



**Australian Government**  
**Department of Agriculture,  
Fisheries and Forestry**

# Imported Bulk Cargo Fertiliser Inspection Protocols

**AQIS**  
*Protecting our way of life!*

**DEPARTMENT OF AGRICULTURE, FISHERIES AND FORESTRY**

## CONTENTS

BACKGROUND	2
EXECUTIVE SUMMARY	3
INTRODUCTION	4
QUARