to meet the stated risk management objective can therefore be more closely tailored to the individual pathway. The establishment and exposure assessment considered the effects of seasonality on the likelihood of the species assessed establishing in New Zealand. For instance, for Asian gypsy moth it indicates that preferred hosts are patchily distributed and would not be in a suitable condition for feeding larvae all year round (page 121). The issue is also addressed on page 130 where uncertainty about the likelihood of newly laid eggs of Asian gypsy moth during the period May to September, hatching in New Zealand without undergoing winter chilling is noted.

4.7.1.19 In relation to Chapter 20 (Micro-organisms associated with soil, plant and animal debris, faecal material and food), the submitter considers it is a thorough evaluation of the pathway from both published and unpublished studies. The shortcomings of the current processes with regard to micro-organisms are identified.

***MAF response*:** Noted.

4.7.1.20 The submitter considers the second column of Table 1 pages 184-187 is inappropriate /unnecessary. Most species are identified to genus only. Therefore it is not possible to know whether a particular species is here. This is not important as the table only demonstrates the capability of the pathway to transmit pathogenic species of that genus. 'Relying only on the Landcare database for these evaluations also can also be misleading. E.g. *Bartalinia* is listed as not occurring in NZ - but we have a specimen in our collection at Ensis.'

***MAF response*:** Noted. The explanatory text for interception tables in other chapters explains that 'status in New Zealand is specified as 'unknown' for interceptions identified only to genus or family when some but not all the species in that genus/family are present in New Zealand'.

This sentence could usefully have been included on page 184. However, the preceding paragraph explains that the status of any individual organism cannot be stated with the same degree of confidence as is possible for some other hazard groups. The limitations of the Landcare database are also acknowledged.

4.7.1.21 In relation to Chapter 32, Termites (page 332), the submitter states that the three indigenous species of termites are similar to subterranean termites only in as much as they are small and white. Delete 'rotting"; the indigenous termites can be found in sound timber.

***MAF response*:** It is acknowledged that the word 'rotting' is not the most appropriate way to describe the appearance of timber in which indigenous termites can be found. Nonetheless, this does not affect the conclusions or recommendations of the risk analysis.

4.7.1.22 The submitter states that the paragraph beginning "An incursion of *Coptotermes acinaciformis*..." is misleading because it implies there has only been two incursions of this species into New Zealand. 'This is not so. Incursions of *C. acinaciformis* date back to the 1930s and there have been many of them.'

***MAF response*:** The main point in this paragraph is that all recorded incursions of Australian termites in New Zealand have been associated with imported timber such as sleepers or wooden utility poles. Ross, M.G. 2005 (cited in the risk analysis) summarises the history of incursions of termites into New Zealand and notes that all species recorded have arrived from Australia, that infestations have mostly been within the North Island and that various researchers are of the view that all recoded incursions were introduced in rail sleepers or in wooden utility poles and could be traced back to their original source. There is no suggestion that any incursions have resulted from an alate flight. As a result of the numerous incursions, the biosecurity measures for imported wooden sleepers and poles were strengthened to include mandatory treatment.

This context is also relevant to the assessment of the likelihood of establishment of exotic termite species in New Zealand via the vehicle and machinery pathway. Section 32.3.3 of the risk analysis concluded that for a colony of termites to become established from a nest entering New Zealand in an imported vehicle it would be necessary for the nest to remain active long enough to produce a winged generation of sexual adults and this would be likely to take at least five years. Since the survival of alates is very low, the success rate of colony formation from alates is very low (Ross, 2005). Further, since the number of imported trucks and boats with wooden decks is very low in comparison with the rest of the pathway, the likelihood of establishment by this means can be assessed as very low. However, termites are mobile and may also establish new colonies through workers and nymphs moving out of infested wood and starting a new colony in the absence of conditions suitable for alate flights (Tamashiro et al. 1986). While this movement is relatively simple in the case of sleepers or utility poles that are in contact with the ground, to establish a new colony by this means from a truck or boat it would be necessary for covered galleries to be constructed over the side of the vehicle/boat and onto the ground. For these reasons the likelihood of exotic termites establishing in New Zealand via this pathway is very much lower than other commodities such as sleepers or wood packing.

4.7.1.23 '*Coptotermes* spp. are not restricted to moist stumps of dead trees (Page 333, 32.2.2.). The nests are subterranean, or in stumps or hollowed out trunks of dead

of living trees, or in mounds. They can cause severe damage to living trees. The statement "A nest would only likely…or perhaps in wooden decking" is at odds with saying "…live in moist stumps…"

***MAF response*:** Noted.

4.7.1.24 'Page 334, 33.3.1. *C.formosanus*. Note lower "f".'

***MAF response*:** Noted.

4.7.1.25 'Page 334, 32.3.3. and 32.3.4, "…to be located in the northern part of New Zealand…" and asks what about the incursion in Nelson? This is hardly the northern part of New Zealand.'

***MAF response*:** Noted. Paragraphs 32.3.1 and 32.3.3 describe the conditions required for *Coptotermes* spp. to become established. Since they are tropical and sub-tropical species warm conditions (whether artificial or natural) are required. The word 'northern' was intended to convey this, but we recognise that Nelson may be warmer than parts of the north island.

4.7.1.26 'Page 336, 32.7.4. there is quite a bit of information on the efficacy of the fumigants methyl bromide and vikane, against termites.'

***MAF response*:** Noted. We would welcome the references. There are other possible risk management measures not addressed in Section 32.7.4 of the risk analysis, including removal of wooden decks and application of insecticides.

4.7.1.27 The submitter points out that termites are found in sound timber, and questions the use of the word "rotten" (Page 337, second bullet point).

MAF response: The submitter is correct to point out that termites are not restricted to rotten wood. The assumption that termites are unlikely to survive the journey to New Zealand from vehicle exporting countries except Australia, is not based on a cited reference. Rather, the interception records on page 332 of the risk analysis indicate that termites can survive shipment from Japan and there are reports for instance in Su and Tamashiro (1986), which is cited in the risk analysis, that *Coptotermes formosanus* has been widely transported around the world.

As a result of this, MAF has re-considered the risk management measure recommended in Section 32.8 of the risk analysis for this group of hazards. The recommended measures are either visual inspection or mandatory heat treatment of fumigation with methyl bromide would be effective. Although rotten wooden decks can be detected relatively easily by visual inspection, termite activity in sound timber would be more difficult to detect. Mandatory treatment (or removal) of decks would ensure that termites do not enter via this pathway. However, given the very low likelihood of entry and establishment via the pathway such safeguards are not considered necessary to meet the risk management objective.

4.7.1.28 Chapter 33. Thrips. The submitter indicates that this section seems reasonable and thorough. 'Although the risk is fairly undefined, due to lack of species knowledge, small size, difficulty of identification, the hazard is adequately managed under the proposed measures.'

***MAF response*:** Submission noted.

4.7.2 Landcare Research, Dr. Peter Buchanan

4.7.2.1 'I commend the authors and reviewers of this Risk Analysis for their extensive collation of published knowledge, research reports, and monitoring trials relevant to the imported vehicle and machinery pathway and the respective hazard groups. In the submitters view the document demonstrates clearly that current measures are inadequate, especially from results presented by the Biosecurity Monitoring Group surveys. These, along with data produced by New Zealand research providers, while uneven in coverage, provide useful indicative measures on which to base a range of progressive recommendations.'

MAF response: Submission noted.

4.7.2.2 'In general I support the conclusions reached and recommendations, with the exception of the perceived (lower) level of risk from contaminating soil and debris, as discussed further below. I endorse the open acknowledgement of assumptions and uncertainties, and the need for further research in targeted areas.'

4.7.2.3 'I suggest that the statement concerning the "acceptable" higher level of entry of organisms found in soil, animal and plant debris (1.4) is unwarranted and is open to misinterpretation… With soil and debris the most frequently encountered contaminants in the vehicle pathway and potentially harbouring high risk organisms spanning several of the most biodiverse and least known groups of organisms, I judge it unwise to indicate a measure of acceptable slippage. Rather, I suggest that the Summary should highlight the frequency of occurrence and importance of soil and debris as potential sources of unwanted organisms, aspiring to negligible likelihood of entry and establishment through introduction of more focused and appropriate measures. Of particular concern as noted in Ch. 20 is used agricultural and forestry machinery and vehicles.'

MAF response: Submission noted. Section 20.6 (page 203) explains that all soil, plant and animal contamination is assumed to be a hazard, except that which is located in such a way that it has effectively been heat treated, or material which is concealed in parts of the vehicle that are not accessible without dismantling and therefore unlikely to be transferred to a location in which any associated organisms could establish. The risk analysis is clear that it is not possible to define thresholds below which the establishment is unlikely to occur (page 3), but recognises that operational decisions need to be made.

4.7.2.4 'I support increased regulations governing compliance centres and inspection facilities. I also endorse proposed further research into the efficacy and breadth of applicability of ethanedinitrile, as a replacement fumigant for methyl bromide. While New Zealand is committed to reduce its use of methyl bromide, additional pressure to achieve this will likely come from our export markets suggesting conflict with our advertised 100 percent Pure / Clean Green image.

4.7.2.5 I concur with the extensive range of risk management measures is discussed in Ch. 4, appropriately supported by relevant literature.'

MAF response: Submission noted.

4.7.2.6 Fungal taxonomy is a fast-advancing and specialized field of science especially with new molecular technologies leading to discovery of new taxa and more natural classification of species. The author offers advice from fungal taxonomists at Landcare Research to assist interpretation of names and name changes and suggest that the status of fungi listed in chapter 20 could have been resolved to a greater level of certainty through consultation and collaboration with relevant scientists.

MAF response: MAF recognises and values the wealth of expertise available in Landcare and other institutes. However, Table 1 is not a comprehensive list of organisms associated with soil and plant material in vehicles, it is included to indicate the types of organisms that have been found. Investing greater effort in clarifying status would be unlikely to change the conclusion at the end of this section that 'it is not practical to identify individual organisms associated with all soil, plant and animal debris on imported vehicles. Instead all soil, plant and animal debris and food contamination of imported vehicles and machinery is considered a potential hazard.'

4.7.2.7 The submitter clarifies that *Trichoderma viride* and *Cladosporium herbarum* are present in NZ and suggests in Table 1, of chapter 20 that all fungi recorded to species level only should be indicated as "unknown" in terms of "Present in NZ" (e.g., *Cyclaneusma* sp., *Microsphaeropsis* sp., *Thyrinula* sp.) since their precise identity is unknown. He identifies that the footnote for *Phytophora* spp. has been mislabelled and the footnote for *Stemonitis* spp. has been misplaced and suggests that (Pennycook 2003) should be removed from the table heading as a wider range of sources were used, as described in the text.

***MAF response*:** Submission noted. *Cladosporium herbarum* is not actually recorded in association with the vehicle pathway. These corrections do not affect the conclusions or recommendations of the risk analysis.

4.7.2.8 'I question whether a generalised statement can be justifiably made about the number of invasive wood decay fungi established in NZ. I suggest that the most seriously invasive and destructive temperate wood decay fungi have not (yet) established here (e.g., *Heterobasidion annosum, Phellinus weirii,* exotic *Armillaria* species). A measure of complacency of risk might be mistakenly indicated by the current statement.'

MAF response: The issue here is about how to assess the risk of fungi entering on wooden decks in vehicles, in the absence of any organisms having being identified or realistically being able to be identified (see risk analysis page 203). It is not intended to underplay the significance of wood decay fungi.

4.7.2.9 'Table 3, p. 189. With a large number of coprophilous fungi, fungi should be indicated as "present" on animal material esp. dung.'

***MAF response*:** Submission noted.

4.7.2.10 'The records of fungi associated with imported vehicles relies principally on the important study (1994-1996) by Forest Research Institute as presented in Table 1 (pp. 184-186), focused on species mainly from plant debris, identified to generic level, and of potential forestry significance. Records from soil from containers, arguably a highly comparable source, showed high levels of fungal contamination (p. 192-193). The documented presence of high risk organisms such as *Phytophthora* in soil from imported vehicles (p. 186) justifies targeted measures to eliminate this risk. As a result of these studies, Ridley et al. (2000) concluded that vehicles are likely to be a significant pathway for foliage pathogens entering NZ (p. 195, 1st para).'

4.7.2.11 'Given the paucity of studies of actual viability of pathogens entering NZ on the vehicle pathway (p. 197, last para), I question the scientific support for the conclusion on p. 200-201 that the likelihood of establishment of an exotic pathogen (incl. all fungi & nematodes), is "low but non negligible". This statement seeks to generalise across a mega-diverse and complex range of mostly microscopic organisms spanning several kingdoms that could be contained in contaminating soils and debris. These organisms will also include taxa new to science. I suggest that a high level of risk should be indicated, and that much broader studies be commissioned to investigate the diversity of contaminating organisms from soil and debris and their importance and to plant, animal, and human biosecurity and to conservation.'

4.7.2.12 'I thus strongly support the recommendation (p. 214, no. 3) for research to be undertaken on viability of microorganisms entering NZ associated with plant debris and soil and the likelihood of establishment.'

***MAF response*:** It is agreed that it is very difficult to assign risk descriptors to these large groups of organisms. Please note that since the risk was estimated to be non negligible (page 203) it was concluded that risk management measures are justified.

4.7.2.13 'I endorse the recommendations for imported used vehicles (35.1), new & used machinery and other vehicles (35.5), effective monitoring and review (35.6), and more effective education and awareness of all parties in the vehicle and machinery importation pathway.'

***MAF response*:** Submission noted.

4.8 CONSULTANT

4.8.1 Sempre Avanti Consulting New Zealand (SANZ), Gordon Shaw

4.8.1.1 SANZ provides services in management consulting, transport sector consulting, project management, human change leadership, organisational re-engineering, procurement and tendering, business process improvement and facilitation and planning. It has specific consulting, facilitation and project management expertise related to pre-shipment vehicle inspections in Japan and Singapore. It also has an in-depth operational understanding of the Japanese regulatory environment related to light passenger vehicles.

4.8.1.2 The submission acknowledges that the current system for inspection of vehicles and machinery is not robust enough and that the reliance on visual inspection needs review and enhancing. SANZ suggests that the inspection could be undertaken by third party qualified organisations and that the goal should be a world class inspection system. It suggests that the benefit of putting more inspection resource into the delivery of the current programme in Japan is debatable.

***MAF Response*:** The risk analysis concludes that visual inspection is not able to detect some hidden and mobile organisms, which include a number of high consequence but low frequency hazards (page 342). The current regime based on visual inspection does not meet the risk management objective for most of the hazard groups associated with the pathway (see chapters on individual hazard groups). Please also refer to key statement E in section 3 of this document. 100 percent visual inspection is not part of the recommended package of risk management measures. Issues relating to the audit regime are beyond the scope of the risk analysis and will be explored in more detail in the review of the import health standards (risk analysis pages 8, 30 and 347).

4.8.1.3 SANZ submits that in the absence of information on cost of the recommended measures it is difficult to draw any conclusions and to try to understand the relationship between cost, risk and return. It does not allow any robust review of cost benefit assumptions.

MAF Response: The risk analysis makes no cost benefit assumptions. Please refer to key statement L.

4.8.1.4 The submitter proposes a systematic project approach to introduce incremental steps that deliver the greatest benefits matched to risks, rather than a total package of changes that need to be implemented in one go.

MAF Response: The timing of implementation will be considered during the review of the import health standards. One of the purposes of the risk analysis is to match risk management measures to biosecurity risk.

4.8.1.5 The submitter suggests that the risk analysis should have a wider scope encompassing the regulatory requirements of other government departments and agencies and recommends that any new models of inspection for the Japanese pathway should be integrated so the inspection is multi agency focussed and inspections are not developed in silos.

MAF Response: The management of imported vehicles is subject to a range of regulatory controls. While, the scope of the risk analysis is restricted to biosecurity risk, the review of the import health standards will take account of other interests. The objective is to develop a system of interventions that is more effective and efficient overall. Nonetheless, MAF's prime concern is to ensure that biosecurity risks are managed effectively.

4.8.1.6 SANZ submits that the scope of the analysis is too limited in relation to potential new solutions and outcomes. It suggests that the only approach to the Japanese pathway is for 100 percent mandatory pre cleaning and pre screening off shore in

Japan. It then suggests an alternative option of mandatory cleaning and heat treatment or fumigation for the Japanese pathway. It suggests that if all vehicles are cleaned and treated offshore then there would be no need for MAF inspections, freeing MAF resources to concentrate on compliance.

MAF Response: Chapter 4 of the risk analysis discussed 28 different approaches to managing the pathway. SANZ' alternative suggestion matches in large part the recommendations of the risk analysis (section 35.2). Please refer to key statement I regarding offshore risk management.

4.8.1.7 The submitter notes that the risk analysis has not considered outsourcing biosecurity inspections to suitably qualified organisations such as Japan Auto Appraisal Institute, JEVIC or SGS. He recommends that this option is explored further.

***MAF Response*:** Submission noted. Page 30 of the risk analysis discussed certification of risk management by MAF-approved and MAF-audited private operators. It noted that there are no data with which to assess their contribution as risk factors and that it is not addressed in the risk analysis. This practical consideration will be addressed in the review of the import health standards.

4.8.1.8 Notwithstanding the suggestion of mandatory cleaning and treatment, in relation to section 1.5, the submitter states a preference for the 'alternative package of measures' because of the time taken to heat treat a vehicle.

MAF Response: *Submission noted.*

4.8.1.9 The submitter suggests that there seems to have been no assessment of vehicles arriving in New Zealand in containers.

MAF Response: This arrival mode is discussed in chapter 3 of the risk analysis, particularly pages 26 and 33. The recommended risk management measures apply to all vehicles, whatever means of transport is used. It is recognised that the logistics of implementing the measures will vary between transport modes. These matters will be considered during the import health standard review.

4.8.1.10 Paragraph 1.5.2: the submitter asks why new vehicles are being treated differently. It questions the evidence that new vehicles are lower risk and recommends that the same rules apply for both new and used vehicles and suggests that page 27 raises good reasons as to why this should be.

***MAF Response*:** Please refer to key statement H. Note that page 27 only describes the current situation.

4.8.1.11 Paragraph numbers 2 and 5 on page 22: the submitter asks for the detailed costings that support the argument that vehicle volumes can be used as a justification for the effectiveness of the offshore programme. The submission notes that the data used is two years old and questions whether more recent information is available.

MAF Response: This section is intended to provide an overview of the current risk management regime. Detailed cost information was not used. Rather the statement that 'whilst the option for offshore inspection is not geographically limited, it is usually only cost-effective when large volumes of vehicles are exported and is currently only routinely applied to vehicles exported from Japan' is based on discussion with stakeholders. The figures for proportion of vehicles cleared through the process of assisted cleaning are only available for the two snapshots described on page 22 of the risk analysis, i.e. October 2005 and March 2006. These are included merely to give an indication of the scale of the practice.

4.8.1.12 Para 3.3.1: the submission notes that there is no reference to the long standing plans by the Ports of Auckland to develop Pikes Point as a dedicated inland vehicle port facility . Development of this facility would remove the issue of available space at the wharf. The submitter recommends that inspection site standards should link to the Land Transport NZ Vehicle Inspection Requirements Manual.

MAF Response: Submission noted. Note this section only describes the current situation.

4.8.1.13 Section 3.3.3: the submission questions LTNZ's position on the recommendations in the risk analysis and the impact of the recommendations on LTNZ's service delivery strategy.

MAF Response: These factors are outside the scope of the risk analysis and will be considered during the review of the import health standards.

4.8.1.14 Chapter 4: SANZ notes that there is no specific reference to the risk management of the TRS operators in Japan and suggests that an option could be to set minimum standards for approved facilities in Japan higher than they are currently set, for instance requiring mandatory accreditation to ISO 17020 or equivalent.

MAF Response: The need to improve standards for facilities and inspection both onshore and offshore is recognised in the risk analysis (section 35.3.3). Specific factors are identified in the detailed chapters for each hazard group. How such improvements are implemented will be considered during the review of the import health standards.

4.8.1.15 Section 4.3.2: SANZ suggests that the number of cases where contaminants have been found during the LTNZ compliance centre process seems to be a very small proportion of the total vehicles and recommends that a trial of invasive inspections in Japan may provide better data.

MAF Response: Whilst the available data are undoubtedly limited, they indicate that contamination is found relatively frequently at the LTNZ compliance centres (page 38). The LTNZ compliance checking process is not currently implemented offshore.

4.8.1.16 Section 5.8.1: SANZ recommends adding '100 percent of all vehicles receive' to the start of the section to clearly state the intentions.

MAF Response: Suggestion noted.

4.8.1.17 Section 35.1: SANZ suggests including 'the introduction of 100 percent mandatory pre clearance of all vehicles from Japan' in the package of recommended biosecurity risk management measures.

***MAF Response*:** Please refer to key statement I.

4.8.1.18 Section 35.2: the submitter suggests adding '100 percent' to bullet point two to clarify the intention.

***MAF Response*:** Suggestion noted.

4.8.1.19 Section 35.3.2: The submission notes that there seems to be no scientific justification for the 'ten day rule' and recommends that offshore risk management be coupled with targeted measures to prevent recontamination, rather than a blanket ten day rule and three metre rule. It also recommends that in-transit treatments are explored with a focus on legal, technical and safety considerations.

MAF Response: The risk analysis clearly states that no scientific justification has been found for the ten day rule or the three metre rule and recommends targeted recontamination prevention measures (page 349). MAF notes this support for targeted recontamination prevention measures and for the recommendation in the risk analysis to further explore in-transit treatments (page 350).

4.8.1.20 Section 35.6: SANZ recommends consideration of a public private partnership to assist with monitoring and audit of the vehicle and machinery pathway in Japan and Singapore.

MAF Response: Issues relating to audit regime are outside the scope of the risk analysis and will be explored during the review of the import health standards (pages 8, 30 and 347).

4.8.1.21 Section 35.6.2: SANZ agrees with the list of research topics and recommends adding:

1. **research to develop a set of inspection outcomes for biosecurity, safety and emissions test at the port of embarkation;**
2. **Review the minimum requirements and consider new rules for TRS operation in Japan, Singapore and New Zealand;**
3. **A risk analysis to fully outsource the inspection programme in Japan and Singapore**
4. **Continue trials for heat treatment of arthropods;**
5. **Further research into other fumigation treatments to replace methyl bromide.**

MAF Response: Items 4 and 5 are covered by the recommendations in section 35.6.2 of the risk analysis. Item 2 has been incorporated into the package of measures recommended in the risk analysis. Items 1 and 3 are outside the scope of this biosecurity risk analysis, but will be considered during the review of the import health standards.

4.8.1.22 Section 35.8: The submitter suggests that 2006 vehicle import figures should be used in the analysis rather than 2005 figures. The submitter recommends that

further research, consultation and operational trials are required for heat treatment to prove its worth.

MAF Response: Submission noted.

4.9 GOVERNMENT DEPARTMENTS

4.9.1 Ministry for the Environment (MFE), Dr. Sarah Adams-Linton, Senior Advisor, Hazardous Substances and New Organisms, Environmental Stewardship

4.9.1.1 Given the large quantity of vehicles covered by the proposed revised IHS, MFE is concerned at the apparent suggestion that a unilateral requirement be imposed for methyl bromide fumigation for these imports. MfE is working actively with MAF Biosecurity and other agencies to look at ways whereby New Zealand can reduce its current heavy reliance on methyl bromide as a quarantine and pre-shipment fumigant. While alternatives may not be readily identified at the present time, we consider methyl bromide should be considered a 'last resort'/if-all-else-fails option, rather than the 'first-off-the-rank'. MFE therefore supports alternative measures (e.g. heat treatment) to methyl bromide, being evaluated and used in preference to fumigation with this ozone depleting substance where this is economically and technically feasible. They consider it is important that recommendations for biosecurity risk management, be viewed in the context of the Government's commitment to reduce methyl bromide use where possible, and in relation to the ongoing work across central government in this regard.

MAF Response: MAF recognises the concerns around the issue of methyl bromide use. These will be considered in the next stages of the review of the import health standards. Please refer to key statement K.

4.9.1.2 MFE note that the current risk management regime does not meet the requirement that vehicles are free of contamination (97 percent) at the point of clearance into New Zealand (page 37). They also note that there are means of decreasing the likelihood of contaminated vehicles entering New Zealand that are available under the current regime, but not currently utilised. They point out that the import risk analysis notes the paucity of information available on the efficacy of managing hazards associated with the vehicle pathway (page 29). They consider that further investigation of possible alternative options to methyl bromide fumigation could be usefully investigated before such a treatment option was proposed.

***MAF Response*:** Eight alternative fumigants to methyl bromide were considered in Chapter 4 of the risk analysis. However, these are not considered to be suitable, either because they would cause damage to vehicles, there is insufficient efficacy data, or they are not currently available for such use. Nonetheless, MAF is currently funding research into possible alternatives. Heat treatment has been identified as an alternative to methyl bromide and is recommended in the risk analysis. Please also refer to key statement E regarding the risk management objective.

4.9.1.3 The submission points out that the risk analysis notes that most of the identified hazards on the vehicle pathway are either 'hitch-hikers' or "are associated with other contaminants in/on vehicles and machinery" (page 15). A key concern is the apparent lack of pre-shipment/off-shore treatment prior to entry to New Zealand. It appears that many of the high risk vehicles can be identified prior to shipment and could be treated in advance of arriving at the New Zealand border as indicated by the information presented in the tables on page 26). Identifying and addressing risks at source to reduce the need for post-entry treatment in the first instance would seem highly preferable to unilateral fumigation on entry.

MAF Response: Please refer to key statement I on offshore risk management.

4.9.1.4 MFE note that while routine interceptions pick up pests on new imports, there are currently no formalised conditions placed on the importation of new vehicles. They suggest implementing such an adapted and improved version of the current 'used' import process would seem a logical first step in addressing this short-fall.

MAF Response: Please refer to key statement H and page 352 of the risk analysis for recommended measures for new vehicles.

4.9.1.5 MFE appreciate that this is but the first step in the process of reviewing the IHSs for vehicles et al, and that firm decisions will not be made until the costs and benefits of the proposed measures are fully assessed. They look forward to having an opportunity to work further with MAF on this matter.

MAF Response: Submission noted.

4.9.2 Ministry of Health (MOH), J R Gardner, Senior Adviser Border Health Protection

4.9.2.1 MOH has reviewed the Risk Analysis document and has noted the findings in Section 22 - Mosquitoes Culicidae. They consider the material in this chapter is scientifically sound and appears to accurately reflect the situation regarding the potential risks that imported vehicles and machinery might create in New Zealand if they were not subject to a robust verification regime to identify and deal with exotic mosquitoes.

4.9.2.2 The Ministry endorses the appraisal made in the document regarding the exposure and consequence assessments if exotic mosquitoes of public health significance were to be come established in New Zealand.

4.9.2.3 MOH supports the current exclusion programmes for exotic mosquitoes of public health significance. The Ministry recognises the need for effective tools to be readily available to treat possible interceptions/incursions of mosquito vectors. For this reason the Ministry strongly endorses the continued utilization of methyl bromide as a treatment agent. This endorsement would only be modified if a novel treatment product or technique of equivalent efficacy to methyl bromide was identified and was available for operational usage.

***MAF response*:** Submission noted. Please refer to key statement K.

4.10 PARLIAMENTARY

4.10.1 Greens Advisory Unit, Chris Teo Sherrell

4.10.1.1 The submission raises the possibility of phosphine gas being used in place of Methyl Bromide, with treatment occurring during shipment.

***MAF Response*:** The risk analysis considers the use of phosphine in section 4.5.3. It was ruled out as a possible risk management measure for vehicles because it is corrosive to metals, particularly copper and any copper-containing equipment (especially electrical apparatus) may be damaged.

4.11 INDIVIDUALS

4.11.1 An Anonymous individual

4.11.1.1 An anonymous individual telephoned on 14 February 2007. He had not fully read the risk analysis, but wished to submit the following observations regarding the biosecurity management of imported machinery:

- **In his experience, due to the complex construction of machinery, visual inspection does not find all contamination on imported machines. Cleared machines frequently go to an importer's workshop for servicing. Many contaminants are found during the servicing process and are not securely disposed of.**
- **He suggests that all used machinery importers should be required to be registered as transitional facility operators so that any contamination is disposed of properly.**
- **He suggests there should be a requirement for all used machinery to be serviced by a certified company at a transitional facility prior to issuing biosecurity clearance. The partial dismantling of the machine required for servicing would provide a better opportunity for detecting biosecurity contamination than inspection without dismantling.**
- **He thinks the responsibility for removing biosecurity contamination should be placed more firmly on importers, with less onus on MAFQS. There should be stringent penalties e.g. license removal for importers who do not behave responsibly.**

MAF Response: Submission noted. These issues will be considered in the review of the import health standards.

4.11.2 Mark Forward, Upper Moutere

4.11.2.1 The submission is from an individual who welcomes the review and believes importation of vehicles and machinery is an area of high risk that we need to

continually improve to reduce the risk of a serious incursion. The submitter agrees with the Risk Management Objective and that offshore decontamination is the best option (as long as the process is closely monitored and audited to ensure compliance to the standards).

4.11.2.2 The submitter considers the risk assessments to be reasonable under the current state of knowledge and suggests that recording, collection, identification and documentation of dead insects/ material on imported material could help to improve the risk assessments for the each hazard group.

MAF response: Submission noted.

4.11.2.3 The submitter states that the risk management measures seem to be reasonable under the current state of knowledge (with the exception of bark beetle risk management). Regular auditing must be done to determine the efficacy of these measures (as detailed in the slippage surveys). These surveys should be done as part of normal day to day operations.

MAF response: Submission noted. Audit regimes will be considered as part of the import health standards review.

4.11.2.4 The submitter contends that trapping surveillance for Bark Beetles should be reintroduced at ports and transitional facilities. He states that the risk analysis acknowledges the risk of beetle incursions in used machinery and vehicles, but doesn't go far enough into risk management measures. Although no live Mountain Pine Beetles (*Dendroctonus ponderosae*) have been detected on vehicles or machinery to date, other species from this family have. This species has the potential to devastate our conifer forests. Beetles in the Genus *Anoplophora* like the Asian Long Horn also pose a significant threat and have been intercepted live in the past.

MAF response: Section 2.3 of the risk analysis describes the approach taken to the selection of hazard groups to be assessed in detail. Specifically, where a hazard group is found to be sufficiently similar in biology and behaviour to another hazard group, such that additional risk management measures would not be required, then a full risk assessment is undertaken for only one of the groups. In the case of bark beetles it was considered that the risk management measures recommended for the management of dermestid beetles, soil, plant and animal debris would also effectively manage the risk from bark beetles on this pathway. The absence of a detailed risk assessment for this group is not intended to reflect the significance of the consequences of organisms in the group if they were to become established in New Zealand. The submission suggests an additional risk management measure of trapping surveillance at ports and transitional facilities. This may be an appropriate measure since there are a number of pathways for entry by bark beetles, notably timber, but it does not appear to be justified by the risk from this particular pathway.

4.11.2.5 The submitter considers a research programme should be maintained seeking risk management alternatives and improving the current packages of measures.

MAF response: Submission noted.

4.12 FREIGHT AND CUSTOMS BROKERS

4.12.1 Advance International Ltd., David MacAllister, Managing Director

4.12.1.1 Section 1.5.1 The submission points out that the term 'crash damaged vehicle' needs to be defined. He is concerned that if the 'tag' applied by MAF on behalf of LTNZ which can include minor panel damage is used as the basis for determining 'crash damaged vehicles', then many vehicles could be unnecessarily treated.

***MAF response*:** This term will be defined in the review of the import health standards.

4.12.1.2 Section 1.5.3 The submission contends that the reference to 8 weeks in relation to synthetic pyrethroid formulation requires further qualification. The submitter appears to be concerned that there would be a requirement to hold units on the wharf for 8 weeks.

MAF response: The intention of the recommendation is that the insecticide used should be formulated so that it is resistant to degradation by sunlight for a minimum period of 8 weeks. On page 236 of the risk analysis, the rationale for this requirement is explained, namely that 8 weeks is assumed to be the longest period of time that it would take between offshore treatment and arrival in New Zealand. For offshore treatment with pyrethroid to be effective, it would need to remain effective against all mosquito life stages for no less than 8 weeks even when exposed to sun and rain in order to prevent recontamination.

4.12.1.3 Section 1.5.3 The submitter points out that the categories of vehicle requiring different management e.g. those used for transporting grain will need tight definition to avoid unnecessary treatment of for instance vehicles used for transporting supermarket supplies.

MAF response: This term definition will be addressed in the next stages of the review of the import health standards.

4.12.1.4 The submitter contends that it is inevitable that any revision to the import health standards will follow the recommendations of the risk analysis. Accordingly it is important that cost benefit analysis and the logistics of proposed recommendations should form part of this analysis. Greater public participation and willing co-operation might be forthcoming if all the logistical and economic consequences were involved in the risk analysis. Unfortunately past measures implemented by MAF/Biosecurity whilst fine in principle become a completely different ball game once the full facts are known. It is also understood that this risk analysis is the first time that such a measure has been undertaken by any country. As such it is our recommendation that the entire process be fully disclosed from the outset.

MAF response: The scope of the risk analysis is restricted to biosecurity risk and is an essential part of the review of the import health standards. As the submitter has pointed out,

other factors need to be taken into account in deciding on an import health standard. The process for the analysis of biosecurity risks is set out in chapter 1 of the risk analysis.

Appendix 1: Submissions

INDEPENDENT MOTOR VEHICLE DEALERS ASSOCIATION, DAVID VINSEN, CHIEF EXECUTIVE

30/04/2007

Attn: Martin Van Ginkel

Biosecurity New Zealand,
PO Box 2526,

Wellington.

Import Risk Analysis: Vehicles and Machinery

"If It Aint Broke Don't Replace It"

To whom it may concern,

Thank you for the opportunity to comment on the risk analysis document.

1. Background
The IMVDA is the trade association representing the majority of the import trade relating to used vehicles from Japan, Singapore and other jurisdictions. We represent Japanese exporters, shipping companies, ports, compliance shops, service providers as well as importers, wholesalers and retailers of used vehicles. We work closely with the relevant Government Departments including MoT, Land Transport NZ, MfE, etc as well as MAF and many statutory authorities; we are recognised as the representative organisation for the wider used vehicle import trade.

2. Overview
We support the aims of reducing the biosecurity risk to New Zealand.

While we are not qualified to make meaningful comment on the technical details or methodology of the Risk Analysis, we are well placed, by virtue of our representing all key players in the used vehicle import trade, to comment on the likely effects on the trade of the recommendations for treatment.

Our strong preference is for the risk management package specified in 35.2 of the discussion document ie a fine-tuning of the current system of inspect, treat if necessary and re-inspect.

Rationale

We understand the present pathway is recognised internationally as being best practice, and we have what is considered an Appropriate Level of Protection; the systems and procedures are

robust and thorough, and the "slippage rate" has been identified as being less than 1 percent, (section 4.2.1 of the risk analysis document).

We are unaware of any incursions that have been definitively attributed to the used vehicle vector.

We contend that the current system obviously "ain't broke", and doesn't need replacing.

3. Concerns and opposition
We are opposed to the risk management measures recommended in section 35.1 of the discussion document, ie mandatory treatment of every vehicle.

Our opposition is based on the following concerns:

• There is no proven need for such mandatory treatment of all vehicles
• It would be logistically impracticable to either chemically or heat-treat every vehicle. Physical and environmental constraints at the load and discharge ports would militate against such compulsory treatment.
• The delays and additional costs incurred would not be justified by an increased level of biosecurity efficacy
• Methyl bromide is a pervasive chemical; the odour associated with chloropicrin, often used as a marking agent for methyl bromide, is in many cases impossible to eliminate or mask, rendering vehicles unsaleable
• Methyl bromide residue may have negative health impacts on the owners and occupants of vehicles.
• Processes requiring the continued use of methyl bromide would be in contravention of New Zealand's obligations under the Montreal Protocol
• Heat treatment of every vehicle would be energy-inefficient, would add to the greenhouse gas effect, and would increase the carbon footprint associated with the importation of vehicles.

4. Recommendations
While we recognise that our current system is very effective, we also agree that any system is capable of being improved, and we have the following recommendations:

• As a matter if policy, IMVDA strongly believes that biosecurity risks should be managed offshore whenever practicable.
• Encouragement of 100 percent off-shore pre-cleaning and MAF clearance of vehicles shipped on pure car carriers (RORO vessels).

Note: Many of the vehicles being imported are pre-cleaned off-shore by organisations that have recognised the need and commercial opportunity; they have made substantial capital investments to provide pre-cleaning services and they have contracted NZ MAF Quarantine Service to supply staff who inspect and pre-clear vehicles prior to shipment. This process should be encouraged and incentives provided if possible.

• Use heat treatment as a last resort for vehicles that require additional treatment after an initial inspection.
• Phase out the use of methyl bromide as quickly as possible

• Use the general process for containers (ie Accredited Persons at Approved Transitional Facilities: “ATF”s) for vehicles imported in containers and multifunction LOLO vessels.
• Develop a specific category of ATF for Service Centres.
The requirements could include inspection/replacement of air filters, inspection of previously inaccessible parts etc.

Note: Land Transport NZ’s recognised Service Centres (known as “Compliance Shops”) are a vital stage in the processing of imported used vehicles. Compliance shops are spread throughout New Zealand; they process all imported used vehicles. An essential element of the light vehicle certification process requires major stripping of covers and trim in vehicles exposing areas not able to be easily viewed by MAF Quarantine inspectors.

5. Whole of government approach
The industry is surprised and concerned about the apparent lack of a "whole of government" approach to proposed regulatory interventions associated with the used vehicle imports trade. Both MAF Biosecurity (Risk Analysis leading to a revised Import Health Standard) and the Ministry of Transport (new emissions standards) are currently proposing significant and new interventions that will have individual and cumulative effects by adding new compliance costs and delays, and in the case of MoT, severely restricting used vehicle imports. In addition to the other points raised above, the industry urges stronger inter-agency co-operation to ensure that all new interventions cause minimal restrictions and are implemented in a phased manner.

6. Summary
While we agree in principle with the need for a strong biosecurity regime, we disagree with the primary recommendation of the Risk Analysis document.

We recommend the risk management package specified in 35.2 of the discussion document ie a fine-tuning of the current system of inspect, treat if necessary and re-inspect.

Yours faithfully,
Independent Motor Vehicles Dealers Association

David Vinsen
Chief Executive

MOTOR INDUSTRY ASSOCIATION, PERRY KERR

27 April 2007

Mr Martin Van Ginkel
Biosecurity New Zealand
P O Box 2526
WELLINGTON

Email: martin.van_ginkel@maf.govt.nz

Dear Mr Van Ginkel

IMPORT RISK ANALYSIS : VEHICLE AND MACHINERY

Introduction

This submission is made on behalf of the Motor Industry Association. The Association represents the importers and distributors of New Zealand new vehicles.

Members are the official representatives of a vehicle marque. Members import for sale new passenger cars, light and heavy commercial vehicles which are then sold through a franchise dealer network.

A limited number of members also import for refurbishment and sale used imported vehicles from Japan and Singapore.

MIA member comments – New Zealand new vehicles

Members in the main have no particular issue with the proposals for New Zealand new vehicles.

Members have been asked to ensure that where new vehicles are stored prior to export, in the source country, that the vehicles are stored on a hard (preferably asphalted) surface that is free from overhanging vegetation, weeds etc. We received no feedback from members indicating that this was not the case.

Members accept that for the future there will be an increased number of inspections of new vehicles while Biosecurity satisfies itself that new vehicles do not represent a risk.

Used imported vehicles

Following the release of the discussion document the Independent Motor Vehicle Dealers Association contacted the MIA seeking member comment on whether or not heat treatment of vehicles to a core temperature of 60°C for ten minutes would affect the vehicle and/or componentry.

Members advised that this was not of concern, as long as the heating was not by 'irradiated laser beam', that none of the electronic componentry or other components, i.e. seat upholstery etc in a vehicle would be affected by such treatment.

Members however noted that fumigation with methyl bromide did adversely affect vehicles especially upholstery by leaving a distinctive smell which they say is almost impossible to rid the vehicle off – meaning that it becomes almost virtually unsaleable. We would not recommend this as an option for the majority of vehicles.

We therefore advise that in terms of the procedures for imported used vehicles that we believe, if adopted, can be implemented with limited impact on the vehicle fleet. These comments however do not relate to issues of logistics, timing or cost.

* * * * * * * * * * * * * * * * * *

If you require any additional information or clarification of any points please do not hesitate to contact us.

Yours sincerely

Perry Kerr
Chief Executive Officer

MOTOR TRADE ASSOCIATION, MARK FRAMPTON

30 April 2007

Martin Van Ginkel
Biosecurity New Zealand
PO Box 2526
Wellington

Dear Martin

MAF Biosecurity New Zealand Import Risk Analysis: Vehicle and Machinery

Thank you for the opportunity to comment on your 7 February 2007 paper - Import Risk Analysis: Vehicle and Machinery.

MTA represents approximately 4500 members of the New Zealand motor industry, which includes members who import both used and new vehicles and machinery. Membership also consists of businesses who are involved with entry certification, collision repair certification and general vehicle repair.

MTA are conscious of the many and varied potential consequences associated with biosecurity outbreaks that could lead to the collapse of several infrastructures including but not limited to agriculture, forestry and tourism. The flow on would no doubt significant consequences for our industry and we deem this matter to be serious.

Overall MTA are supportive of sensible measures that will manage high consequence hazards while remaining cost effective and non-damaging for our members importing vehicles from Japan.

It is difficult for MTA to comprehensively comment on the recommended risk management strategies in this discussion paper due to our lack of expertise on biosecurity risk management and hazards. However, where appropriate we will answer your questions to the best of our ability.

MAF Questions

1. *What are your views on the risk assessment for each hazard group? Are the risk assessments accurate? What changes, if any, are required? Please provide evidence to support your submission.*

MTA is not suitably qualified to provide comment on this question.

2. *Has the efficacy of risk management measures for each hazard group been evaluated accurately?*

MTA is not suitably qualified to provide comment on this particular question however we wish to comment on the general risk management measures proposed in this document.

MTA have concerns with the use of methyl bromide having side effects less desirable than the actual biohazard they are intended to control.

The United States Environmental Protection Agency advises “Methyl bromide is highly toxic. Studies in humans indicate that the lung may be severely injured by acute (short-term) inhalation of methyl bromide. Acute and chronic (long term) inhalation of methyl bromide can lead to neurological effects in humans”.

In a perfect world methyl bromide fumigation is carried out in controlled environments and ideally all gas used is recaptured however; motor vehicles are constructed from a variety of composite materials and have a multitude of compartments to absorb and retain residue fumes. The question we pose is can MAF ensure that secondary gas release will not occur after the required 2-4 day fumigation rest period.

This is of particular concern when feedback from our members indicates vehicles fumigated with methyl bromide are rendered un-saleable for a considerable time due to pungent residual fumes.

MTA find it highly questionable that MAF recommend measures that have substantial health and safety implications without due consideration to the well being of all stakeholders including future vehicle occupants.

We therefore recommend that a health and safety analysis on the use of methyl bromide to fumigate motor vehicles be conducted prior to any concrete consideration be given to its continued use.

Furthermore, the MAF Import Risk Analysis advises New Zealand is committed to reducing the use of methyl bromide as a signatory of the Montreal Protocol. However, this document does not mention methyl bromide is considered 60 times more destructive to the ozone than chlorine, even in small amounts and its use has been granted a critical exemption with very strong recommendation to cease its use.

Current key messages from government postulate a dedication to develop strategies to reduce carbon emissions and support environment sustainability; yet one of its own agencies recommends the use of an ozone depleting substance!

We acknowledge bio-security is of vital importance to the well being of New Zealand agricultural, forestry and other environs and the use of methyl bromide as a fumigant to protect these areas may be hard to replace, particularly in other pathways, but MTA are reluctant to support the continuance of its use on motor vehicles.

With these facts in mind MTA can only support the alternative packages of measures for imported used vehicles (excluding machinery) as the MAF import risk analysis recommends for consideration in the review of import health standards.

MTA are particularly supportive that Land Transport NZ registered compliance centres become part of the formal biosecurity management process as a transitional facility. This is a pragmatic addition to the bio-security regime considering the degree of invasive inspection required by Land Transport NZ during the entry compliance inspection.

As part of the alternative package of measures vehicles may require heat treatment if determined by the MAF Inspector. If a high percentage of risk is invisible to the naked eye will a typical visual inspection indiscriminately allocate vehicles for the proposed fumigation or heat treatment?

Notwithstanding the above question, MTA are supportive of heat treatment if it reduces the removal of vehicle trim, doesn't deteriorate or distort vehicle components and is more cost effective than the current designated strip and cleaning activity.

A reduction in vehicle trim removal is especially desirable for MTA members who regularly voice concern regarding the number of vehicles delivered after MAF invasive inspection with damaged trim and missing components. This is particularly prevalent in luxury vehicles where the trim is difficult to remove without a high level of experience and the correct equipment. With regard to any further consideration in this area MTA asks to be actively involved.

3. *Are there alternative packages of measures that will achieve the risk management objective? Please provide details.*

MTA are not aware of any further alternative measures that will achieve the risk management objective.

MTA appreciate the chance to comment on the Import Risk Analysis: Vehicle and Machinery and look forward to your document summarising the submissions.

We also look forward to the New Zealand Institute of Economic Research (NZIER) cost-benefit analysis of the range of risk management measures presented in the risk analysis document. This is of particular interest to our member's in a climate where used import vehicle numbers have dropped by approximately 15 percent over the past 18 months and numbers are likely to drop significantly more as government prepare to require used vehicles meet emission standards which could have a restrictive effect.

Yours sincerely

M. Frampton

Mark Frampton
Vehicle Technical and Compliance Manager

NEW ZEALAND FOREST OWNERS ASSOCIATION, DAVID RHODES

27 April 2007

NZFOA Submission to MAF on:

Import Risk Analysis: Vehicle and Machinery

1. The NZFOA is an NGO that represents the majority of forest owners in New Zealand. Its members' forests comprise more than 80 per cent of the country's 1.8 million hectares of plantation forestry. The Association adds value to the businesses of its members by undertaking activities, which could not be handled easily or efficiently by individual growers working alone. Its credibility also relies on the fact it has the support of the majority of New Zealand's production forest owners.

2. The NZFOA Forest Health Committee is responsible for the industry's Forest Health Surveillance Programme, promotes policies to improve biosecurity, and identifies and provides funding for forest health issues. Biosecurity issues relevant to plantation forest health and safe trade are within the scope of the committee.

3. We have reviewed the document: **Import Risk Analysis: Vehicle and Machinery** and we congratulate BNZ on a very thorough job.

4. The forest industry has always been very concerned over the biosecurity risk associated with the import of used vehicles and we welcome this Risk Analysis.

5. As an industry body we are unqualified to comment on the risk assessments for each hazard group and we has asked others such as HortResearch and ensis to comment directly on those areas most relevant to them.

6. Section 7 – Coleoptera. These beetles are of major concern to the forest industry. We agree with your conclusion that they are "potential hazards on the used vehicle pathway".

7. Section 10 – Lepidoptera. These too are of major concern to the forest industry. We agree with your conclusion that they are "potential hazards on the vehicle and machinery pathway".

8. Section 10.8 – Lepidoptera – Recommended Measures. We support the recommendations for heat treatment and greater research. The treatment should be done in New Zealand so that we are confident it is done to a high standard. Fines should be strictly imposed for failure to meet vehicle cleaning requirements.

9. Section 23 – Seeds. The FOA is very concerned about the accidental import of weed seeds that may cause future problems for primary industry. Given the uncertainty (p 285) around this pathway we recommend that more research be conducted.

10. Section 35 – Summary of Recommended Measures. We agree that more research should go into finding a Methyl Bromide alternative. We question whether "off-shore" treatment would be as reliable as treatment in New Zealand given the lack of ability to monitor treatment facilities and operations in other countries.

11. Final comment. While we recognise that preventing incursions is very difficult it is important that MAF remains vigilant and continues to improve its systems. Most of the focus in this document is on treatment measures rather than on new detection technologies, however, MAF should consider evaluating the usefulness of technologies, such as SYFT technology, for detecting biosecurity threats.

12. We are happy to discuss any issues in more detail.

Regards,

David Rhodes
Chief Executive
NZ Forest Owners Association
26 April 07

04 473 4769
David.Rhodes@nzfoa.org.nz

ROAD TRANSPORT FORUM NZ, MARK NGATUERE

Contact:
Mark Ngatuere
Policy Analyst
Road Transport Forum NZ
P O Box 1778

APRIL 2007

SUBMISSION BY ROAD TRANSPORT FORUM NEW ZEALAND TO THE MINISTRY OF AGRICULTURE AND FORESTRY REGARDING IMPORT RISK ANALYSIS- VEHICLES AND MACHINERY

1.0 Road Transport Forum New Zealand

1.1 Road Transport Forum New Zealand is a nationwide organisation of voluntary members drawn from the road transport industry and includes owner-drivers, fleet operators and providers of services to freight transport operators. The Forum provides services to and public policy advocacy for its members.

1.2 The Forum's Constituent Associations include:

- New Zealand Road Transport Association Northern Region (Inc)
- National Road Carriers (Inc)
- New Zealand Road Transport Association Region 2 (Inc)
- Central Area Road Transport Association (Inc)
- New Zealand Road Transport Association Region 4 (Inc)
- Combined Owner Drivers Association (S.I.) Inc
- New Zealand Road Transport Association Region 5 (Inc)

1.3 The Forum's Associations have in excess of 4,000 members and associate members who operate approximately 17,000 trucks over 3,500 kg or 80 percent of the hire and reward truck fleet in New Zealand.

1.4 The Forum is the authoritative voice of New Zealand's road transport industry which employs 22,600 people (3 percent of the workforce), has a gross annual turnover of $5 billion and carts over 80 percent of New Zealand's land based freight.

2.0 General Comment

2.1 The Forum's technical expertise does not extend to the containment of pest organisms as covered by the Risk Analysis document, however as the commercial road transport industry's primary representative we believe we are able to provide comments on some

of the Risk Analysis document's contents that are likely to negatively affect our members and other parties involved with the importation of vehicles and machinery.

2.2 Whilst being fully supportive of the Government in its attempts to ensure that New Zealand remains free of the hazards presented by the inadvertent importation of unwanted pest organisms "piggybacking" into New Zealand through vehicle importation, the Forum wishes to mention the lack of research within the Risk Analysis discussion document regarding the magnitude of the biosecurity risk being presented by the importation of vehicles and the costs associated with increased inspection and eradication procedures.

2.3 The Risk Analysis discussion document states that there is very little information available in regard to the biosecurity risks associated with the importation of new and used imported vehicles/ machinery. The apparent lack of information gathering prior to releasing the Risk Analysis research (and subsequent release of the discussion document) could be perceived as seeking the answer to a problem that might not exist.

2.4 Thus a situation could be created whereby excessive procedures might be put into place to avoid the risks associated with not being able to identify and eradicate pest organisms. This situation would probably also be accompanied by unnecessary cost increases.

2.5 It is also probable that additional costs incurred through increased inspection/ eradication procedures will be passed on to consumers.

2.6 While we believe that upgraded procedures to maintain New Zealand's border security might justifiably be accompanied by cost increases we also believe further research should be conducted to determine the true magnitude of the risk that pest organisms associated with imported vehicles present to New Zealand border security to ensure additional procedures and therefore cost increases are kept to a minimum.

2.6 The Forum also believes that insufficient information has been provided within the Risk Analysis document in regard to probable cost increases that would be necessary to account for additional measures that might be implemented to ensure adequate inspection and eradication of pest organisms is achieved.

2.7 The lack of relevant costing information may be to the detriment of prospective or existing vehicle importers, as it does not enable importers to accurately evaluate the financial impacts of increased inspection/ eradication procedures, which therefore might not enable the importers to budget or fully plan for increased importation costs.

3.0 **Air Filter Inspection**

3.1 The Risk Analysis document contains the suggestion that imported machinery may be required to have air cleaners replaced and/or cleaned as part of the inspection upon

entering New Zealand. We believe insufficient information has provided in regard to responsibility for the removal and cleaning/ replacement of filters.

Our concern is that unqualified personnel could interfere with air filters or may interfere with vehicles to access air filters. Our belief is that filter removal and reinstallation should be carried out by personnel deemed fit by the vehicle's manufacturer or the importer so as to avoid warranty/ insurance related concerns. This may also serve to reduce costs associated with filter removal, inspection and if necessary, replacement

VEHICLE COMPLIANCE ASSOCIATION, NEVILLE BOYD

Attention : Martin van Ginkel.

Re : Import Risk Analysis Report

The Vehicle Compliance Association represents 30 Independent Compliance Shops doing a significant percentage of the Entry Inspections,
in conjunction with the TSDA's.

These Compliance Shops are aware of the need to co-operate with Biosecurity New Zealand to protect the Integrity of our borders.
The Executive have tried to liaise with the Department over its needs & wants & these have basically not changed.
Unfortunately the Department have not been forthcoming with any of our requests to date.
It would now seem pertinent to restate these & to progress to a new level with the Department.

Our original requests stay the same.

1. We need an Identification Chart & accompanied Information Booklet for the pests that need to be Identifed.

2. We need a Chart with the procedures to be carried out if any pests are found.

Both Charts can be placed in a prominent position to facilitate speedy action, with phone mumbers for Biosecurity staff, the sprays to use etc.

3. We need a Bin to dispose of the pests, if they are to be kept for the Department.

4. We need an Emergency Pack with the required Sprays etc to follow the procedures.

In addition to this I believe it is time to declare all Compliance Shops as "Special Transititional Facilities" & to enter negotiation with the Department to allow this to happen. I'm sure that the parameters for this to happen can be speedily negotiated.

It is also time for the Employers and their staff to attend courses held by the Department, so as to accomplish the necessary expertise to carry out a satsfactory identification & disposal of 'nasties.'

Regards,

Neville Boyd.
Secretary,
Vehicle Compliance Association (Inc.)

Kevin Nalder (Biosecurity Adviser, Auto-Terminal International Ltd.)
PO Box 10302
The Terrace
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Email: knalder@autoterminal.com
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1. Background

Auto-Terminal International Ltd. (ATI) is a major exporter of used vehicles from Japan to many countries, including New Zealand. ATI strongly supports the general aim of reducing biosecurity risks to an acceptable level within a robust end-to-end risk management regime. Consequently, ATI has established pre-export procedures, based on a systems approach, with the aim of meeting New Zealand's current biosecurity requirements offshore. ATI will continue to work closely with MAF officials to further enhance the existing systems to meet future requirements.

ATI therefore agrees with and supports the general principle to manage biosecurity risks (and other regulatory interventions) offshore, however we do not agree with the strength of the proposed measures contained in the Import Risk Analysis documents. Instead, ATI supports the development of an enhanced systems based approach to manage the biosecurity risks associated with this pathway.

2. General comments

The extent and impacts of the proposed changes (viz. a mandatory treatment regime) have far-reaching consequences that need more in-depth analysis from technical, trade policy, and operational aspects. Although the current risk analysis documention appears to be thorough (i.e. due to the length of the document itself), it lacks a conclusive and technically robust argument for such substantive change. ATI therefore maintain that the current risk analysis outcomes:

(v) Are not technically justified and commensurate with real risks associated with this pathway (cf. commensurate with emotive and/or unknown risks); and,
(vi) Do not sufficiently generate viable alternative options (e.g. for enhanced "systems approaches") to achieve a equivalent biosecurity outcomes; and,
(vii) Is not sufficiently robust to withstand international government to government scrutiny once elevated into bilateral and multi-lateral channels; and,
(viii) Falls short on meeting a number of key international requirements (e.g. Sanitary/Phytosanitary (SPS) Agreement obligations).

Due largely to the uncertainties and scientific gaps associated with the current analysis, an over-precautionary (i.e. risk averse) approach appears to have been taken. Furthermore, Biosecurity New Zealand (BNZ) officials have pre-judged a likely mandatory treatment outcome from a very early stage (circa July 2006) in the process. This approach has constrained the proper consideration and development of viable alternatives (e.g. based on an enhanced "systems approach" model[1]).

1 ATI considers that the International Plant Protection Convention (IPPC) is the most appropriate framework for further developing a "systems based" approach. This can be achieved by linking to the various references to "regulated articles" (e.g. used vehicles) contained within the Convention itself and the relevant supporting standards (viz. *ISPM Number 14: The use of integrated measures in a systems approach for pest risk management*)

3. WTO-SPS notification and transparency obligations

Whenever a government is proposing a new regulation that may affect trade (or in this case, modifying an existing one), there is an obligation to notify the World Trade Organisation (WTO). Governments are required to submit such notifications at an early stage in the process. In this case, BNZ is acting in a capacity as a government agency developing new sanitary/phytosanitary (SPS) measures in the form of mandatory treatment(s) and other associated interventions. Consequently, New Zealand should abide by the notification provisions of the WTO-SPS agreement in all respects as well as actively engaging in bilateral/multi-lateral communications with respect to the risk analysis documents and associated measures. The used vehicle industry has limited capacity to provide in-depth technical comments on a document of this scope, particularly within the short timeframe given.

The current offshore pre-shipment programmes are ***voluntary*** – the proposed new mandatory treatment(s) and cleaning measures would be ***mandatory*** – this represents a very significant change and thus requires proper international consultation with affected government agencies of the exporting countries concerned. BNZs preferred option is also to "manage the risks offshore" thus bringing in to play various international agreements, obligations and standards. Consequently, it is in the interests of all affected parties to direct future communications via official exporting country government channels as much as possible. There is limited capacity within the industry to actively contribute at a technical level, particularly within the very tight timeframes imposed by BNZ in this instance.

In this regard, the consultation activities associated with the risk analysis for vehicle imports to New Zealand, including the proposed new mandatory treatment interventions, should include government to government engagement within the disciplines that guide the development, adoption and enforcement of SPS measures. Furthermore, the New Zealand government is obliged to discuss the technical justification of the proposed measures with the governments of affected trading partners and also to determine what international framework(s) is most appropriate for the adoption and enforcement of any proposed new interventions in order to minimise the negative effects on the current and future trade

The systematic communication of new information between trading partners is a fundamental requirement of the SPS agreement and New Zealand's consultation policy. ATI considers that BNZ has fallen well short of their SPS notification obligations in this instance.

4. Dispute settlement procedures

Specific SPS requirements can be challenged by another country(s) on the grounds that there is not sufficient scientific evidence supporting the need for new trade restrictions. ATI contends that there is not sufficient scientific evidence to underpin and support the proposed interventions.

In the case of the BNZ used vehicle risk analysis, the proposed measures are not only new but they are also very costly and trade restrictive compared with the current regime (or an enhanced version of the current regime). In order to advance further technical arguments, and proposals for equivalent measures (see below), proper engagement via recognised international

channels will be necessary. Since the WTO is an inter-governmental organisation, only governments can submit trade disputes through the WTO dispute settlement procedures. Non-government entities can make trade problems known to their government and encourage them to make redress. Consequently, should the proposed measures in their current form gain further traction and result in implementation, ATI (and other affected parties) will also need to direct future communications via the affected exporting country government agency(s).

5. Scope of the risk analysis

The current risk analysis document is a "whole of world" approach and fails to adequately address specific risks associated with different countries that may lead to different (e.g. targeted) risk management options. The SPS agreement requires that measures are adapted to the sanitary/phytosanitary characteristics of the area – the current approach fails to achieve this. For example, a specific risk analysis for Japan, and an associated import health standard, would allow better analysis of the real risks as well as providing a better opportunity to develop and fine tune other more specific and targeted measures (e.g. using an end-to-end, "systems" based model).

The proposed measures are not based on sufficient objective and accurate (SPS requirement) scientific data. ATI considers that more quantitative and species-specific analysis on the potential for entry and establishment is required to justify the costly interventions being proposed. For example, a quantitative risk assessment documented by NZ MAF (viz. *Used cars, vans and utility vehicles from Japan: An assessment of this pathway as a means by which gypsy moth may enter New Zealand*) concluded that probability of entry (and establishment) of gypsy moth via this pathway is "extremely low" and that other pathways (i.e. vessels and containers) "pose a grater risk than used vehicles with the probability of gypsy moth egg masses entering New Zealand".

Similarly, BNZ contend that the risks associated with *Trogoderma* spp. can only be effectively managed via a mandatory treatment intervention, however, this is not supported by any quantitative risk assessment or "benchmarking" against other (higher) risk pathways. Anecdotal identification information would suggest that most "*Trogoderma* spp." interceptions found in used vehicles are in fact cosmopolitan (and therefore non-regulated) pests of no biosecurity concern. This is not adequate to justify a mandatory treatment intervention, particularly if equivalent interventions are not imposed on other pathways. During the review period, BNZ could have (and should have) gathered actual and confirmed interception data to support the current arguments associated with *Trogoderma* spp., to properly draw conclusions and to justify, or otherwise, the proposed measures. The same is true for many of the conclusions drawn for other hazard organisms.

There is currently no clear evidence to support the claim that "…. even low frequency contaminants are likely to arrive at a frequency that results in establishment". If this statement did hold true, there would already be a significant number of (high consequence) pests established in New Zealand. BNZs own "slippage survey" data shows that most of the biosecurity contamination is low risk and does not support the strength of the proposed measures.

6. Implementation issues

As mentioned previously, BNZ appears to be by-passing the traditional framework of government to government bilateral discussions in relation to the used vehicle review and the associated recommendations contained in the risk analysis documentation. This in itself sets an

unusual precedent. BNZ appears to be prematurely *relying on the services of non-government entities* on a number of fronts including:

- The provision of technical information to support (or otherwise) the outcomes from the risk analysis process.
- The use of commercial companies as a substitute for consulting with official government agencies.
- The adoption of SPS measures (i.e. official treatment interventions) outside of "official" certification activities.
- Possibly using (so-called) third party inspection bodies for some monitoring/enforcement activities.

This raises some very important trade policy issues that have yet to be fully considered. ATI supports the notion of third party inspection regimes and strengthened industry-led compliance systems. However, the absence of an appropriate policy platform and supporting infra-structure of standards is currently a limiting factor but it is something that should be developed over time.

Other more specific implementation issues will need to be considered in more detail once the revised risk analysis outcomes (i.e. post-consultation) have been determined, signed-off by an appropriately qualified chief technical officer (CTO) and covered in a revised import health standard(s). In summary, these implementation issues will include:

- The significant commercial compliance cost implications (i.e. both direct and indirect costs).
- Environmental impacts (e.g. Montreal Protocol compliance issues) associated with the treatment proposals (for both exporting counties and New Zealand).
- Severe restrictions to current trade volumes and/or measures virtually impossible to implement in a cost-effective manner.
- Requirements to review/implement new measures for other pathways to achieve the currently worded risk management objective (i.e. to manage cumulative and comparative risks).
- Managing SPS communication and implementation issues.

7. Consistency issues

With the objective of achieving consistency, countries must avoid unjustified or arbitrary distinctions in the levels of protection it considers to be appropriate under different situations (e.g. within and between pathways of similar risk). This is particularly important if such distinctions result in discrimination or a disguised restriction on international trade. The outcomes from the used vehicle risk analysis work will need to be consistently applied across other pathways to avoid possible "discrimination" issues. There are numerous examples where the application of equivalent measures (e.g. treatment interventions for pathways other than used vehicles) will have major impacts for other country:commodity pathways. ATI stands ready to submit information where equivalent measures may be required for pathways where mobile, low frequency, hidden and high impact pests are involved.

Should the proposed mandatory treatment regimes be implemented, it will be an expectation that BNZ will consistently apply new interventions across other high risk pathways with similar or greater risk for those "benchmarked" hazard organisms concerned.

8. Equivalence of measures

The relative cost-effectiveness of alternative approaches (e.g. measures to achieve an equivalent outcome) to mitigating risks need to be further developed before final implementation of any new measures. Since only member countries (cf. non-government entities) can "enter into consultations" with the aim of achieving bilateral agreements for the recognition of equivalent measures, NZ MAF is obliged to work with government officials of affected trading partners to advance any proposals for "equivalent" measures/systems to meet the desired biosecurity outcomes. The current analysis has apparently rejected a "systems based" approach to managing risks associated with this pathway, therefore, redress via "member countries entering into consultations" will be required. Discussions on equivalence again highlight the need for New Zealand officials to actively engage with affected trading partner government agencies.

ATI considers that alternative measures, based on a systems approach, can be developed and implemented to meet the risk management objective. However, further time will be required to develop these measures and actively liaise with exporting country officials (e.g. Japan MAF) so that appropriate inter-governmental "consultations" can be entered into.

In relation to more specific cost:benefit issues, the proposed NZ IER cost:benefit analysis should be an important input into the process in terms of the proposed measures. The timing of the economic cost:benefit analysis appears to be out of sync with proper process and should have been developed and released in parallel, and in support of, the import risk analysis documents.

9. Whole of government issues

ATI notes that there are several concurrent reviews and/or proposals for new interventions affecting used vehicle imports (e.g. biosecurity and emissions standards). The timing and cumulative effects of these measures will have significant impacts on the industry. It is therefore important that officials in the respective government agencies (i.e. MoT and MAF in this instance) are aware of, and where possible work together, to ensure that future regulatory frameworks embrace a whole-of-government approach and are underpinned by sound principles (e.g. least-cost, least-trade restrictive, acceptance of "systems approaches" to achieve required outcomes etc).

10. Procedural concerns

ATI is concerned about several due process issues associated with the consultation activities to date. As mentioned above, it has been evident from an early stage that certain BNZ officials have taken the position that a mandatory treatment regime is required. In fact, this position has been noted and advocated on several occasions in the past year or so – the final document supports this. Not only has this undermined the integrity of the process, it has limited constructive dialogue on the possible evolution of a regime based on a "systems approach" model – something that is supported by a number of affected industry parties and is successfully working for other pathways (e.g. fresh produce, sea containers and others).

It is also of concern that a member of the (independent?) peer review team is not only a strong advocate of a heat treatment regime for used vehicles but also has commercial interests in the future implementation of heat treatment systems. This raises potential conflict of interest issues and questions of undue influence on the outcomes of the process.

JAPAN EXPORT VEHICLE INSPECTION CENTER CO LTD, AARON TREADWAY

30-04-07

Reference: Import Risk Analysis: Vehicle and Machinery 7 February 2007

Aaron Treadaway
International Operations Manager
JEVIC
Yokohama

JEVIC Submission

Document Title: Import Risk Analysis: Vehicle and Machinery 7 February 2007

1. Background
Japan Export Vehicle Inspection Center Co Ltd (JEVIC) is an independent inspectorate and approved NZ MAF operator for the Pre-Shipment Inspection Program.

In 2006 JEVIC processed approximately 38 percent of the total imported volume of used vehicles into New Zealand though our facilities located in Yokohama, Kawasaki, Nagoya and Osaka.

In 2007 JEVIC recently established a facility in Singapore to meet the demand of used vehicle imports.

2. Questions and Comments to Risk Analysis
Section: 4 Potential Risk Management Measures

4.5.2 Heat Treatment
The conclusion from the HT section is that "…55-60ºC for 30 minutes is likely to be a practical measure for the treatment of vehicles…" but the recommended measure is for 60ºC for 10 minutes. Why is this?

As the pests such as Dermestid's and ants are often found under carpets and within linings rather than exposed such as an AGM egg mass is, how will the recommended rate of 60ºC for 10 minutes address these pests (when the temperature sensor in the carpets took 37 minutes to reach required temperature)?

Will all the carpets and linings be required to be stripped out of the vehicle prior to HT? And has any preparation time been taken into account when projecting the processing time for vehicles in conjunction with sensors?

4.5.7 Automated Wash
The conclusion from section 4.5.7 is "…considered an alternative to pressure washing in removing external accessible contaminants", although little more has been enacted in the Risk Analysis to explore this. JEVIC did offer to conduct a trial using the endo-scope, to describe the effect of the D-CON machine process on areas which were unable to be detected by visible

inspection. Unfortunately this offer was not taken up by BNZ. 4.6 Certified Freedom From The Hazards JEVIC and D-CON are currently undertaking a trial with BNZ, using a combination of the automated washing and an inspection by an ISO17020 qualified JEVIC inspector to provide an equivalent to the MAFQS regulatory inspection. JEVIC expect that this will be able to provide an approved treatment/equivalent system for the treatment and certification of the underside of imported vehicles. The results so far are pleasing, with a stop rate of 3.67 percent and all of the contaminants the vehicles having been stopped for would fall into the low risk category i.e. no live pests (Figure 1).

JEVIC submit that this trial should be included in the Risk Analysis, and to be taken into consideration for in the IHS review.

Figure 1: JEVIC D-CON interim trial results

Total 300 11 (3.67 percent)

JEVIC D-CON Trial Results 2007(as of April 26, 2007)			
Date	Total	Stopped	Details
7th March	100	5	SUZUKI SWIFT: Less than 5 leaves. MAZDA MPV: Less than a desert spoon of soil NISSAN TERRANO: Less than 5 leaves [removed during inspection] NISSAN TERRANO: Between 5-10 leaves SUBARU IMPREZA: Less than 5 leaves.
16th April	100	3	TOYOTA PRADO: Less than a desert spoon of soil BMW 318T2: Between 5-10 leaves. SUBARU LEGACY: Soil, medium (less than 1 cup)
20th April	100	3	MAZDA MPV: Less than 5 leaves. HONDA ODYSSEY: Twig/bark TOYOTA ESTIMA: Less than a desert spoon of soil
Total	300	11 (3.67 percent)	

Section: 35 Summary of recommended risk management measures

35.1 Recommended Measures for Imported Used Vehicles (Excluding Machinery and Vehicles Capable of Holding Water) Applied On or Offshore.
1. Vacuuming and Pressure wash:
Pre-cleaning is currently undertaken for over 90 percent of all vehicles pre-shipment inspected by JEVIC. This technique is a viable management system that clearly reduces the risk of contaminants entering NZ (Section 20.7.8). In addition, this allows the inspecting officers to view contaminants more clearly and improves efficiency.
2. Heat Treatment or Methyl bromide:
JEVIC questions the ability for either of these to occur, and at the same time meet international obligations such as the reduction in use of Ozone Depleting Substances (ODS), or reducing the carbon foot-print. As approximately 75 percent of all used vehicles entering NZ

currently undergo off-shore inspection in Japan, there is little in this document that explores the effects of Japanese regulations and commitments in these areas i.e. Japan's commitments to reducing the use of ODS and their MBr quota's and ability to complete such operations within Japanese ports.

Heat Treatment is a commercially unproven technique. Currently there are not enough machines capable of treating the 120,000 units per year imported in to NZ let alone a machine that has been trialed to handle anything more than 1 vehicle at each time.

The possibility of damage to vehicles has not been raised, and the manufacturers of the vehicles should be approached to determine the effects of the use of such a technique on the safety and general integrity of the vehicles. To date, what guarantees have the manufactures given that vehicles would be safe after being subjected to HT? It is JEVIC's understanding that although the required temperature is only 60 degrees, in order to achieve this temperature in specified areas on and within the vehicle, other areas are subject to much greater temperatures. What are these temperatures? And will manufactures of the vehicles provide certification of safety for vehicles subject to these temperatures?

The mass fumigation using MBr will require international agreement for operation in Japan. On-shore in New Zealand, have the practical legal areas been explored for using such a large amount of MBr? Because NZ has the ability to use an ozone depleting substance for quarantine treatments, this does not automatically justify the treatment of 120,000 vehicles per year. Has any international or domestic public backlash from the use of such a large amount of an ozone depleting substance been fully explored?

MBr can cause damage to the vehicles. What type of study has been completed to asses the safety and general vehicle integrity of fumigating the entire yearly import fleet? In addition to any safety concerns of people within the logistics chain, e.g. stevedores, transport operators, have not been addressed.

Have the relevant regulatory bodies in New Zealand, e.g. Ministry of Transport, been consulted as to their opinion to treating the entire import fleet? And what would be the effects of these treatments on the entire fleet over time?

4. Spraying of crash damaged vehicles with insecticide:
The term "crash damaged vehicles" would need to be defined; however why would there be a need for this to be completed after the vehicle has been through HT or fumigation as recommended?
35.3.1 "…treatment at 60ºC core temperature for 10 minutes is likely to be effective all arthropods…"
Given that the period for HT effectiveness against ant species is 55 ºC for 30 minutes, what evidence has been used to assess that a 5ºC rise in temperature equates to a 20 minute reduction in time for effectiveness of treatment for all ant species including the high consequence pest Red Imported Fire Ant?

Again with regard to the Dermestid beetles, with a rise of 5 ºC and a reduction of time by one third? Where is the documented evidence for this assumption?

Heat treatment is not considered a viable option with regard to operational facilities with high volume. Practical application of treatments off-shore has clearly not been not been considered, and is a large issue if feasible recommendations are to be made.

35.3.2 Risk management measures applied offshore versus onshore
Targeted measures instead of the current 10-day rule; there are currently two versions of the 10-day rule, within flight season (ramp inspection required) and outside the flight season (walk around only required). In addition MAF Quarantine Officers currently conduct a shipside visual inspection of the vehicles prior to loading (as well as the berth being previously inspected and approved). JEVIC would submit that the "out of flight season 10 day inspection" is not required as there is a pre-load inspection, and duplicity of inspections should be reduced.

JEVIC are in agreement that there is little basis for the 3m rule, and that this needs to be abolished.

JEVIC submit that the 12 hour requirement for inspection and treatment for vehicles to be inspected in NZ once discharged should be reduced to "immediately or as soon as practical within 6hrs". This will limit the window of opportunity for pest incursion and would bring vehicles closer in line to the recommendation that Heavy machinery be inspected on-board.

35.3.3 Improved facility and inspection/treatment specifications
JEVIC agrees that the NZ facilities require improvement, including both the initial inspection facilities available on the wharves and the transitional decontamination facilities. In many cases the surfaces (broken and potholed) are not appropriate for inspection and re-inspection, with inadequate provision of inspection infrastructure such as ramps and lighting.

It is staggering that such efforts can be taken to remove contamination from vehicles, only to have a 2mm sieve as the only requirement for water treatment. Full water treatment facilities would be expected for this type of transitional facility.

35.3.4 Definition of clean
JEVIC agrees with the logical summation made with regard to the definition of clean. This will assist the MAFQS in making informed rational judgments, and would like to see these identified contaminates included in the revised IHS.

35.4 Recommend Measures for Imported New Vehicles
JEVIC agrees with the summation that New Vehicles are considered a risk, and are not the same as used-vehicles except in the circumstance where the used-vehicle has been processed through the Off-shore inspection program. JEVIC further submit that any posttreatment/inspection requirements for used-vehicle's in the off-shore program (including facility requirements, loading checks, ship-side checks etc) should be applied to the New vehicles and are essential in maintaining biosecurity standards.

The disparity in processes applied to New vehicles and Off-shore Inspected used-vehicles has neither been mentioned or addressed in the Risk Analysis.

35.5 Recommended Measures for New and Used Machinery, trucks and Other Vehicles Capable of Holding Water.

JEVIC agrees with the need for increased training of Officers involved in the inspection of these types of vehicles and the requirement for shipboard inspections of non-Offshore inspected machinery. This type of on-board inspection has been required for some time, but there is doubt whether this inspection has been executed fully.

JEVIC submit's that cleaning of air-filters would adequately deal with any contaminant, and that the replacement of air-filters would prove to be logistically difficult. JEVIC would also question whether the replacement of air filters would become mandatory On-shore as well as Off-shore?

35.7 Other Recommendations
JEVIC agree with the recommendation that a higher awareness needs to be made to overseas stakeholders using information in appropriate languages.

35.8 Major Assumptions and Uncertainties
JEVIC agree with the assertion that Offshore Risk management is preferable to onshore management.

JEVIC would submit that Heat Treatment has not been used at all in the operational scale that is assumed in this Risk Analysis. JEVIC further question the wisdom of producing as the Recommended Measures a treatment which has not been shown to be commercially viable, available, safe, practical or legally operationally for the scale of treatment recommended.

Other Factors:
JEVIC questions the decision to include Mr. Gordon Hoskins as one of the reviewers for the Chapters 1-4, and Summary of Recommendations and Mr. Hoskins is heavily involved with Frontline, one of the major proponents of vehicle heat treatment.

With regard to the Cost-Benefit analysis; if the replacement or treatment of air-filters is not a Recommended Measure, why does a specific question appear regarding air-filters in the Cost/Benefit Analysis?

3. Summary
JEVIC is committed to the biosecurity safety of New Zealand, however are opposed to the some of the recommended measures set out in section 35.1, namely compulsory Fumigation or Heat Treatment.

Heat Treatment and fumigation should not be considered as the only current alternatives. As indicated in this document, positive results from other forms of treatment such as the JEVIC - D-Con Process have been illustrated.

It is simply not practicable to either chemically or heat-treat every vehicle. There are logistical problems, substantial cost increases, the possibility of not being permitted to operate such systems in Japan and also physical, environmental and safety constraints. Heat Treatment is logistically not feasible as a high volume solution. The effectiveness is also questioned with various contaminants not being effectively treated at the recommended regime.

There is a large area of vehicle safety in question, with either Heat Treatment or Fumigation being used on the entire import fleet. Are the vehicle manufacturers willing to certify that the

HT or MBr will have negligible effects? In addition, have the Ministry of Transport or Land Transport New Zealand been consulted?

JEVIC believe that keeping the risk off shore is important to the New Zealand environment, and therefore support off-shore clearance and recommend 100 percent pre-cleaning prior to inspection by a NZ MAF officer or equivalent.

END

BIOSECURITY SOLUTIONS LTD, LANCE DEAR

Submission to: Ministry of Agriculture and Fisheries (MAF)
Subject: Import Risk Analysis: Vehicle and Machinery

Title of Document: BioVapor Heat Treatment of Vehicles and Machinery
Submitted by: Lance Dear, Bio Security Solutions Ltd (BSL)
Date: 28 March 2007

BSL owns the technology of the BioVapor Heat Treatment system and the company has been running a small trial heat treatment facility in the Ports of Auckland since November, 2006.

Over this time more than 100 imported used vehicles have been treated in the facility with 100 percent success rate. There has been no damage to any of the cars treated with the BioVapor system and this includes vehicles with complex electronics like navigation systems, DVD players and high-spec luxury vehicles with full electronics and electrical options. There has also been no deleterious effect on vehicle interiors and trim including leather upholstery. A large range of vehicles types have been treated over this time including two and four-door passenger cars, SUVs, 5-door people movers, small vans and utility vehicles.

The cars have been treated for a number of organisms including Ants, Moths (including the Painted Apple Moth), Spiders, and Trogoderma. In all cases the BioVapor treatment has been 100 percent effective in killing all organisms present and this trail period has conclusively proven the efficacy of the BioVapor system for the heat treatment of imported vehicles. .

The vehicles have been treated to the following heat standard:

Name: Used Vehicle Treatment for Arthropods
VCE4 - 54^0C (min) for 10 minutes.

The following is an example of a BioVapor treatment graph on a used vehicle:

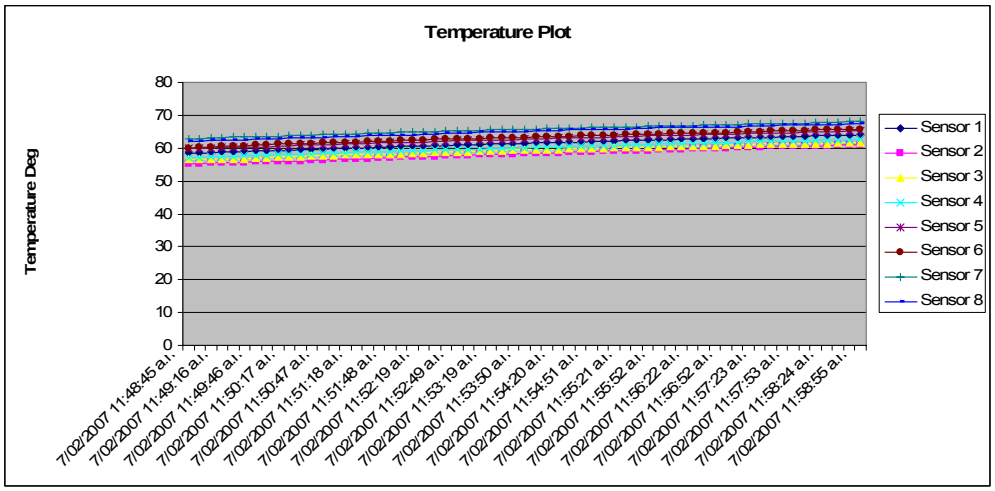

Figure 1 - BioVapor Treatment 7049 VW Golf 070207 POA

There has been very positive interest and feedback from the vehicle importation companies and the clients for whom we have treated cars to date have found heat treatment to be preferable to methyl bromide. The factors for heat over bromide are;
(i) Treatment times are fast. (Approx 30mins per car) and therefore importers can get their cars off the wharf quickly and typically on the same day as the treatment is requested.
(ii) BioVapor leaves no residual smell as opposed to chemical treatments. BioVapor also leaves no lasting impregnation of chemicals in upholstery or trim.
(iii) BioVapor is chemical free and is environmentally friendly and health friendly for operators.
(iv) Heat is able to penetrate through metal unlike MBr.
(v) Heat is able to treat for Arthropods, viruses and bacterial simultaneously.
(vi) The BioVapor uses direct-flame technology resulting in a very fast ramp-up time, is very fuel efficient and does not lose energy through inefficiencies of heat exchanger systems.

Based on the very successful trial of the BioVapor system to date, BSL are in the advanced stages of designing a larger facility able to process several cars simultaneously with an expected throughput of 150 cars per day from each system. The design of the BioVapor system is such that multiple facilities can be run in parallel to provide total throughput of 300 or 450 cars per day per site, dependent on volume requirements. The advantage of having multiple systems running in parallel is the potential for scalability due to the erratic and seasonal demands of imported cars and the potential for multiple shipments arriving at any one port simultaneously.

In the event that a high volume of imported vehicles are to be heat treated due to the import risk analysis, it is expected that the cost for BioVapor heat treatment will be significantly less than that of Methyl Bromide treatment.

It is expected that the heat treatment of all imported vehicles will be required at almost all ports around New Zealand and that treatment facilities will also be required offshore at the point of origin for many of the imported vehicles. It is further expected that any single heat treatment facility would be required to process volumes of up to 300-400 cars per day providing a capacity to move up to 1,000 cars in a 2-3 day period after landing.

It can be concluded therefore, that the BioVapor heat treatment technology can be rapidly and cost effectively implemented in order to meet the volume and throughput requirements for 100 percent treatment of all imported used cars. It can be further concluded that the BioVapor heat treatment system will be more cost effective with a faster throughput than methyl bromide treatment.

FRONTLINE BIOSECURITY LTD, DR GORDON HOSKING

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General comment.

The project team is to be congratulated on a thorough and comprehensive risk assessment. The document provides good background material on the characteristics of the risk pathway and the current risk management measures. It also presents very valuable data on the efficacy of current measures. Section 4 dealing with potential risk management measures provides a balanced assessment of the advantages and disadvantages of alternative strategies and the operational implications of treatment regimes. The risks posed by various organisms are well considered within the limits of literature and data that is available.

The specific comments made below relate primarily to my area of specific concern. risks from imported vehicles and machinery to the forestry and forest products sector. As a result the insect groups Coleoptera and Lepidoptera, and micro-organisms, are of particular interest.

Specific comments.

Coleoptera. While beetles of forestry importance are probably relatively rare imports in vehicles and machinery, most entering in wood and bark material, the group does contain some very serious pests and vectors of forest diseases, as noted in the analysis. For this reason I believe any proposed risk mitigation measures must effectively address this group both directly by treating unconstrained adults, and indirectly through the treatment/removal of host material.

Lepidoptera. Lepidoptera are considered by the forestry sector as potentially the most serious risk group which are known to utilise this pathway. Past experience has shown lymantriid moths, including gypsy moth and tussock moths, to be regular interceptions on used vehicles. The pathway may also have been the one to deliver white-spotted tussock moth into Auckland in the 1990s and later gypsy moth into Hamilton. The habit of lymantriids to lay egg masses on any part of a vehicle, many sites which are difficult to detect by visual inspection, argues for robust risk management measures which will ensure all parts of the vehicle are insect free, a situation that cannot be achieved by even the most intensive visual inspection. Fumigation or heat treatment are the only really practical options currently available.

Micro-organisms. Micro-organisms will continue to be a challenge to risk management both from the risk assessment and risk mitigation points of view.
While visual inspection is a poor strategy, we lack considerable data on the efficacy of alternative strategies such as fumigation and heat. There is little doubt if one component of risk from this pathway requires greater definition and development of mitigation measures, it is micro-organisms. From the forestry sector point of view significant soil contamination is seen as a serious risk.

New vehicles. While it is accepted that the risk posed by the new vehicle pathway has been specifically excluded from this review, the lack of and IHS for new vehicles is seen as a significant anomaly in risk management. Some of the most significant risks to forestry, lymantriid moths, can equally affect new vehicles when they are stored in the open environment. In fact the current storage time constraint on the shipping of used vehicles indirectly acknowledges this risk. We believe new vehicles should be treated no differently than used vehicles despite the accepted lower risk.

Fumigation. As Biosecurity NZ staff are well aware there is a major effort underway by the forestry sector to reduce the use of methyl bromide for forest produce. Should methyl bromide fumigation be allowed as an option for mandatory treatment of used vehicles, and should it prove to be the least expensive option, in excess of 100 tonnes of methyl bromide could be added annually to New Zealand's usage (a 50 percent increase over current use). While alternative fumigants such as sulfuryl fluoride might overcome the environmental concerns associated with methyl bromide, the increasing social pressure against the use of fumigants near populated areas makes any form of fumigation undesirable.

Heat treatment. Frontline Biosecurity does of course have a vested interest in the use of heat treatment for biosecurity risk reduction. This does not alter the fact that heat is known to be effective against a wide range of risk organisms, is operationally a practical treatment, and is of very low environmental impact. Internationally heat is increasingly being seen as a simple, effective, and widely acceptable means of risk reduction in both the quarantine and market access area. It is our view that mandatory heat treatment of all used vehicles and machinery would be a major step forward in reducing the biosecurity risk from this pathway. While accepting that no strategy will reduce the risk to zero, what is needed is the biggest gains for the least cost, economically, environmentally, and socially.

In conclusion.

We consider the current risk assessment to be a very significant step in reducing the risk of new organisms being introduced into New Zealand via the used vehicle and machinery pathway. We are keen to see the potential of this fine effort realised by the introduction of risk reduction strategies that greatly improve on the current discredited procedures. Frontline Biosecurity has actively campaigned over the past 7 years for effective action against this high risk pathway, and is pleased to see the promise of real progress.

JAPAN FUMIGATION TECHNOLOGY ASSOCIATION, DR FUSAO KAWAKAMI

The following is our proposal for quarantine measures for used vehicles exporting from Japan to New Zealand:

1. Summary of the Proposal

To gather used vehicles to be exported to New Zealand, at major ports in Japan which have heat treatment facilities; and to give heat treatment to all of them. By this, the slippage could be reduced; and New Zealand's biosecurity would be dramatically improved; and it would help smooth import process in New Zealand.

2. Current situation

1. In the case of quarantine checks conducted in Japan to a vehicle, where contamination is found; fumigation with methyl bromide is given to the concerned vehicle at an exporting port in Japan or an importing port in New Zealand.
2. In the case of quarantine checks conducted in New Zealand to a vehicle, where contamination is found; fumigation with methyl bromide is given to the concerned vehicle at an importing port in New Zealand.

<Demerits>

(1) There are limitations of visual inspections, because of complex structure of a vehicle. Possibility of the slippage is high, and would risk invasion of pest.
(2) Quarantine checks and treatments are time consuming, and it prevents smooth import process of used vehicles.
(3) In the case of methyl bromide fumigation in Japan, it takes long time (5-6 days) for confirmation of safety residual gas concentration, because of strict safety standard. (Maybe it would not be safe enough releasing after 24 hours without checking gas level in New Zealand.)
(4) MAF New Zealand needs to send many inspectors to Japan, therefore incurring more costs.

3. Suggested quarantine system

Process

Gathering vehicles to major ports in Japan ⇨ LTNZ Check and Vacuuming/ pressure wash ⇨ Heat Treatment ⇨ To place certificate stickers

Service Providers

Pre-shipment checking companies ⇨ Treatment Service Providers (*1) ⇨ JPQA (*2) JAFTA (*3)

Reports

LTNZ Check and Vacuuming/Pressure Wash Completion Report

Treatment Completion Report

6. Pre-shipment checking companies conduct LTNZ Check and vacuuming/pressure wash to all used vehicles to be exported to New Zealand, and send confirmation documents to Treatment Service Providers.
7. Treatment Service Providers conduct heat treatments to the all vehicles. Japan Plant Quarantine Association (JPQA) will send their staff and check if treatment is satisfactory
8. After the heat treatment, a certification sticker of vacuuming/pressure wash and heat treatment is given to appropriate vehicles by JPQA. The certification sticker is issued by the name of Japan Fumigation Technology Association (JAFTA).
9. JAFTA examines efficiencies of relevant heat treatment facilities, and then issue a certificate. JAFTA also will provide technical advice and a training course to Treatment Service Providers and JPQA, and issue a completion certificate.
10. This quarantine system and treatment service can be organized at major ports in Japan. Its certification system would be administrated by JAFTA and JPQA, which are affiliated organizations of Ministry of Agriculture, Forestry and Fishery of Japan.

4. Suggested the way of treatment

1. To treat all vehicles to be exported to New Zealand in order to avoid the slippage.
2. To utilize the heat treatment method. In exceptional cases, such as a large size vehicle, fumigation with methyl bromide would be used.

<Treatment process>

Placing ⇨ Preliminary heating ⇨ Heating ⇨ Cooling

⇧ ⇩

⇦ ⇦ ⇦ ⇦ ⇦ ⇦ Removing

<Specification>

- Temperature and duration: 65±5℃ / 10 minutes
- Processing efficiency: 8 units/hour 192 units/day 50,000 units/year
- Temperature control of a heat chamber by rotational operation

*****In the case of an expected plant at Osaka Port

<Heat Treatment Fees>

- 11,000 yen/unit (for the fist three years)
- 9,000 yen/unit (after the first 3 years, if treated more than 120,000 units in the 3 years)

*****In the case of an expected plant at Osaka Port

<Merits>

7. No need to conduct quarantine checks (for all vehicles), as heat treatments to all exporting vehicles from Japan to New Zealand would have been completed.
8. The slippage would be largely decreased, and pest invasion risk to New Zealand would be dramatically decreased.
9. The importing vehicles process would be stabile and smooth in New Zealand.
10. Basically methyl bromide would not be used; therefore not harming the environment.
11. Safe and high quality of treatment.
12. Lower treatment cost through the use of high efficiency heat treatment facilities and intensive treatment operations.

*1: Treatment Service Providers:

Located throughout Japan, and currently providing mainly methyl bromide fumigation service to timber and produce. They are members of both Japan Plant Quarantine Association (JPQA) and Japan Fumigation Technology Association (JAFTA). They will be heat treatment service providers of this proposal.

*2: Japan Plant Quarantine Association (JPQA):

An affiliated organization of Ministry of Agriculture, Forestry and Fishery of Japan. By Plant Quarantine Regulations, they act on behalf of MAFF Japan and support MAFF Japan regarding disinfection related services. In regard to this proposal, they will send their staff and check if treatment is satisfactory, and will issue a certificate sticker to each checked vehicle on behalf of JAFTA. (The certificate sticker issuer will be JAFTA.)

*3: Japan Fumigation Technology Association (JAFTA):

An affiliated organization of Ministry of Agriculture, Forestry and Fishery of Japan. They provide fumigation related and other technical advice to treatment service providers and plant makers. In regard to this proposal, they will check concerned heat treatment facilities, and issue a certificate. They also will provide technical advice and a training course to Treatment Service Providers and JPQA, and issue a completion certificate.
JAFTA will be issuer of the

PORT COMPANIES OF NEW ZEALAND, BARRIE SAUNDERS

April 30, 2007

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This submission is made on behalf of 15 port company chief executives that work together on public policy issues. They are the ports of: Northport Limited, Ports of Auckland Limited, Port of Tauranga Limited, Eastland Port Limited, Port of Napier Ltd, CentrePort Limited, Port Taranaki, Port Nelson Ltd, Port Marlborough NZ Limited, Lyttelton Port of Christchurch Limited, PrimePort Timaru Ltd, Port Otago Limited, South Port New Zealand Limited, Port of Greymouth and Buller Port Services (Westport).

Specific information has been received from the ports that handle most of the vehicles and machinery imported. As a general proposition ports are strongly of the view that biosecurity risks should be managed offshore wherever that is practicable. Where this is not possible MAF will need to determine which if any ports can accommodate treatment facilities, or how vehicles will be transferred to off wharf sites for processing.

Main recommendation: As the impact on ports and importers from the proposed changes to health standards for used vehicle and machinery imports treated here would be major, we suggest that MAF run workshops with the most relevant ports and importers prior to drafting the revised import health standards.

In respect of the three specific questions asked ports respond as follows:

Used vehicle imports

Risk assessments. We are not able to make a meaningful comment on the assessments. However we suggest the risks associated with raising vehicle temperatures to at least 60c for at least 10 minutes, needs to be thoroughly investigated. A maximum temperature should be included if 60c itself is not deemed to be too risky.

Efficacy of risk management. We can comment on the practical aspects of the proposal in respect of the impact on port companies.

The preferred package of measures would have major implications for port companies for those vehicles or machinery that are not treated offshore, which is strongly preferred. . There are two broad options for these categories of vehicles. The vehicles could be treated and inspected on the wharf area or at another location, most likely a compliance workshop which would have to become a MAF transitional facility.

Compliance workshops: The workshops could add MAF requirements to their existing roles. However in order to manage the transit risks, the vehicles would have to be carried in trucks or trains that were secure from a biosecurity perspective.

Ports: Each port's ability to process vehicles is different and depends on volume and area considerations. The major receiving ports are POAL and LPC. Both are seriously constrained and do not have wharf areas that could handle large volumes of vehicles that required the proposed heat or methyl bromide treatment.

Ports of Auckland Limited

- Used cars volumes through Auckland vary between 100,000 and 120,000 per year.
- Car vessels tend to bunch up with at times up to 7,000 vehicles being discharged over a week. The actual capacity of the dedicated car wharves is far less than that; however cars are stored in other often inappropriate parts of the Port.
- In recent years there has been an increase in pre-inspected vehicles so that about 65 percent are pre cleared. This considerably assists in rapid clearance off wharf.
- The two further constraints that often result in longer dwell times are. Capacity for MAF to provide a timely service 24/7 all weathers and a shortage of trucks and drivers during peaks or at holiday periods.
- The result is periods of severe congestion now (even though car volumes are relatively soft).
- Ports of Auckland's container business has expanded rapidly in recent times which creates further pressure on space for conventional cargo. Furthermore there is ongoing political pressure to release wharves currently used for cars to the city of Auckland.
- The proposed increased treatment required would not be able to happen at the Auckland wharves without enormous disruption to the shipping lines which would need to wait for extended periods while space was made clear.
- 2115 used cars per week would require say 1.5 hours to process, therefore extra car hour needed 3,172 hrs, if they were all processed at the port. Even if a processing system could cut the extra time 10 fold, the problem is huge.
- If vehicles could be moved off wharf for processing elsewhere then a whole new transport regime would be required that would involve rail and an increase in trucks, but would risk contamination during the transport phase, unless carefully managed.
- Rail transport to an offsite clearance location has been investigated and would add costs of around $100 per vehicle. That study occurred about 18 months ago.

Extra facilities

- Ports of Auckland has investigated ways to increase capacity. This includes further seabed reclamation and the building of high density car parks(stackers)
- The reclamation option is not feasible due to resource consent requirements and very high costs as well as significant lead times
- Car stackers could be a viable option but are relatively expensive. Indications are a 1500 vehicle building would cost between $15,000,000 and $18,000,000 to build and lead times are around 10-12 months.
- Several such stackers would be required to deal with suggested processing on wharf.

Finally one option included the use of methyl bromide which we believe that would not be an option on the Auckland waterfront, due to the close proximity of residential buildings and bars, restaurants etc. Waterfront unions would also total reject working with or near to a facility using such treatment.

Lyttelton Port Company of Christchurch

LPC handles around 40,000 vehicles a year which makes it the second largest port in respect of vehicle imports. The port is very constrained in terms of space and treatment of large numbers of vehicles at the port, as proposed in the preferred option, is probably not viable. Transferring the vehicles to a compliance centre would work provided the appropriate fleet of trucks was available.

CentrePort

CentrePort handles between 25-35,000 import vehicles per year. Accommodating these volumes on the port provides a number of logistical challenges. Under the proposed preferred package of measures, CentrePort would not only be impacted operationally, but also commercially.

Other ports

Other ports handle much lower vehicle volumes. This makes it relatively easier for them to consider the treatment in the preferred option. However heat treatment for instance would involve significant capital expenditure and this may not be viable, particularly having regard for the uneven flow of vehicles through these ports.

Alternative package of measures.

The alternative package of measures is a significant enhancement of the existing process. We note that on page 5 the paper says the alternative package of measures is not recommended because it will be less effective with high risk ants, moths, reptiles and spiders. But the paper also said “it is likely to be more efficacious for plant seeds and snails”.

In making policy Biosecurity NZ should have regard for the economic impact of the import trade over the short and longer terms. The radical nature of the proposals in the preferred option would be very costly and potentially disruptive to the trade. In addition they would require a significant lead in time for the facilities to be created and become operational.

New and used vehicle imports are an important part of the transport industry. Radical change could damage seriously key components of this trade and cause business failure and loss of jobs.

For these reasons the port companies suggest Biosecurity NZ ensure that any changes are introduced in a way that is manageable by the industry and does not cause significant job losses and business failures.

Recommendation: Biosecurity NZ adopt the alternative package of measures and, after a period, revisit the extra elements in the preferred package to determine whether they are necessary in the current form.

New vehicle imports

Agree with the proposed approach

New and used machinery, trucks and other vehicles capable of holding water

The interim package of measures is a radical change on the status quo. Whether the steps proposed are cost efficient is not something port companies can comment on. We recommend there be a thorough costs benefit analysis of the proposed interim steps because their impact will be major.

After this analysis has been done port companies believe that Biosecurity NZ must introduce any changes in a way that does not disrupt the trade, because that could create as much economic damage as the biosecurity risks. The New Zealand economy has benefited enormously from the importation of used trucks and machinery and this trade should be allowed to continue alongside reduced biosecurity risks.

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PORT OF TAURANGA LTD, GRANT MACVEY

Subject: Import Risk Analysis : Vehicle and Machinery

Sender: Grant Macvey, Cargo Services, Port of Tauranga Ltd

To: Martin Van Ginkel, Biosecurity New Zealand, Wellington

Dear Martin,

Treatment of Imported Vehicles and Machinery

The Port of Tauranga fully supports any initiatives,which provide more security against the incursion of pests into New Zealand. As the facility which handles the largest volumes of forestry products and kiwifruit in New Zealand, we are fully aware of our responsibility to do everything possible to protect these industries from harm.

The Port of Tauranga has already advised Biosecurity New Zealand that any form of treatment for vehicles and machinery should be carried out offshore. New Zealand's ports simply do not have the room to provide the facilities required for this type of operation to be carried out efficiently. Severe congestion is already being experienced on our wharves and the introduction of a further "bottleneck" would be disastrous.

We are totallly opposed to any scheme, which further increases the use of methyl bromide, when other, less harmful fumigants are available. We understand that the Government currently has a working party investigating alternative fumigants to methyl bromide,which is a known ozone-depleting gas. Phosphine, for one, is already being used to fumigate logs whilst on passage from New Zealand to China and a processed form of phosphine is widely used in Chile, where its properties allow fumigation of fruit and vegetables without interruption to the cold chain.

Whilst heat treatment is effective for killing insect life, it has been disclosed that heat treatment does not necessarily kill off all "plant" type contaminants. We fail to understand how this form of treatment could be considered in isolation.

The Port of Tauranga Ltd appreciates the opportunity to take part in the consultation process. We do wish to be involved in any future discussion with regard to treatment procedures and, more importantly, where these should take place.

Regards,

Grant Macvey

KIWI CAR CARRIERS, RUUD KLEINPASTE

IMPORT RISK ANALYSIS - VEHICLE AND MACHINERY

Kiwi Car Carriers supports the set of measures as outlined in 35.2 of the 'Summary of Recommended Risk Management Measures'.

In recognizing the importance of this 'Risk Analysis' to both the New Zealand environment, and to the Used Motor Vehicle trade, we engaged the services of a well known and respected entomologist, Mr Ruud Kleinpaste (who has compiled his own analysis of 12 pages, and is attached). On the basis then of what Mr Kleinpaste has offered as professional insight, and based also on our own experience and research, we provide the following:

35.1 (1) – VACUUMING AND PRESSURE WASH:

This is currently undertaken at all Kiwi Car Carriers 'Off-shore' facilities in Japan, and we believe should continue.

35.1 (2) – HEAT TREATMENT

Firstly, we would like to register concern to note the presence of Mr Gordon Hoskings on the Advisory Board. It is well known that Mr Hoskings has at least an intellectual (if not also financial) interest in a Heat Treatment machine. This most certainly suggests a potential 'conflict of interest' in championing this proposed method of mandatory treatment.

There is much debate as to the effectiveness and significance of such an expensive and time consuming process. Notwithstanding the financial and environmental constraints of introducing this system of 'partial' decontamination, there is expert opinion that neither the proposed temperatures and/or the time exposed will be sufficient to eradicate the target pests. (Any higher temperatures are likely to adversely effect the vehicle interior).

Kiwi Car Carriers investigated the possible introduction of such Heat Treatment machinery into Japan some years ago. This was in fact the very same machine and process in which Mr Hoskings of the Risk Analysis Advisory Board to MAF BNZ, was involved with.

We carefully studied the ability to setup such machinery within each of our 4 Ports in Japan. One of the first constraints we discovered was the restrictions applied by individual Port Authorities, There are constraints on most Ports (majority of Off-shore facilities in Japan are operated on public port areas), use and supply of electricity, gas, diesel etc. These restrictions still apply today.

In further reading the 'Risk Analysis' documentation, it is noted that "Ants" are targeted for 'Heat Treatment'. It is agreed that the Used Vehicle Pathway could contribute to the number of ant species entering New Zealand. However we believe that the current methods employed (visual inspection, vacuum cleaning, and combined with fumigation where deemed necessary by MAF Inspector, sufficiently mitigates this group as a risk. The thorough vacuum eliminates the human food residues in each vehicle that an ant may live on. (It should be noted that ants

can colonize New Vehicles as easily as Used Vehicles, and yet no proposed 'hard measures' are proposed for this 'pathway').

Expert opinion suggests that during heat treatment (of the nature proposed), any ants in a subject vehicle will naturally seek the 'coolest' hiding places. A constraint of the 'Heat treatment' process is that once the vehicle cools, any pests located in any such 'hiding' places will simply venture out of hiding. We believe that a more significant 'catch all' treatment would be the use of residual sprays and permethrin fogs. This would also stop pests from having the potential to move from vehicle to vehicle. With heat treatment, once the vehicle has cooled down, there is little to stop that unit becoming re-infected.

35.2 – OTHER MEASURES CONSIDERED FOR USED VEHICLES

As stated at the outset of this report, Kiwi Car Carriers supports this realistic and achievable set of measures contained within this section of the 'Risk Analysis'.

35.3.1 METHYL BROMIDE FUMIGATION OF HEAT TREATMENT

Methyl Bromide is no longer a commercially viable fumigation option available in Japan. The use of this product is both strictly controlled and licensed, and in the process of being phased out of use altogether.

In this section, the 'Risk Analysis' report itself admits that 'Heat Treatment' is not considered 100 percent effective. For many of the pest 'risk groups' where 'Heat treatment' is not then effective, the use of residual insecticide is likely to be more valid and effective. Over the past 25 years, MAF have researched and developed a good system for aircraft disinfection involving residual sprays and pyrethrum fogs. None of this technology seems to have been seriously explored in the 'Risk Analysis' (apart from a recommendation to conduct some further research). Kiwi Car Carriers are already attempting to assist this research by conducting 'live' trials on vehicles carried to New Zealand (under the guidance of Mr Kleinpaste and with the knowledge and assistance of MAF NZ).

35.3.2 - RISK MANAGEMENT MEASURES APPLIED OFFSHORE…

The 'Risk Analysis' document itself states:

"Offshore management is preferred for the majority of hazard groups".

It is clear that the financial and time constraint burden that Off-shore operators such as ourselves would face if treatments such as the use of 'Heat' machinery, can result in operators simply 'closing' operation in Japan.

'Risk management' is surely about using the best 'proven' methods of pest detection, applied across all the fundamental measurements that any enterprise must face as a study in viability.

As 95 percent of all imported used vehicles originate from Japan, we wonder why a 'Risk Analysis' that covers the whole Globe has been created? Surely the number of 'pests of concern' from Japan is far smaller than the rest of the World put together. Given that every Country has it's own unique suite of 'hitchhikers', isn't there merit in taking a look at each Country – or certainly Japan, as one entity? Japan over the past 10 years has developed it's

own style of ‘off-shore quarantine’, which has shown to have some good and targeted advantages. Why not simply continue utilizing that?

35.3.3 – IMPROVED FACILITY AND INSPECTION

Kiwi Car Carriers agree with principals discussed in this section.

35.3.4 – DEFINITION OF CLEAN

We again reiterate our belief that the current improved methods of risk detection and elimination are ‘managing the risk’ to an acceptable level. This can surely be evidenced by the lack to date of any proof of establishment in New Zealand of any of the ‘Japan’ originating pests identified in the report.

35.4 – RECOMMENDED MEASURES FOR IMPORTED NEW VEHICLES

Infestation data on new vehicles are almost absent. This is one of the reasons that new cars have – from a Biosecurity point of view - a very “easy ride” into the country.

The most important biosecurity threats, assumed to travel to New Zealand on vehicles and machinery, are constantly referred to in the ‘Risk Analysis’ as “hitchhikers”. We wonder how these organisms consistently manage to prefer used vehicles to new vehicles.

Important factors that relate to “re-contamination” after greening of used vehicles:
*Storage facilities: covered or uncovered
*Nocturnal lighting attracting flying invertebrates
*Surface condition TRS; hard or soft – weedy or clean – muddy or sand
*Length of time stored;
*Flight period for AGM/spiders ballooning/seed release. etc
*Nearby plantations/forests/weed patches with insects and seed sources
*Unprotected slot drains/ponds with mosquito or frog habitat in vicinity
*Nearby lizard habitat
*Spare tyres lying around/Rubbish/Old timber
*Food remains/wrappers/packaging with food etc

All the above factors relate to new vehicles too! A lot of the so-called hazard groups, mentioned in tables 1 & 2 (between pages 6 and 7) will find their own way onto new vehicles too.

35.5 – 35.8

Within these sections there is mention of a further video-scope survey to be undertaken.

It is worthwhile pointing out here that a great deal of the recommendations in the overall ‘Risk Analysis’ quote ‘findings and assertions’ based on the original “Used vehicle video-scope’ survey carried out in 2006.

That video-scope report shows that only 14 pre-cleared vehicles ex Japan were found to have contaminants: small amounts of dried plant material, some pine needles and a bit of soil. The

fact that no egg masses (or any other evidence) of Lymantriid moths were found in the "slippage" or video-scope surveys of pre-cleared vehicles, is never mentioned as a possible indication that the cleaners and inspectors in Japan are doing *some things right*.

The video-scope detected soil, seeds, leaves etc in hidden locations. What is the evidence though that these "contaminants" spontaneously leave these hidden locations in the country of destination?

Slippage was determined for cars that were inspected and cleaned offshore. This presumably gives some kind of measure of the efficacy of the cleaning and inspecting system in Japan. Many people in Japan wonder if a "slippage survey" was also carried out on the on-shore inspection and cleaning system in New Zealand. The reason is simple: frequently BNZ and MAF argue that Japanese workers are not as reliable as New Zealand employees when cleaning vehicles to New Zealand's Biosecurity Standard… (apparently to do with pride for the country?)
A lot of data, generated in the video-scope survey(s), were obtained "after modelling", but frequently the *modus operandi* of that "modelling" is not revealed. This not only makes the video-scope report less credible, but also the Risk Analysis itself.

No actual study has been made by BNZ on the actuality of risks associated with contaminants found in air-filters, and yet the recommendation is to replace or clean all air-filters found in this vehicle category. Kiwi Car Carriers has at our own cost, determined to produce irrefutable proof (either positive or negative), of the actual risk. This is by undertaking a controlled study (with Mr Kleinpaste) using actual seeds found in used vehicle air-filters. The results of this study will of course be shared with MAF and BNZ. This is surely a further indication of many conclusions being drawn in the 'Risk Analysis' based on assumptions rather than actual 'scientific' study. Kiwi Car Carriers are also the only operator in Japan that conducts a year round AGM trapping survey (and reports to MAF NZ), so that accurate and timely 'flying seasons' can be known and communicated. We are more than happy to be involved in whatever study(s) can or should be commissioned to take any further 'guess work' out of this 'Risk Analysis'.

There are "significant" gaps in the information that MAF/BNZ has to hand (frequency/numbers/new vehicles etc) about hitchhiking biosecurity pests. This must make the Risk Analysis' foundation somewhat shaky as it is based on "circumstantial brainstorming".

The constant use of the (emotive) terms "Wide range/many *contaminants*" gives the reader the feeling that used vehicles are absolutely buzzing with unwanted insects and rustling with mean, dead, dried old leaves full of wide-awake fungi and bacteria, ready to jump to life, the moment the cars are driven onto the wharf.

The truth is: there is very little hard data and the way BNZ is operating, those data are still not forthcoming when surveys (as recent as 2006) are specifically organized to gather those elusive data. Our knowledge and gathered data of Biosecurity risks on vehicles is *so* poor that assigning "risk descriptors" is not meaningful; so the authors make do with a blunt and often subjective guesswork instrument: "negligible" and "non-negligible" (p 13).

We don't even have data on what the contaminants were that caused MAF officers to order re-clean and re-inspections! Nobody took notes, apparently.

The common remark throughout the Risk Analysis is that the *frequency* of Biosecurity pests on used vehicles is very, *very* low. That this fact could be seen as encouraging for our efforts to keep them out of our country is obviously lost on the authors.
One of the more important and positive statements made in the Risk Analysis pertains the reference list of Non-Hazards (p 351).

KIWI CAR CARRIERS ADDITIONAL TREATMENTS FOR USED & NEW VEHICLES

The use of residual insecticides is an inventive measure that would deal with all the spiders and their webs, plus all crepuscular insects in all sorts of hidden places. Residual disinfection, the use of aerosols or CO2-driven synthetic and residual pyrethroids (with fine nozzles, delivering gaseous materials for cavities, or with droplet sprays for surfaces) is common practice in International Aircraft Disinfection. It was developed in New Zealand and approved right around the world. Yet in this Risk Analysis it is not floated as a possibility for treatment at all. (Suggestions for research with residuals to prevent recontamination are about as far as the Risk Analysis goes).
Recent pilot trials with *Eradicoat* pyrethrum show an impressive knockdown and kill, 8 months (!) after spraying. With this material (and the gaseous Permigas for cavities) the table on p 343-345 will read quite differently: ants, Dermestids, cockroaches and spiders will come under "likely to kill most". Although vacuum cleaning interiors is not regarded as sufficient treatment against exotic Dermestids, it is likely that with some added *Eradicoat* we can beat the longevity of the very rare *Trogoderma* grubs

CLOSING SUMMARY

For the reasons quoted in the beginning of our report, Kiwi Car Carriers does not support the use of a Heat Machine as a mandatory contaminant risk treatment.

We object to the apparent conflict of interest that the entire 100 percent mandatory Heat treatment concept is under with Mr Hoskings being part of the 'Risk Analysis' Advisory Board.

We support the (35.2) OTHER RECOMMENDATIONS… methods of treatment mentioned in the 'Risk Analysis'.

We support the 'Bio-vapour' Heat treatment option currently being provided on the Port of Auckland, as the alternative/replacement to MeBr. This being only for vehicles that have been separately identified by MAF Inspection to contain a regulated risk contaminant. Provided that this form of heat treatment meets MAF Biosecurity protocol to mitigate all risks.

We point out that the current timing of vehicles requiring heat treatment is a minimum of 30 minutes up to a maximum known thus far of 1 hour and 47 minutes. Obviously a commercial and practical impossibility on either the Ports in New Zealand or in Japan.

It should also be noted that if units were treated in Japan and then audited by MAF in New Zealand, and even one unit was found to have a regulated pest, the entire consignment of vehicles (up to 2,000 per vessel), would require re-inspection by MAF. Would MAF resourcing allow this within the regulated 8 hours of discharge from a vessel?

It has been recognized that sea containers and 'new' vehicles are 'risk' pathways. At the moment it is possible to transport uninspected/treated containers or new cars across the length of New Zealand freely. No cognizance is taken of the fact that either of these pathways are as much or more of a risk than second hand vehicles in allowing colonies of risk insects/plants to establish.

We wish lastly to point out the huge cost differential in the 'cost' to Operators of the 'Off-Shore' quarantine inspections, as opposed to those conducted 'on-shore'. We believe that if Biosecurity is serious about preferring risk to be managed 'off-shore', then Operators need to have an incentive to continue the high cost of providing the same. Currently there is no recognition of the savings to MAF NZ in having an ability to currently manage 75 percent of the Japan used vehicles imported, off-shore. Vehicles inspected by MAF NZ at the border in New Zealand attract an inspection fee of the same level applied in Japan, and yet significantly more resource in manpower and time is required to accommodate those border inspections.

Import Risk Analysis Vehicles and Machinery

Analysis commissioned by Kiwi Car Carriers – authored by Ruud Kleinpaste

1. OVERVIEW / INTRODUCTION

The Import Risk Analysis for Vehicles and Machinery is a large and impressive document that deals with an extraordinary large variety of so-called *Hazard Groups*, associated with the Imported vehicle and machinery trade.
The irony is that, in the absence of significant (hard) data (this is stated, throughout the document, with almost suicide-inducing repetition), most of the arguments in this Risk Analysis are based on "best guesses" and circumstantial evidence, badly kept interception records, many non-identifications and even mis-identifications.
A healthy dose of serious paranoia propels the hypotheses into orbit, shifting the idea of *managing* risks into the realm of *eliminating* or *annihilating* risks.

Yet, despite all this, the Risk Analysis makes a lot of good points and is well structured and well written.
Some of the tables are quite confusingly laid-out and the presentation of certain sets of data (especially data "worked" or "modelled" by BMG to show how many vehicles *could* have had a certain critter on board in the month of xx) is absolutely meaningless without scientific back-up.

Perhaps it is unfortunate that one of the review panellists (Gordon Hosking) has an intellectual – if not financial - stake in a heat-treatment machine. This may well constitute a conflict of interest.

The whole process of Risk Analysis has been following the modern path of "stakeholders input". Indeed, as mentioned under *Risk Communication* (p 15), the stakeholder meetings were conducted in a few key places. However there was no mention at all about the feedback

gathered at those meetings… and how much of that feedback has been incorporated in the Risk Analysis.
Mandatory heat-treatment was one of the biggest concerns flagged by stakeholders, yet this was not mentioned in the Risk Analysis. This is especially pertinent in view of the fact that BNZ made some semi-public statements (well before the Risk Analysis process was finalised) that heat treatment may well be the annihilation method of choice.
In a thinly veiled attempt to offer the stakeholders "an alternative" to heat treatment, MeBr fumigation was mooted as another form of risk *annihilation*. This can only be seen as silly and unfortunate, especially in the light of the current debate surrounding global warming.

The Risk Analysis not only covers all vehicles from all countries of origin, but also "equipment used in housing live stock, processing animals and animal products and plants and plant products from any country". This, no doubt, *adds* to all the complexities surrounding the lack of information on the various risks of all those hazard groups.
If 95 percent of all imported vehicles originate from Japan, why create a Risk Analysis that covers the whole globe? Surely the number of "Pests of concern" from Japan is far smaller than the rest of the world put together?
The much discussed *Latrodectus geometricus* find via the video scope is not only quoted *ad nauseum* in the document (and in the original BMG video-scope Report) it also seems to be the trump card in the whole argument for risk *annihilation* via heat treatment or MeBr fumigation. Of course, this spider does not occur in Japan and was found in a vehicle ex Singapore.
The "pests" of imported vehicles are not organisms that consume parts of vehicles (as with agricultural or horticultural products) but are mostly incidental hitchhikers. Seeing every country of origin has its own, unique *suite* of these hitchhikers, there's merit in taking a look at each country – or certainly Japan as one entity.
Japan has, over the years, developed its own style of "off-shore quarantine" which has shown to have some good and targeted advantages – why not keep utilising that?

There seem to be some glaring anomalies in the Risk Analysis: There's no mention of off-shore inspections in the "preferred version" of Recommended Measures (chapter 35.1), while this is certainly part of chapter 35.2 (Other Measures considered…).

Over the past 25 years, MAF have researched and developed a good system for aircraft disinsection involving residual sprays and permethrin fogs; none of this technology seems to have been seriously explored in the Risk Analysis, apart from a recommendation to conduct some further research.

2. COMMENTS ON SOME OF THE HAZARD GROUPS

2.1 Ants

Ants are indeed important. The number of species that are entering NZ is quite shocking and chances are that the used vehicle pathway could contribute to this.
Heat-treatment may not always be efficient in reaching all ants in all parts of the vehicle – like with a microwave oven, ants will select the cool spots, sit still and walk away again. Heat treatment also does not leave a residue: once it's cooled, the threat (from the ant's point of view) is gone.
Visual Inspection: Is likely to pick up a lot of infestations
Vacuum cleaning removes most of the human food residues the ants live on

Residual permethrin deposits on interior surfaces of vehicles and perhaps even on the radiator (to stop access to the dead insect bodies trapped there) is likely to be as good as heat treatment and … will be effective for quite a few months after the vehicle has been "cleared"
The idea is to confine the workers and queen to their hiding place and don't allow them to roam away from that site to find food; it also stops them from entering other vehicles, parked next door…
Around TRS: Baiting and ant control with Chlorpyrifos sprays may indeed reduce the "re-contamination" chances; Ants on the ships: Maybe good idea to take a look at that as well: Baiting and/or insecticidal treatments
New vehicles are hardly less attractive to colonising ants.

2.2 Bees and Wasps

Similar to ants: very important for our ecosystems and economic crops. They can also be quite dangerous from a human health point of view.
Visual Inspection is not always enough, judging from the post-border data; nests are found on a regular basis.
Gall wasps are easier to spot on leaves.
Pressure cleaning with water will remove most of the mud nests and other nests of Hymenoptera, but not the hidden ones.
Residual sprays are less effective on this group. It'll control/kill some of the overwintering/sheltering queens, perhaps, but won't always reach inside the nest to kill larvae or adults that are hiding; Wasps/bees usually fly and are therefore not too bothered by residual barriers on surfaces.
Permigas is a very useful option to disinsect inside bumpers and hollow areas of chassis/frame
New cars are just as likely to have nests as used vehicles! It's a matter of time on the TRS…

2.3 Beetles (excluding Trogoderma)

Adult beetles are not really a big "potential hazard" on used ***or*** new vehicles; their presence in cars (apart from the stored products pests) is totally accidental and not associated with cars at all…
The chances of surviving a journey on or inside a vehicle are slim; finding a mating partner on arrival in New Zealand may represent even higher odds.
Residual insecticide treatments will deal to them inside the vehicles.
Stored products pests are basically cosmopolitan and most species are established in NZ.

2.4 True Bugs (Hemiptera) – these days split into Homoptera and Heteroptera!

Really, this is a non-event group.
Most true Bug adults will have a great difficulty surviving without their host plants (unless they are skilled at diapause).
In that case some Residual insecticide (permethrin) will deal to them quick smart!
Larvae or nymphs of Heteroptera have usually no hope of surviving without their host plants, so removal of leaves and debris is of importance to stop them. The only group we should be worried about is the scales and mealybugs on relatively *fresh* plant material. Of course, Visual Inspection and Pressure Cleaning will remove those leaves.
A reminder: New vehicles are just as likely to "collect" fresh leaves as used vehicles!

2.5 Butterflies and Moths

Absolutely! Moths is one of the major Orders where it's all about, especially the moths that lay their eggs on car tyres and inside the rims: AGM (and *perhaps* some related species) in other words.
We've done them to death and we know more or less what we are battling here. The video-scope survey never detected any Lymantriids at all; this may be an indication that the offshore inspection and cleaning are perhaps doing *some* good, although this is never mentioned or credited in the Risk Analysis!
It would have been nice to see some form of analysis of interception records (or slippage surveys) comparing pre-cleaned and inspected vehicles off shore and vehicles that come in as "red" units or even as *new* vehicles.
It's still not clear what the role of vehicles is as a pupation site for some of those species – evidence is really lacking, especially as exactly the same assumptions can be made for the container pathway! The 2 records of dead larvae and one egg mass on a tyre (misidentification???) of fall webworm in 12 years of inspecting, doesn't strike as a huge amount of evidence.
Most moth species found (table 1, p. 107) are either lone adults, trapped inside a car, or egg masses of important species that are currently targeted.
Pressure cleaning appears to remove a significant amount of contamination (no finds in slippage survey)
Visual inspection will also take out most of the AGM eggs and other Lymantriids.
Residual Sprays: Live individuals *inside* a vehicle are easily dispatched with residual insecticides. The same materials, sprayed on the *outside* or *underside* will discourage moths from laying eggs on "greened" vehicles during the flight season;
Pheromone Trapping is a handy tool to identify flight seasons and – at the same time – keeps an eye on species other than AGM at TRS facilities

The emphasis placed on that little moth, Artona *martini* is quite over the top; The one pupa ever found inside the car is believed to be evidence for its mode-of-arrival in New Zealand, despite regular plant imports ("Lucky bamboo"?) over the past decade. Besides, is there no find of such a pupa inside or on the outside of a container? It damages bamboo, for crying out loud… *Bamboo*!!! One of the worst weeds in Aotearoa.

When accepting the Risk Analysis' arguments for Lepidoptera contamination, *new* vehicles would surely also be in the gun for pupae and eggs… But the ubiquitous suggestion (p. 131) of "Systems approach to the management of imported new vehicles, incorporating surveillance and appropriate storage yard maintenance measures…" is probably one of the weakest attempts to keep the new vehicles' reputation intact!

2.6 Dermestid beetles (i.e.: *Trogoderma*)

In view of recent detailed identifications ex Japan, it is still unclear if *Trogoderma* is a regular occurrence inside used vehicles. Carpet beetles seem to be the more common Dermestid found. Of course, vacuum-cleaning and hence, removal of the larva's food source will give them a hard time to finish their development.
Residual insecticides have hardly been tried in this case (they are so rare!!!), but are certainly worth an investigation with that long-lasting permethrin (Eradicoat). Even when the larvae or

pupae survive a long diapause, upon emergence their environment inside the vehicle will contain residues of the insecticide
There is no suggestion in literature that *Trogoderma* and associated exotic genera are showing any resistance to residual synthetic pyrethroids.

2.7 Mantids

Mantid egg cases are usually quite conspicuous and easily blasted off with pressure cleaning. Residual insecticide deposits are very effective on recently emerged nymphs.

2.8 Micro-organisms associated with soil, plant & animal debris, etc.

The immortal line on page 196 says it all: There is little information on the viability of micro-organisms associated with contaminants, particularly plant material from imported vehicles. "
No doubt, some of the fresher materials could harbour exotic life forms. Visual inspection will usually detect the offending leaves etc. *New* vehicles collect just as much leaf material as used vehicles!
However, dried substrates, especially those from engine bays and inside air filters (hostile environments) are unlikely to be a great threat at all. Of course in out-of-the-way places, contaminants may be hidden from view; but does this mean that these contaminants suddenly liberate themselves, as soon as the vehicle lands in New Zealand?
The mandatory replacement or cleaning of air filters on agricultural and forestry machinery appears somewhat premature, as no one has ever looked at these filters in great detail. This would be a great candidate for inclusion into chapter 20.8 (Uncertainties/Assumptions Summary).

2.9 Mosquitoes

Another one of those serious Orders of Insects that seem to pop up from time to time.
No doubt the water-holding capacity of vehicles is of importance here, since adults are unlikely to make a long journey in a dry and warm vehicle for many weeks.
Even if they did, a minute residual deposit of permethrin will be lethal.
Controlling mosquito larvae and pupae with permethrin could be tricky, especially since permethrin *per se* does not last long when exposed to UV light. Perhaps this can be explored a bit further to come up with suitable insecticidal materials.
The suggested 400 meter exclusion zone at the ports of arrival is, of course, an old WHO recommendation pertaining to airports *and shipping ports* (International Health Regulations – Article 19) and was highlighted as one of the key issues in the Ministry of Health's Report to the Minister for Biosecurity in 1997 (Exclusion and Control of Exotic Mosquitoes of Public Health Significance). In the light of recent finds at the Ports of Auckland, it has either become one of those "forgotten tasks" or it is simply not working at all…

2.10 Seeds

The incredibly long list of seeds retrieved from used vehicles sure is impressive. Yet the identifications are poor, to say the least. Tables 1 and 2 showed no hard numerical data. Viability of the seeds has rarely been tested (the Tetrazolium tests mean very little in the ecological world) and viability figures appear to be low. Interestingly, "Most of the seeds found to be viable were of species already established in New Zealand" (p. 252)

Table 3 (p.254) contributes nothing to our knowledge of contamination levels at all; no percentages are offered, no totals of vehicles inspected etc. The term "Live arthropods" means very little without identification
Interestingly when BMG tested viability (the chemical way) of seeds found in air filters, it appeared that viability was lower than in seeds found elsewhere on the vehicle. In view of the fact that the data were obtained "after modelling" we may not necessarily attach a great deal of value to these data.
Recent planting of all seeds found in air filters of used Japanese vehicles from Funabashi and Nagoya shows an overwhelming numerical dominance of Asteraceae and Poaceae. It also shows a viability of 2.3 percent to date.
This seems to back up the Conclusion on Establishment assessment: non-negligible but *lower* than for some other hazard groups.
There is no doubt that most of the non-airfilter seeds, associated with vehicles can be found through Visual Inspection.
High Pressure Cleaning will remove seeds as well as vacuum cleaning and hand picking from soft materials.
The recommendation to replace air filters on machinery is not based on data at all! The few that were opened, last autumn, showed to be remarkably clean. They may be positioned higher than in cars?
The recommended procedures for new vehicles "Systems approach incorporating surveillance, appropriate storage yard maintenance measures and decontamination where necessary…" is quite ridiculous. Is there no Visual Inspection needed for seeds, lodged in windscreen wipers etc? What is *actually* meant by surveillance… *inspection*?

2.11 Lizards and Snakes

There doesn't appear to be too many of those in vehicles from Japan: two live records of gecko in all interceptions (*Hemidactylus frenatus*) and one live snake (*Elaphe quadrivirgata*). The rest were all dead.
New vehicles are almost just as prone to having Squamata on board – so why only "Systems approach"?

2.12 Snails

The number of interceptions is really not that high; they are generally large specimens and hence detectable through Visual inspection.
None were seen during the video-scope survey (probably because they were blasted off by pressure wash?).
Pressure cleaning will likely take most of them off their substrate; if anything: the sudden increase in relative humidity may make snails dissolve their mucus membrane and wander off
If Visual inspection is recommended for used vehicles, why not for *new* vehicles? Snails are not too fussed about which car they slither up to. This "systems approach" is starting to sound a wee bit tiresome!

2.13 Spiders

Anybody who has ever owned a car, will be aware of that clever little spider, that lives around the rear-vision mirror, or near the indicator light, grille, number plate light (etc.). Web building is the very first give-away of the existence of such a hitchhiker.

Indeed, some of these web-builders can retreat inside a nook or cranny and remain almost invisible, but the web will *always* be visible from the outside… How else would that spider be able to catch prey and feed itself?
Non web-builders are bit more difficult to spot, as they simply leave very little trace indeed. Sparassids are a good example of such "foot hunters". (And their bites are very minor indeed and certainly not causing "social impacts")
Visual inspection is the start of the process, with every fresh strand of silk requiring treatment: residual insecticides such as permethrin will not only kill the offending spider, but also remain a barrier for web extension, hinder food gathering (necessitating vacation of the hiding places!), physical movement away from the residence and dispersal by larvae.
Contrary to the statements in the Risk Analysis, crepuscular spiders *can* be treated with residual insecticides: Permigas was initially developed as a semi-gaseous CO_2 driven permethrin fog that can be injected, with sufficient force, into enclosed areas where invertebrates may dwell or hide (door cavities, bumper cavities, "inaccessible" wheel wells etc.).
The discovery of *Latrodectus geometricus* widow and egg sac is intriguing: it is very hard to ferret out any detailed data on its find (what kind of vehicle, *where* on the vehicle, etc) and country of origin (Singapore?).
Even the original video-scope report (BMG/05-06/06) has no reference number for it (Table A3.2). Does the specimen actually exist? Is it preserved? Were the eggs in the egg sac viable? Did they, in fact, *hatch*? … Or could it be that this particular specimen was discovered *without* the use of the video-scope and simply by using Visual Inspection?
This video-scope report has some very anomalous tables, i.e.: the data presented in table A3.2 bear no resemblance to the spider finds in the main Appendix 2. If the current Risk Analysis is based on facts from that video-scope report, we should all fear for the level of accuracy.
Establishment of *Latrodectus* species has shown that, despite numerous cases of introduction of gravid females (weekly detections of black widows in USA grapes in the 1990-s; regular discoveries of one-off populations of red-backs, etc) the widow family seems to be struggling to get a foothold in Aotearoa.
New vehicles can obviously be managed by "systems approach"… This presumably means that spiders are not willing to balloon to new vehicles or colonise them when they are still gleaming?

3. USED VEHICLES Versus

BAGGAGE/PASSENGERS/CONTAINERS

The Risk Analysis adopts the creative term (invented by the Biosecurity Monitoring Group) of *Risk Units* (p 35). It is a system that attempts to quantify contaminants (without actual data) and compare pathways of introduction. Not surprisingly the vehicle pathway is declared the most dangerous one, compared to Air Passengers, Baggage and International Mail.
"There are a large variety of pest organisms known to be associated with vehicles and machinery" (p 2). Yes indeed, especially if you include all countries of the world as points of origin.
Now, if we were in a position to compare the risky vehicle pathway to the risky container pathway (from all countries in the World) containers may well come out with the largest variety of pests, despite their easy, six-sided nature.
"Several of the species assessed in this Risk Analysis have also been intercepted from sea containers" (p 16).

4. THE VIDEO-SCOPE and SLIPPAGE SURVEY(S)

The video-scope report shows that only 14 pre-cleared vehicles ex Japan were found to have contaminants: small amounts of dried plant material, some pine needles and a bit of soil. The fact that no egg masses (or any other evidence) of Lymantriid moths were found in the "slippage" or video-scope surveys of pre-cleared vehicles, is never mentioned as a possible indication that the cleaners and inspectors in Japan are doing *some things right*.
The video-scope report is extensively quoted in the Risk Analysis and it is used to pinpoint the concealed threats. The video-scope detected soil, seeds, leaves etc in hidden locations. What is the evidence that these "contaminants" spontaneously leave these hidden locations in the country of destination?
Slippage was determined for cars that were inspected and cleaned offshore. This presumably gives some kind of measure of the efficacy of the cleaning and inspecting system in Japan. Many people in Japan wonder if a "slippage survey" was also carried out on the on-shore inspection and cleaning system in New Zealand. The reason is simple: frequently BNZ and MAF argue that Japanese workers are not as reliable as New Zealand employees when cleaning vehicles to New Zealand's Biosecurity Standard… (apparently to do with pride for the country?)
A lot of data, generated in the video-scope survey(s), were obtained "after modelling", but frequently the *modus operandi* of that "modelling" is not revealed. This not only makes the video-scope report less credible, but also the Risk Analysis itself.

5. THE LACK OF KNOWLEDGE

There are "significant" gaps in our information (frequency/numbers/new vehicles etc) about hitchhiking biosecurity pests. This makes the Risk Analysis' foundation somewhat shaky as it is based on "circumstantial brainstorming".
Huge assumptions and scurrilous allegations *without evidence* put a number of serious biosecurity incursions in the lap of the used vehicle industry (i.e.: Painted Apple Moth p 356 *selection of pupation sites??*), Fall Webworm, White-spotted tussock moth p 16 **etc**.)
The constant use of the (emotive) terms "Wide range/many *contaminants*" gives the reader the feeling that used vehicles are absolutely buzzing with unwanted insects and rustling with mean, dead, dried old leaves full of wide-awake fungi and bacteria, ready to jump to life, the moment the cars are driven onto the wharf.
The truth is: there is very little hard data and the way BNZ is operating, those data are still not forthcoming when surveys (as recent as 2006) are specifically organised to gather those elusive data. Our knowledge and gathered data of Biosecurity risks on vehicles is *so* poor that assigning "risk descriptors" is not meaningful; so the authors make do with a blunt and often subjective guesswork instrument: "negligible" and "non-negligible" (p 13).
We don't even have data on what the contaminants were that caused MAF officers to order re-clean and re-inspections! Nobody took notes, apparently.
The common remark throughout the Risk Analysis is that the *frequency* of Biosecurity pests on used vehicles is very, *very* low. That this fact could be seen as encouraging for our efforts to keep them out of our country is obviously lost on the authors.
One of the more important and positive statements made in the Risk Analysis pertains the reference list of Non-Hazards (p 351).

6. COUNTRIES OF ORIGIN

Import Health Standards are usually more effective if they cover risk commodities from a certain region or one country of origin, *not* the whole globe. The number of risk pests to cover

from the main origin (Japan) is comparatively small and the target species are better known. It may be prudent to separate the countries of origin and draft a number of IHS versions.
Ironically, some suggestions in the Risk Analysis seem to support this line of thinking: a good example is the fact that containerised vehicles ex USA are recommended for mandatory fumigation (p 5) and that Australian vehicles have been found to be the dirtiest (p 38). Also, on p 14 there's an indication that there is some focus on this issue: "the conclusion of this risk analysis may need to be re-assessed, should the main vehicle exporting countries change…." etc.

7. MANAGING OR ELIMINATING?

This Risk Analysis appears to not want to *manage* risks associated with vehicle imports, but to *annihilate* those risks as much as possible, by using MeBr and expensive, high-energy consumptive measures (heat treatment) as "blanket treatments". Not all targets will be killed by these measures, so additional techniques are proposed for those organisms that are not affected by heat or MeBr.
Although the Risk Analysis states that "zero-risk is not a viable option", it appears as if that is, in fact, the target outcome.

8. RECOMMENDED TREATMENTS IN THE RISK ANALYSIS

The Main Recommendation (35.1) on p 342 never mentions any inspections in Japan at all. Instead it focuses on catchall techniques of MeBr and heat, complemented by vacuum cleaning and pressure wash, improved facility specifications and treatment of potential larval mosquito habitats in dented wrecks.
Chapter 35.2 on p 346 describes the "Other measures considered for used vehicles". It has the feeling of a *second tier recommendation* and resembles a "status quo *plus*", with inspections and treatments in Japan, improved facilities all over the world, backed up by an LTNZ inspection on arrival, plus extra measures against mosquitoes and fresh spider webs.
These measures are not recommended in the Risk Analysis, yet they would fit best with the current regime of offshore quarantine. It may come as no surprise that a number of operators in Japan would favour exactly this type of treatment system, over the mandatory "heat 'n gas" scenario.

9. ADDITIONAL TREATMENTS FOR USED & NEW VEHICLES

The use of residual insecticides is an inventive measure that would deal with all the spiders and their webs, plus all crepuscular insects in all sorts of hidden places. Residual disinsection, the use of aerosols or CO2-driven synthetic and residual pyrethroids (with fine nozzles, delivering gaseous materials for cavities, or with droplet sprays for surfaces) is common practice in International Aircraft Disinsection. It was developed in New Zealand and approved right around the world. Yet in this Risk Analysis it is not floated as a possibility for treatment at all. (Suggestions for research with residuals to prevent recontamination are about as far as the Risk Analysis goes).
Recent pilot trials with *Eradicoat* permethrin show an impressive knockdown and kill, 8 months (!) after spraying. With this material (and the gaseous Permigas for cavities) the table on p 343-345 will read quite differently: ants, Dermestids, cockroaches and spiders will come under "likely to kill most". Although vacuum cleaning interiors is not regarded as sufficient

treatment against exotic Dermestids, it is likely that with some added *Eradicoat* we can beat the longevity of the very rare *Trogoderma* grubs.
The "paucity of information on efficacy in managing the range of hazards, associated with the vehicle pathway" (p 29) means that not many trials have been done with sprays and gasses on all sorts of bugs in cars. However, efficacy data from other scenarios show that we can certainly have a look at this anomaly, even if MAF or BNZ themselves may not be interested in commissioning such work. It may be prudent to add the residual disinfestations techniques to the commissioned cost-benefit study.
We must never forget that a systems management approach (with a component list on p 52) is of crucial importance for both new and used vehicles.

10. INSPECTIONS

A clue as to why inspections are not featuring in the main recommendation on p 342 can be found on p 30. In 2003 MAF set an inspection target of 97 percent efficacy (detection) and so far (according to all the audits) has consistently failed to meet that target. (Note, however that that 97 percent figure was – as can be expected - not arrived at on the basis of a risk analysis).
What is suggested in this Risk Analysis is that LTNZ inspectors in NZ are to be improved with knowledge of invertebrates and other biota plus "an understanding of the importance of Biosecurity" (p 39); in other words we will be relying on the eyes, ears and knowledge of laypersons for our Biosecurity. Sounds like training the "container cat" again!
Used (and new) Machinery/Buses/Trucks are certainly viewed with a great deal of suspicion and are getting extra attention, both in the form of certain proposed mandatory treatments and through much more thorough inspection by specially-trained MAF Quarantine Officers ("trained in inspection of complex machinery"). Inspections are in this case seen as an important tool – why not on used and new cars?

11. AIR FILTERS

A "slippage survey" by the BMG found that 40 percent of all air filters had contamination. The air filters on used machinery (etc) must be a lot dirtier than those on cars, seeing they need to be either cleaned or replaced – Are they indeed much more dirty? Do they have more seeds and contaminations in them? Did BMG look at that?

12. COSTS AND TIMING OF THE RISK ANALYSIS

A number of times in the Risk Analysis, the reader gets the uncomfortable feeling that the timing of this document is somewhat premature:
The Economic and social costs associated with the proposed treatments are known for MeBr but not for heat treatment; a cost-benefit analysis is commissioned on an ad-hoc basis. Luckily, compliance costs for used vehicles have (so far) been at the lower end of the spectrum of all Biosecurity compliance costs for imported commodities, so presumably that indicates that the Industry can take a bit of a larger *hit*.
Many operators in the Industry believe that heat treatment is an option that will not only use an extraordinary amount of energy, but will also be cost-prohibitive.
Efficacy data on residual insecticides are still to be gathered – these materials could change the outcome of the Risk Analysis and sneak into the recommended procedures.
Air filter analysis and viability studies of the seeds found in air filters are still progressing in Japan.

Surveys on new vehicles are yet to be carried out.

13. NEW VEHICLES

Infestation data on new vehicles are almost absent. This is one of the reasons that new cars have – from a Biosecurity point of view - a very "easy ride" into the country. One of the reasons for this status quo can be found on p 27: "*New vehicle contamination is identified only by stevedores reporting it to MAF Quarantine*…"
But new vehicles are not always what they seem: herpetologist Tony Whitaker told MAF about the new Korea-listed KIA cars, stored for 18 months in Singapore, on their way to NZ!
The most important biosecurity threats, assumed to travel to New Zealand on vehicles and machinery, are constantly referred to in the Risk Analysis as "hitchhikers". This makes sense, seeing there are no bugs, spiders, lizards, birds or seeds that actually *consume* cars or parts thereof.
How these organisms consistently manage to prefer used vehicles to new vehicles is a mystery to many people, especially biologists.
BMG have been looking at "slippage" on imported pre-inspected vehicles and came to the conclusion that they could not say if the finds were the result of true slippage (non-detection by MAF Quarantine Officers) or *re-contamination* of vehicles after they were "greened". This statement, surely, implicates the cleanliness of new vehicles?

Important factors that relate to "re-contamination" after greening of used vehicles:
*Storage facilities: covered or uncovered
*Nocturnal lighting attracting flying invertebrates
*Surface condition TRS; hard or soft – weedy or clean – muddy or sand
*Length of time stored;
*Flight period for AGM/spiders ballooning/seed release. etc
*Nearby plantations/forests/weed patches with insects and seed sources
*Unprotected slot drains/ponds with mozzie or frog habitat in vicinity
*Nearby lizard habitat
*Spare tyres lying around/Rubbish/Old timber
*Food remains/wrappers/packaging with food etc

All these factors relate to new vehicles too!

A lot of the so-called hazard groups, mentioned in tables 1 & 2 (between pages 6 and 7) will blunder on new vehicles too.
It is encouraging to see that the Biosecurity Monitoring Group is going to put new vehicles under the microscope, albeit on an *ad-hoc* basis.
To just operate on a "Systems Approach" for new vehicles does not strike as a sensible idea.

14. ON-ARRIVAL OPTION

The "Brilliant Alternative" for importers or carriers (that don't believe in Ozone-depleting gases and refuse to invest in heat treatment units) is *On-arrival* disinfestation. Unfortunately, the 12 hour inspection deadline after arriving in New Zealand is not an easy deadline to meet. There are already struggles with numbers of non pre-cleared cars and space on the wharf.
The Risk Analysis points out that there are risks in transporting potentially dirty vehicles from wharf to authorised/audited decontamination site… contaminants could *escape*.

15. THE FUTURE

As with so many different pathways, BNZ is not an organisation that can just act as a "Biosecurity Police" to the Imported Vehicle Industry. There has to be some form of dialogue and cooperation if we are to effectively work towards a sensible Biosecurity risk *management*. Within the Industry, some participants are quite willing to initiate and fund bits of research to increase our knowledge of the Biosecurity threats and the methods to combat these organisms; this is the kind of "partnership" that should be welcomed by BNZ, but it is hardly acknowledged in this document.

With the imminent demise of the MAF Quarantine Service comes the realisation that when considering our thin green line at the Border, those very Quarantine Officers are the best we have to protect Aotearoa. We may as well use them as best we can in the Imported Vehicle pathway.

Report ends:

NAVIX LINE NZ, BLAIN PATERSON

27 April 2007

Biosecurity New Zealand
PO Box 2526
Wellington

Attention: Mr Martin Van Ginkel

Dear Martin

RE: Import Risk Analysis- Vehicles and Machinery

Section: 4.1 Close the pathway
Closing down the pathway is not an option (as stated in section4.1) and therefore creating "risk analysis" that is impossible to implement would in essence be another way a closing down the pathway.

4.5.2 Heat Treatment
This method of treatment will be effective but will have major logistical problems if the used vehicles have to be heat treated at the New Zealand port after discharge from the import vessels.

- Used vehicles could only be treated at the port of entry in New Zealand
- Time factor of treating each imported vehicle at the New Zealand border
- The inability of any New Zealand port to function properly if required to heat treat every vehicle. (Backing up of vessels waiting to discharge vehicles but not being able to)
- Available space for this type of treatment to take place at the wharf.
- Extra cost to be added to the price of used vehicles imported to New Zealand.

4.5.3 Fumigation
This method of treatment on a total shipment basis (all vehicles onboard a ship) would have major environmental restrictions.

- Methyl bromide effects on humans
- Large use and detrimental effects to the atmosphere

Presently MAF officers conduct a 100 percent check on used vehicles Entering New Zealand. These checks are carried out at Off Shore facilities (Port of Origin) and at the Port of destination (New Zealand Border control) but in all circumstances every vehicle is checked for

Contamination. This system has proved effective but is not at the 97 percent efficacy of the proposed NEW health standard being discussed.

We are the NZ appointed agents for the Toyofuji Shipping Line and as Such we have a concerned interest of the importation of used vehicles into New Zealand. But also share your view of maintaining the best possible protection for the detection of foreign pests from contaminating our environment.

If the NEW health standard cannot be raised to 97 percent efficacy because of logistical problems we are hopeful of Biosecurity New Zealand adopting a system that improves on current practises but does not close or restrict the importation of used vehicle pathway.

I would like to be informed of any public consultation regarding the New Import Health Standard.

Thank you for your consideration in the above matter.

Yours faithfully
NAVIX LINE NZ

Blain Paterson
Title: MANAGER

ENSIS FOREST BIOSECURITY AND PROTECTION UNIT, DR BRIAN RICHARDSON

GENERAL COMMENT

The project team has done an excellent job in terms of describing the overall risk pathway and presenting risk management measures. We believe the risk analysis is fair but it does raise real concerns around some of the processes. Examples of these concerns include not identifying dead interceptions, only identifying to order, some of the findings of surveys carried out to test the efficacy of inspections in Japan, etc.

We were pleased to see that where we have made comments on earlier drafts, our recommendations were generally accepted.

Specific comments on selected sections of the document (where we have expertise) are summarised below.

SPECIFIC COMMENTS FROM VARIOUS TEAM MEMBERS

3. Pathway description - Margaret Dick and Lindsay Bulman

This seems to have been adequately covered; comments made on earlier drafts have been addressed.

4. Potential Risk management measures - Margaret Dick and Lindsay Bulman

Good evaluation of the holes in the current inspection system.

7. Beetles (Coleoptera) except Dermestidae - John Bain

Page 89, Introduction. There are about 150 families of Coleoptera. The number 330 000 refers to the number of described species. The total number of species will undoubtedly exceed 1 million, perhaps several million according to some.

Page 90. *Zorion castum* is a junior synonym of *Zorion guttigerum.*

Page 91. *Syndesus cornutus* is found in New Zealand. First record Gisborne, 1961.

Page 91. Platypodidae. I note else where that the Family Lyctidae is treated as a subfamily of Bostrychidae. To be consistent the Platypodidae should be treated as a subfamily of the Curculionidae; as should the Scolytidae.

Page 93. Number of species in the different families. It should be stated that these numbers are approximate and refer to the number of described species. 11 000 species in the Anobiidae seems way too high; I have not checked it out but perhaps about a 1000 species would be closer to the mark. There are more than 500 species of bostrychids. The paragraph of the Cerambycidae is confusing. It is a mixture of statements that refer to *Anoplophora chinensis* and cerambycids in general. Note spelling of *Anoplophora* (o instead of e).

Page 94. Coccinellidae. "…batches of 200-800…". Some species lay batches numbered tens. A lot of species would not lay 200 eggs in total.

Page 94. Nitidulidae. What has size got to do with varying life histories?

Page 95. Platypodiddae. Should be mentioned that platypodids are xylomycetophagous. The adults as well as the larvae are wood borers.

Page 95. Scarabaeidae. Lower case “s” for scarabaeids.

Page 95. Scolytidae. “…the adults rather than the larvae are the primary tunnelers…” This statement is not true of the bark beetles.

9. Bugs (Hemiptera) - John Bain
Page 103. Aphididae. 4500 species.

Page 104. Ricaniidae. Saying *Scolypopa australis*... is now established in New Zealand would seem to imply it is a recent introduction. The first record from New Zealand is 1876.

10. Butterflies and moths (Lepidoptera) – Nod Kay and John Bain
Page 107. Introduction. …comprises 97 genera…??? There would probably be 97 genera in New Zealand alone.

This section is generally okay. However, it doesn't appear to take into account the winter period of no moth activity in the northern hemisphere. Targeted treatments or assessments could be refined by stepping up and down effort over flight periods for goods that are shipped promptly i.e. goods produced and exported in winter probably will need less intense inspection.

20. Micro-organisms associated with soil, plant and animal debris, faecal – Margaret Dick and Lindsay Bulman
Comments made on earlier drafts of this chapter have been addressed. It is a thorough evaluation of the pathway from both published and unpublished studies. The shortcomings of the current processes with regard to micro-organisms are identified.

The problem that I have is with Table 1 pages 184-187. It is a summary of fungi obtained from vehicles in this pathway during various studies. The column headings are:

organism	**Present in NZ**	**Pathogenicity** (Pennycook, 2003)	Vehicle type and origin	Contaminant	Viability

The second column is inappropriate/unnecessary. Most species are identified to genus only. Therefore it is not possible to know whether a particular species is here. This is not important as it demonstrates the capability of the pathway to transmit pathogenic species of that genus. I feel that it also gives a misleading impression.

Relying only on the Landcare database for these evaluations also can be misleading. Eg Bartalinia is listed as not occurring in NZ - but we have a specimen in our collection at Ensis. I suggest deleting that column.

32. Termites (Isoptera) - John Bain
Page 332. The three indigenous species of termites are similar to subterranean termites only in as much as they are small and white. Delete ‘rotting”; the indigenous termites can be found in sound timber.

Page 332. “An incursion of *Coptotermes acinaciformis...*”. This paragraph is misleading because it implies there has only been two incursions of this species into New Zealand. This is not so. Incursions of *C. acinaciformis* date back to the 1930s and there have been many of them. This is well documented.

Page 333, 32.2.2. *Coptotermes* spp. are not restricted to moist stumps of dead trees. The nests are subterranean, or in stumps or hollowed out trunks of dead of living trees, or in mounds. They can cause severe damage to living trees. The statement “A nest would only likely…or perhaps in wooden decking” is at odds with saying “…live in moist stumps…”

Page 334, 33.3.1. *C. formosanus*. Note lower “f’.

Page 334, 32.3.3. “…to be located in the northern part of New Zealand…” What about the incursion in Nelson? This is hardly the northern part of New Zealand.

Page 334, 32.3.4, first bullet point. Once again, what about Nelson?

Page 336, 32.7.4. I think you will find there is quite a bit of information on the efficacy of fumigants against termites; not only methyl bromide but vikane as well.

Page 337, second bullet point. “…or rotten wooden decking.” Why “rotten”? Termites are also found in sound timber.

33. Thrips (Thysanoptera) - Lisa Berndt
The section on Thrips seems reasonable and thorough to me. Although the risk is fairly undefined, due to lack of species knowledge, small size, difficulty of identification, the hazard it adequately managed under the proposed measures.

Brian Richardson
19.4.07

LANDCARE RESEARCH, DR PETER BUCHANAN

Submission relating to Chapters 1-4, 20, 35

I commend the authors and reviewers of this Risk Analysis for their extensive collation of published knowledge, research reports, and monitoring trials relevant to the imported vehicle and machinery pathway and the respective hazard groups. The document demonstrates clearly that current measures are inadequate, especially from results presented by the Biosecurity Monitoring Group surveys. These, along with data produced by New Zealand research providers, while uneven in coverage, provide useful indicative measures on which to base a range of progressive recommendations.

In general I support the conclusions reached and recommendations, with the exception of the perceived (lower) level of risk from contaminating soil and debris, as discussed further below.

I endorse the open acknowledgement of assumptions and uncertainties, and the need for further research in targeted areas.

My comments relate mainly to Chapters 1-4 and 35, with specific comments on Ch. 20 (Micro-organisms associated with soil, plant ….). I focus largely on risks to plant health. Biosystematics and ecology staff of Landcare Research have extensive knowledge of most identified hazard groups, and can be contracted to provide further information or review if this is required. A list of biosystematics staff and areas of expertise is attached.

Chapters 1-4:

Summary, p. 3, 1.3(4); 1.4 (3rd para): I suggest that the statement concerning the "acceptable" higher level of entry of organisms found in soil, animal and plant debris (1.4) is unwarranted and is open to misinterpretation by readers. With soil and debris the most frequently encountered contaminants in the vehicle pathway and potentially harbouring high risk organisms spanning several of the most biodiverse and least known groups of organisms, I judge it unwise to indicate a measure of acceptable slippage. Rather, I suggest that the Summary should highlight the frequency of occurrence and importance of soil and debris as potential sources of unwanted organisms, aspiring to negligible likelihood of entry and establishment through introduction of more focused and appropriate measures. Of particular concern as noted in Ch. 20 is used agricultural and forestry machinery and vehicles.

I support increased regulations governing compliance centres and inspection facilities. I also endorse proposed further research into the efficacy and breadth of applicability of ethanedinitrile, as a replacement fumigant for methyl bromide. While New Zealand is committed to reduce its use of methyl bromide, additional pressure to achieve this will likely come from our export markets suggesting conflict with our advertised 100 percent Pure / Clean Green image.

I concur with the extensive range of risk management measures is discussed in Ch. 4, appropriately supported by relevant literature.

Chapter 20:

p. 184, 1st sentence: Fungal taxonomy is a fast-advancing and specialized field of science especially with new molecular technologies leading to discovery of new taxa and more natural classification of species. Advice from fungal taxonomists at Landcare Research is readily available to assist interpretation of names and name changes. The authors of the Risk Analysis appear to despair at the apparent instability of the science. Landcare Research mycologists who compile and support the web-accessible NZFUNGI database are frequently consulted by MAF Biosecurity NZ staff to interpret data, and welcome this role. As with most speciose groups of organisms, identification of fungi often requires specialist knowledge. While the authors contend that "The status of an individual organism cannot therefore be stated with the same degree of confidence as is possible for some other hazard groups", this apparent impediment can be overcome through consultation and collaboration with relevant scientists.

p. 184, line 7-8, and Table 1. The NZFUNGI database has been consulted by the authors to determine presence or absence of fungi in NZ. This database contains all published records of fungi in NZ, and to that extent is comprehensive (cf. line 8), while it is acknowledged that there are several thousand yet-to-be-recorded species of fungi in this country. In Table 1, all fungi recorded to species level only should be indicated as "unknown" in terms of "Present in NZ" (e.g., *Cyclaneusma* sp., *Microsphaeropsis* sp., *Thyrinula* sp.) since their precise identity is unknown. Note also that *Trichoderma viride* is present in NZ.

The heading in Table 1 reads "Pathogenicity (Pennycook 2003)", but the latter reference relates only to saprophytic species and should be omitted from the Table heading. In fact, the sources of information on pathogenicity (incl. Pennycook 2003) have been given earlier in the paragraph above the Table on p. 184.

"*Phytophthora* spp." should be followed by a double asterisk. The footnote at the bottom of Table 1, p. 187 beginning "Stemonitis …" appears to be misplaced.

p. 187, 1st para, last sentence: I question whether a generalised statement can be justifiably made about the number of invasive wood decay fungi established in NZ. I suggest that the most seriously invasive and destructive temperate wood decay fungi have not (yet) established here (e.g., *Heterobasidion annosum*, *Phellinus weirii*, exotic *Armillaria* species). A measure of complacency of risk might be mistakenly indicated by the current statement.

Table 3, p. 189. With a large number of coprophilous fungi, I think fungi should be indicated as "present" on animal material esp. dung.

Records of fungi associated with imported vehicles relies principally on the important study (1994-1996) by Forest Research Institute as presented in Table 1 (pp. 184-186), focused on species mainly from plant debris, identified to generic level, and of potential forestry significance. Records from soil from containers, arguably a highly comparable source, showed high levels of fungal contamination (p. 192-193). The documented presence of high risk organisms such as *Phytophthora* in soil from imported vehicles (p. 186) justifies targeted measures to eliminate this risk. As a result of these studies, Ridley et al. (2000) concluded that vehicles are likely to be a significant pathway for foliage pathogens entering NZ (p. 195, 1st para).

Given the paucity of studies of actual viability of pathogens entering NZ on the vehicle pathway (p. 197, last para), I question the scientific support for the conclusion on p. 200-201 that the likelihood of establishment of an exotic pathogen (incl. all fungi & nematodes), is “low but non negligible”. This statement seeks to generalise across a mega-diverse and complex range of mostly microscopic organisms spanning several kingdoms that could be contained in contaminating soils and debris. These organisms will also include taxa new to science. I suggest that a high level of risk should be indicated, and that much broader studies be commissioned to investigate the diversity of contaminating organisms from soil and debris and their importance and to plant, animal, and human biosecurity and to conservation.

I thus strongly support the recommendation (p. 214, no. 3) for research to be undertaken on viability of microorganisms entering NZ associated with plant debris and soil and the likelihood of establishment.

Table 11, p. 209. Note that *Cladosporium herbarum* is present in NZ

Chapter 35:

I endorse the recommendations for imported used vehicles (35.1), new & used machinery and other vehicles (35.5), effective monitoring and review (35.6), and more effective education and awareness of all parties in the vehicle and machinery importation pathway.

SEMPRE AVANTI NZ LTD, GORDON SHAW

01 Background

The Ministry of Agriculture and Forestry (MAF) has evaluated the biosecurity risks posed by the importation of vehicles and machinery into New Zealand. Some high consequence pest organisms are known to be associated with imported vehicles and machinery. MAF has found that about half the imported used vehicles have contamination that could not be seen with the current visual inspection risk management regime.

The risk analysis concludes that the current risk management regime will not effectively manage the risks from high consequence pests.

This risk analysis proposes mandatory treatment and cleaning of imported used vehicles; a systems-based approach for the management of imported new vehicles; and an interim package of enhanced risk mitigation measures for machinery.

The Ministry of Agriculture and Forestry (MAF) has called for submissions from all interested parties on the risk analysis and risk management measures presented in the discussion document.

We have been asked to make specific comment on the following questions:

1. What are your views on the risk assessment for each hazard group? Are the risk assessments accurate? What changes, if any, are required? Please provide evidence to support your submission.
2. Has the efficacy of risk management measures for each hazard group been evaluated accurately?
3. Are there alternative packages of measures that will achieve the risk management objective? Please provide details.

Sempre Avanti Consulting provides service offerings in the areas of Management Consulting, Transport Sector Consulting, Project Management, Human Change Leadership, Organisational Re-engineering, Procurement and Tendering, Business Process Improvement and in providing Facilitation and Planning services.

Sempre Avanti Consulting [SANZ] is located in Wellington and Auckland.

SANZ has specific consulting, facilitation and project management expertise related to pre-shipment vehicle inspections in Japan and Singapore. As well as having an in-depth operational understanding of the Japanese regulatory environment related to light passenger vehicles.

Further background information on SANZ can be obtained from the web site www.sempreavantinz.co.nz

02 Our Comment on Import Risk Analysis: Vehicle and Machinery discussion document

The background document asks submitters to make specific comment on each hazard group.

However, we believe that the entire document requires specific comment as there seems to be a large number of gaps, assumptions and decisions recommended on very old research information.

We will make comment on the following areas:

- ✓ Biosecurity overarching strategies
- ✓ Multi Agency approaches to risk management
- ✓ 100% mandatory inspections in Japan
- ✓ Outsourcing of inspections
- ✓ Specific comment on sections of the consultation document

03 Biosecurity overarching strategies

SANZ acknowledges that the current system for inspection of vehicles and machinery is not robust enough.

The reliance on visual inspections needs enhancing.

The program of bio security inspections in Japan needs further review in our opinion.

The total cost of the program is not disclosed in the discussion document, so it is very difficult to draw any conclusions and to try to understand the relationship between cost, risk and return. It also does not allow any robust review of cost benefit assumptions.

The lack of this information makes it hard for organisations to draw any conclusions related to the arguments put forward in the discussion document related to enhanced measures to combat risks with out any cost benefit analysis.

We suggest that it is debatable as to the benefit of putting more inspection resource into the delivery of the current program in Japan.

The document makes no comment about investigating the possibility of outsourcing the entire inspection programme in Japan.

We suggest that there are many qualified organisations that could undertake this inspection function on behalf of MAF. This would be similar to the likes of AA, VTNZ and VINZ undertaking vehicle compliance on behalf of Land Transport NZ.

We recommend that rather than trying to propose a total package of changes measures that need to be implemented in one go, that a systematic project approach is developed to introduce incremental steps that deliver the greatest benefits matched to risks.

04 Multi Agency Approach

The consultation document as expected is MAF and BNZ focussed. However, SANZ suggest to you that there are other key stakeholders that have a part to play in this process.

For example, the Ministry of Transport is leading the Governments climate change and environmental policies with support from EECA and Ministry for the Environment.

In December 2006 it was announced by Judith Tizard Associate Minister of Transport, that emission testing is likely to be undertaken on second hand Japanese vehicles both off shore and on shore.

This initiative and new policy will ultimately be managed by Land Transport NZ together with the existing initial safety inspection currently undertaken by MAF.

We believe that LTNZ is currently reviewing its service delivery strategy including the vehicle pathway from Japan.

We recommend that any new models of inspection for the Japanese pathway should be integrated so that the inspection is multi agency focussed and inspections are not developed in silos.

It is critical for all potential impacts to be researched and analysed. Any new inspection systems should be focused on the regulatory compliance program and the goal should be a world class inspection system.

05 100% Mandatory Inspections in Japan

We believe that the consultation document does not go far enough related to the scope of the review and any potential new outcomes or solutions.

This may be as a result of the consultation document being developed internally with and internal focus?

We suggest that the only approach to the Japanese pathway is for 100% mandatory pre cleaning and pre screening of shore in Japan. This then keeps the risk off shore.

We suggest that and alternative option is the introduction of mandatory cleaning and heat treatments or fumigation for the Japanese pathway. If 100% of vehicles are pre cleaned and pre cleared in Japan, then there would be no need for MAF inspections. Rather, MAF could then concentrate on measures to reduce cross contamination and for the developed of output and process audits on shore to ensure compliance to the set standards.

06 Outsourcing of inspections

Another option that has not been articulated in the consultation document is the outsourcing of biosecurity inspections to suitably qualified organisations.

For example there are a number of Japanese Government agencies and private pre shipment inspection specialists that could undertake these inspections under licence to MAF.

For example:

Japan Auto Appraisal Institute (JAAI)

www.jaai.or.jp

JEVIC

http://www.jevic.co.jp/jevic_english/

SGS

http://www.sgs.com/home.htm

The potential impacts to the program would have to be assessed and a risk and return matrix developed together with cost benefit analysis.

We recommend that this option is further explored.

07 Section by section comment on consultation document

1.5

It is stated that "The measures can be applied on or offshore, although offshore risk management is preferred". It further states "MAF will be looking at the policy considerations around the offshore decontamination of imported vehicles and machinery".

We totally support this approach. We recommend that it be made mandatory for 100% pre-clearance in Japan. When the policy is reviewed it should include the potential to partner with Land Transport NZ for the safety and emissions tests to be conducted at the same time.

A possible consideration is also the outsourcing of inspection services to suitably qualified inspection organisations in Japan.

We would suggest that the "alternative package of measures" should be the preferred option. This package makes more sense than 100% heat treatment. We say this due to the time take to heat treat a vehicle and weather conditions.

We may have missed it but there seems to be no assessment of vehicles arriving in New Zealand in containers.

1.5.2

Why are new vehicles being treated differently? The document states that 9 hazards have been identified but in the same paragraph, that new vehicles are of lower risk. We can see no evidence of how this decision has been made and under what circumstances.

We recommend that the same rules apply for both new and used vehicles.

3.3

Paragraph number 2 on page 22 uses vehicle "volumes" as a justification for the effectiveness of the offshore programme. Please provide us with the detailed costings that support this argument.

This argument is redundant if 100% pre clearance becomes mandatory for vehicles from Japan.

In paragraph number 5 it quotes 2 year old data. Is there any more recent statistical information available?

3.3.1

Paragraph one makes reference to the lack of space on the Auckland port as well as inspection site standards.

There is no reference to the long standing plans by the Ports of Auckland to develop Pikes Point as a dedicated vehicle inland port facility. When this facility is finally developed the space issue will not remain.

We recommend that this development be noted in your documentation.

Inspection site standards should link to the Land Transport NZ Vehicle Inspection Requirements Manual (VIRM).

3.3.3

The LTNZ safety inspection is intrinsically linked to pre clearance of vehicles. It is a fact that MAF officers are part of this process.

We note there are no comments from LTNZ in this document. What is the LTNZ's position on the proposals contained within this document?

How has the impacts of these changes been assessed affecting LTNZ's service delivery strategy?

Will LTNZ seek to separate the initial safety inspection from the biosecurity inspection? How will this impact on MAF officer workloads?

3.4

Paragraph two on page 27 raised good points as to why both new and used vehicles need to have the same rules applied.

4

There is no specific reference to the risk management of the TRS operators in Japan.

If the goal is to raise standards then on option is to set minimum standards for approved facilities, higher than they are currently set.

For example, it could be made mandatory for operators to be accredited to ISO 17020 or equlaivent.

4.3.2

There is discussion related to invasive structural inspections and cases identified where contaminates have been found during the LTNZ compliance process. The number quotes seem to be a very small portion of the total vehicles.

We recommend that a trail of invasive inspections in Japan may provide better inspection result data to analyse.

5.8.1

We recommend that the statement "100% of all vehicles receive" be added at the start of the section to clearly state the intentions of this initiative.

35.1

We suggest that one recommendation missing is that of:

"The introduction of 100% mandatory pre clearance of all vehicles from Japan".

35.2

We suggest that point two have the following words added at the beginning of this section to make the intent more clear. "100 %"

35.3.2

There seems to be no scientific justification for the "ten day rule"?

We recommend that off shore risk management be coupled with targeted measures to prevent recontamination, rather than a blanket 10 day rule.

The recommendation above should also apply to the 3m rule as well.

We also recommend and concur that in-transit treatments are explored with a focus on legal, technical and safety considerations.

35.6

We recommend that a public private partnership be considered to assist with the monitoring and audit of the vehicle and machinery pathway in both Japan and Singapore.

35.6.2

We agree with the list of research topics and recommend the following are added:

- Undertake research into the core components of inspection of vehicles and machinery to develop a set of inspection outcomes for biosecurity, safety and emissions test at the port of embarkation.
- Review the minimum requirements and consider new rules for TRS operations in Japan, Singapore and New Zealand.
- Undertake a risk analysis to fully outsource the inspection programme in Japan and Singapore.
- Trials to be continued for heat treatments of arthropods
- Undertake further research into other fumigation treatments that can replace methyl bromide

35.8

We agree with the comments around the age of the data assumptions are made on. There is publicly available data that is more recent. For example LTNZ and NZ Customs Service have 2006 vehicle arrival and registration statistical this information should be used in this consultation document.

We agree with the comments regarding the interoperability of a heat treatment regime. Heat treatments need more research, consultation and operational trails to prove its worth.

Signed for an on behalf of Sempre Avanti NZ Ltd:

Gordon Shaw
Director
Date: 7th March 2007

MINISTRY FOR THE ENVRIONMENT, DR SARAH ADAMS-LINTON

Dear Martin

Re: Import Risk Analysis - Vehicles and machinery

As discussed when we talked on the telephone, I provide below some high level comments from MfE regarding the above IRA, forwarded to us for comment.

We thank you for the opportunity to comment on this Import Risk Analysis, as we consider it is important that this proposal, and others such as this, be viewed in the context of the Government's commitment to reduce methyl bromide use where possible, and in relation to the ongoing work across central government in this regard.

Although we have provided informal oral advice to MAF on this document already, we trust the below comments will be useful to MAF in the ongoing evaluation of options for addressing risks via this pathway.

We appreciate that the risks identified by the import risk analysis reflect an increasing potential biosecurity problem, due to the rapidly increasing number of imports in this sector. We fully support MAF's efforts to address this issue in a manner which facilitates trade while protecting from what could be significant biosecurity risks. We also support MAF's effort to simplify the import process for all vehicles, and consider the proposal to unify the current (and required) IHSs is a logical development.

However, given the large quantity of vehicles covered by the proposed revised IHS, we are concerned at the apparent suggestion that a unilateral requirement be imposed for methyl bromide fumigation for these imports.

As you will be aware, MfE is working actively with MAF Biosecurity and other agencies to look at ways whereby New Zealand can reduce its current heavy reliance on methyl bromide as a quarantine and pre-shipment fumigant. While alternatives may not be readily identified at the present time, we consider methyl bromide should be considered a 'last resort'/if-all-else-fails option, rather than the 'first-off-the-rank'.

In this regard, we would support alternative measures (e.g. heat treatment) to methyl bromide being evaluated and used in preference to fumigation with this ozone depleting substance where this is economically and technically feasible.

We note that evidence from MAF's monitoring surveys and post-border interceptions indicates the current risk management regime does not meet the requirement that vehicles are free of contamination (97 percent) at the point of clearance into New Zealand (page 37). We note also, however, that there are means of decreasing the likelihood of contaminated vehicles entering New Zealand that are available under the current regime, but not currently utilised.

The import risk analysis notes there is a paucity of information available on the efficacy of managing hazards associated with the vehicle pathway (page 29) - in this regard we consider that further investigation of possible alternative options to methyl bromide fumigation could be usefully investigated before such a treatment option was proposed.

The risk analysis also notes that most of the identified hazards on the vehicle pathway are either 'hitch-hikers' or "are associated with other contaminants in/on vehicles and machinery" (page 15). A key concern is the apparent lack of pre-shipment/off-shore treatment prior to entry to New Zealand. It appears that many of the high risk vehicles can be identified prior to shipment and could be treated in advance of arriving at the New Zealand border as indicated by the information presented in the tables on page 26). Identifying and addressing risks at source to reduce the need for post-entry treatment in the first instance would seem highly preferable to unilateral fumigation on entry.

We also note that while routine interceptions pick up pests on new imports, there are currently no formalised conditions placed on the importation of new vehicles - implementing such an adapted and improved version of the current 'used' import process would seem a logical first step in addressing this short-fall.

We appreciate that this is but the first step in the process of reviewing the IHSs for vehicles et al, and that firm decisions will not be made until the costs and benefits of the proposed measures are fully assessed.

We would welcome the opportunity to discuss these proposals further with MAF once the cost/benefit analyses being undertaken by NZIER has been completed.

We look forward to having an opportunity to work further with MAF on this matter, and will be pleased to provide further input where this would be of use, and to attend any stakeholder meetings that may be planned in the coming months.

Best regards

Sarah

_____

Dr Sarah Adams-Linton
Senior Advisor,

MINISTRY OF HEALTH, J R GARDNER

28 March 2007

Dear Martin Van Ginkel

Imported Risk Analysis – Vehicles and Machinery Feb 2007
Ministry of Health Submission

Reference:

A. DO letter dated 15 Mar 07 from M Van Ginkel

The Ministry's Environmental Health staff have reviewed the Risk Analysis document and has noted the particular findings in **Section 22 - Mosquitoes Culicidae**. The content of this section covers the risks that exotic mosquitoes might pose to human health if they were allowed to become established in New Zealand and identifies that:

Our view of Section 22 of the Document is that the material is scientifically sound and appears to accurately reflect the situation regarding the potential risks that imported vehicles and machinery might create in New Zealand if they were not subject to a robust verification regime to identify and deal with exotic mosquitoes.

The Ministry also endorses the appraisal made in the document regarding the exposure and consequence assessments if exotic mosquitoes of public health significance were to be come established in New Zealand.

The Ministry of Health supports the current exclusion programmes for exotic mosquitoes of public health significance. It also recognises the need for effective tools to be readily available to treat possible interceptions/incursions of mosquito vectors. For this reason the Ministry strongly endorses the continued utilization of methyl bromide as a treatment agent. This endorsement would only be modified if a novel treatment product or technique of equivalent efficacy to methyl bromide was identified and was available for operational usage.

J R Gardner
Senior Adviser Border Health Protection

GREENS ADVISORY UNIT, CHRIS TEO SHERRELL

Hi Martin,
Afraid we don't have the time to wade through the 382 page analysis but did want to raise the possibility of phosphine gas being used in place of Methyl Bromide.

I'm aware that BNZ is still conducting pilots with logs going to India, having convinced Chineses authorities already.

Most of our imported vehicles presumably come from Japan and korea etc so the voyage here would be long enough to ensure exposure to phosphine in the ships hulls for long enough to effect potential pest death. This wouldn't obviate the need for vehicles to be vacuumed and thoroughly washed first.

I don't know if phosphine is effective against all pests of concern but thought I would raise this as didn't see it mentioned in the analysis.

Regards,
Chris Teo-Sherrell
Greens Advisory Unit

MARK FORWARD

To: Martin Van Ginkel
Subject: Submission on Import Risk Assessment - Vehicles and machinery

I am putting this submission in as an individual.

I welcome the review and believe importation of vehicles and machinery is an area of high risk that we need to continually improve in terms of reducing the risk of a serious incursion. I think the Risk Management Objective covers this. I agree that offshore decontamination is obviously the best option (as long as the process is closely monitored and audited to ensure compliance to the standards).

Specific questions

1. The risk assessments seem to me to be reasonable under the current state of knowledge. Recording, collection, identification and documentation of dead insects/ material on imported material could help to improve the risk assessments for the each hazard group.

2. The risk management measures seem to me to be reasonable under the current state of knowledge (with thte exception of bark beetle risk management). Regular auditing must be done to determine the efficacy of these measures (as detailed in the slippage surveys). These surveys should be done as part of normal day to day operations.

I believe trapping surveillance for Bark Beetles should be reintroduced at ports and transitional facilities. The document acknowledges the risk of beetle incursions in used machinery and vehilces, but I believe it doesn't go far enough into risk management measures. Although no live Mountain Pine Beetles (Dendroctinus ponderosae) have been detected on vehicles or machinery to date other species from this family have. This species has the potential to devastate our conifer forests. Beetles in the Genus Anoplophora like the Asian Long Horn also pose a significant threat and have been intercepted live in the past.

3. I don't have any further packages of measures, but believe a reserch programme should be maintained seeking alternatives and improving the current packages of measures.

Mark Forward

DAVID MCALLISTER, ADVANCE INTERNATIONAL LTD

18 April 2007
Attention: Martin van Ginkel

Dear Sirs

Re : Import Risk AnaLysis: Vehicle and Machinery

I refer to the above Risk Analysis and wish to make the following submissions.

Sec 1.5.1

The tenn "crash damaged vehicle" needs to be defined. Presently MAF inspect at the border vehicles on behalf of LTSA and "tag" vehicles as damaged. This "tag" can often be applied in instances of very minor panel damage even when no structural damage, but still tagged as damaged. Our concern is that if the same principle is applied in determining "crash damaged" then the proposed treatment will encompass many vehicles that need not sustain the proposed level of treatment. The term "crash damaged" MUST be quantified.

Sec 1.5.3

The time reference of 8 weeks for application of a synthetic pyrethoid formulation needs further qualification. Is the 8 week period applicable to a time period where the unit is treated and held on a wharf either pre or post shipment OR is the treatment such that it can be applied for the required 8 week period before presentation for shipment or following discharge and delivery from the wharf. The logistics of holding such equipment on wharf (pre or post shipment) would be nightmarish and should not be dismissed as not applicable within this risk analysis.
Sec 1.5.3
This section refers to certain uses of vehicles eg for transporting grain, for transporting agricultural products, for transporting foodstuffs. Further qualification of these uses needs to be included. Many a vehicle could be used for the transport of foodstuffs eg supermarket supplies which would hardly constitute a quarantine risk.

General

It is inevitable that any revision to the Import Health Standard will follow the recommendations of this Risk Analysis. Accordingly it is important that cost benefit analysis and the logistics of proposed recommendations should form part of this analysis. Whilst industry may well be sympathetic to the cause in general, it can have a completely different effect when faced with the economic and logistical challenges. The entire Biosecurity issue would endear a greater public participation and willing cooperation if such proposed measures were to detail all the logistical and economic measures involved. Unfortunately past measures implemented by MAF/Biosecurity whilst fine in principle become a completely different ball game once the full facts are known.

It is also understood that this Risk Analysis is the first time that such a measure has been undertaken by any country. As such it is our recommendation that the entire process be frilly

disclosed from the outset.

Yours sincerely

David McAllister
Managing Director

Appendix 2 Gordon Hosking's external review comments on the draft risk analysis, MAF's response to them and consequent changes to the risk analysis

Review comment	Relevant section in the final risk analysis	MAF response to the external reviewer	Consequent change in the final risk analysis
The lack of numerous comments on the three documents should not be seen as a lack of rigour in the review but rather a compliment to the team who have undertaken this work who in my opinion have done an outstanding job.	General	None	None
The structure of the review is very logical and easy to follow. It is nicely broken down and summarised for each component, clearly cites data supporting conclusions and identifies where data is lacking and where assumptions have been made.	General	None	None
It is very easy for the reader to be overwhelmed by the extent of risks and our limited knowledge of the risks posed by specific groups of organisms, in particular micro-organisms. I would like to see clear statements around the issue of risk management rather than risk elimination, and the objective of significant improvement over existing practice, up front rather than towards the end of recommended measures. It is very important that the reader gets their head around the concept of continuous improvement as key questions are answered, and the idea of balancing risk reduction against practicality and affordability.	General	Will rewrite the summary to provide a better overview of the risk analysis including risk management objective, in the context of the wider IHS review process. The revised IHss will take account of submissions on the technical content of the risk analysis, feedback from stakeholders on practical implementation factors, consultation with other departments and the cost benefit analysis being undertaken by independent contractors.	Context in summary
Machinery. It is encouraging to see this component separated out as different in both risk and treatment. I have always thought in some ways it was easier to deal with then used vehicles simply because the time	General	None	None

Review comment	Relevant section in the final risk analysis	MAF response to the external reviewer	Consequent change in the final risk analysis
constraints are very different – it should be possible to heat treat a log skidder for example for 24 hours within a portable heat treatment chamber on the wharf.			
References. I have copied below some references which might be useful from my recent review "Quarantine risk reduction and pre-shipment treatment of forest produce". Some are unpublished reports, most of which I could supply copies of if required.	General	Thanks for these	**Dowsett, H.A., Yonglin, Ren., and Waterford, C.J. 2004.** Toxicity of ethanedinitrile (C2N2) to timber or wood related insect pests. Proceedings of Annual International Conference on methyl Bromide Alternatives and Emissions Reductions. Cited on page 46. **Faruki, S.I., Miyanoshita, A., and Imamura, T. 2005.** Toxicity of sulfuryl fluoride to the developmental stages of the maize weevil *Sitophilus zeamais* at different exposure periods. International Pest Control 47(3) 133-138. cited on page 47. **Gadgil, P.D., Bulman, L.S., Crabtree, R., Watson, R.N., O'Neil, J.C. and Glassey, K.L. 2000.** Significance to New Zealand forestry of contaminants on the external surfaces of shipping containers. NZ Journal of Forestry Science 30 (3): 341-358. cited on pages 181 and 192. **Ren, Y.L., Wang, Y.J., Wang, X., Lu, Y.S., and Barak, A.V. 2003.** Toxicity of ethanedinitrile to Asian longhorned beetle larvae. Proceedings of Annual International Conference on Methyl Bromide Alternatives and Emissions Reductions. Paper No. 142. cited on page 46.
I have not reviewed the executive summary as I assume it is all captured in the body of the paper.	Summary	None	None
I think you should note what they are here. (the three import health standards)	Para 2.1 page 7	I don't think this is the appropriate place – this para summarises the provisions and they	None

Review comment	Relevant section in the final risk analysis	MAF response to the external reviewer	Consequent change in the final risk analysis
		are discussed in detail in the following chapter. Will explain this.	
A reference to the fact that this is considered later in the paper would be good at this point. (the lack of an IHS for new vehicles)	Para 2.1 page 7	This is discussed in the next para.	None
I strongly support this approach – the trick is to identify all available data sources. What about data from other countries in relation to similar risk goods? Probably not much available. (use of interception records to identify potential hazards).	Section 2.3.1 page 9	I did get hold of AQIS data – but there were no major differences in type of organisms intercepted so did not include it. But will mention it.	Page 11 additional paragraph. ' Interception records of organisms on imported vehicles and machinery were obtained from the Australian Quarantine and Inspection Service for comparison. These were not analysed in detail, but a similar range of organisms were recorded.'
Can the data be separated into that relevant to used vehicles and machinery? (interception data)	Page 11	It is in the following chapters and in the summary – too much detail for this section.	none
An example would be useful – it is a judgement call as to how similar is similar. (hazard groups)	Paragraph 6 Page 13	Agree it is a judgement call and for this analysis it is not very similar – will try to clarify	Page 13 additional sentence. 'for instance, it is assumed that risk management measures proposed for reptiles will manage the risks associated with amphibians, and a full risk assessment is not undertaken for amphibians.'
Plausible scenarios can be derived for some important incursions arriving via the used vehicle pathway eg WSTM	First paragraph page 16.	Agree will clarify	Page 16 additional clause. '…and indeed whilst not conclusive it is likely that imported vehicles have been the entry pathway for white spotted tussock moth, *Orgyia theyllina*.
Could be worth commenting on the mobility of vehicles once cleared and the link with suburban gardens with their wide range of potential host material.	Second paragraph page 16	Mobility is addressed below	None
I support this approach as being robust and appropriate to the risks being considered. I think an excellent job has been done. (risk analysis methodology)	Page 17	None	None
Should not methyl bromide fumigation be included somewhere here? (description of current risk management measures)	Section 3.3 page 21	Thanks – missed it!	Page 21 additional clauses. 'Inspection by MAF staff abroad *followed by decontamination and/or*

Review comment	Relevant section in the final risk analysis	MAF response to the external reviewer	Consequent change in the final risk analysis
			treatment as necessary…' ' inspection , *followed by decontamination and/or treatment as necessary…*'
Are there any mechanisms to advise importers of the biosecurity requirements for individual importations so that greater attention to treatment can be given prior to shipment? I assume sign-off by the exporting country has not been used, as with used vehicles.	Section 3.3.4 page 25	Exporting country sign off has not been used. Limited information is currently available. Agree it would be useful to make more information available- in recommendations.	none
I like the simple and clear summary of what the data show.(decontamination rates)	Page 26 after bullet points	None	None
I would just observe that this is a very risky practice – where there is one there are possibly more since clearly exposure has occurred.	Page 27 first bullet point	Thanks this is addressed in following chapters.	None
For completeness it would be good to see the current MAF fees.	Section 3.3.6 page 27	Will add	Additional sentence to section 3.3.6 'Current inspection fees for vehicles are $25 or $50 (depending on size) and $100 per hour for machinery.'
An excellent outline and discussion of the pathway well supported by available data.	Chapter 3	None	None
??? (missing word)	Section 4.3.1 page 37	Sorry should be equipment	Word 'equipment' inserted to first sentence of section 4.3.1
What about seasonality of trade. Are winter shipped vehicles from Japan lower risk for high consequence organisms? (improved data to target inspection/treatment)	Section 4.3.1 page 37	Interesting issue. The interception data don't give us a good handle on seasonality. Winter shipped vehicles are not necessarily low risk – could for instance have AGM egg masses. Will add a section on this issue	Additional sentence at end of section 4.3.1 ' Better interception information … may also help clarify seasonality issues.'
Might it be considered for machinery and badly contaminated vehicles in the interests of developing better data in this area? (inspection using a videoscope)	Section 4.3.4 page 40	Yes – a videoscope survey of machinery is being done this year. May also be justified for all machinery will add	Additional clause to last sentence of para '...it is unlikely to be a practical routine measure *but it could be used for inspection of certain classes of machinery considered to be higher risk, or*

Review comment	Relevant section in the final risk analysis	MAF response to the external reviewer	Consequent change in the final risk analysis
			for classes of vehicle that are more difficult to inspect, such as damaged vehicles.'
Very good coverage and discussion of options.	Page 41	None	None
Heat-shock protein production has not been recorded above 40ºC and I would guess 50ºC would be way outside the limit.	Page 42, 7th bullet point	Will clarify	Additional clause to para. 'This may act as informal heat treatment or result in reduced efficacy of heat treatment, *although heat-shock proteins are unlikely to be produced at temperatures in excess of 40 °C.'*
Trials on NZ vehicle at Ohope in 05/06 summer recorded cabin air temperature of 62.2ºC and surface dashboard temp. of 81.8ºC	Page 42, 7th bullet point	Useful to get this data	None
Desert insects generally have little relevance to the use of heat for quarantine purposes because their avoidance response is behavioural. For example stilting (walking on tip toe) to lift the body out of the boundary layer is a common strategy along with avoidance behaviour such as eking shade.	Page 43, second paragraph	This is acknowledged – some also have high thermal death points	None
It also requires long exposure time especially for immature stages – days rather than hours. (phosphine)	Page 47	Thanks, will clarify	Additional sentence in phosphine paragraph. " it also requires long exposure times of days rather than hours especially for immature stages.'
I strongly support further work. Lab trials gave 100 percent mortality of longhorn beetle eggs at 60g/m³ for 24 hr. (Zang and Epenhuisen 2005) (Sulfuryl flouride)	Page 48	None	None
The team have done an excellent job. My comments may be useful but I have no criticism as to the approach nor the robustness of the argument or the conclusions drawn.	Chapter 4	None	None
I have not reviewed the fungal component as my colleague Margaret Dick will be looking at this.	Chapter 20	None	None
It would be appropriate to quote Gadgil et al here (See my covering note).	Page 181 Section 20.1 second	Accept	Citation added.

Review comment	Relevant section in the final risk analysis	MAF response to the external reviewer	Consequent change in the final risk analysis
	paragraph		
Gadgil et al had some analysis done of nematodes in soil on sea containers.	Page 188	Accept but not convinced that the results are transferable to vehicles	None
A very good assessment well recognising the limitations of our existing knowledge.	Chapter 20 entry assessment	None	None
It is possible in the future that portable heat treatment facilities might make on-wharf treatment practicable.(of machinery)	Page 205, visual inspection	Accept but probably not relevant to this section	None
This is a good call (separate risk management recommendations for used, and new vehicles and machinery)	Page 342, paragraph 3.	None	None
The increased use of methyl bromide is contrary to efforts by MfE to lead initiatives to reduce its use. A rough and conservative calculation shows that if fumigation was the cheapest option and therefore used for most imported vehicles, 100,000 vehicles would raise our MBr use by around 100 tonnes (48g/m^3) – this might not be acceptable!	Page 347, section 35.3.1	Accept that there are important issues here. Mebr is an effective biosecurity measure for many hazard groups, however, policy and other factors will be taken into consideration in the IHS review process.	None
A very good consideration of key work that would clarify/improve risk management.	Page 357, section 35.7	None	None
White Spotted Tussock Moth could well have entered by the used vehicle pathway and cost $12 million to eradicate – should be included	Page 359, table 4	None	None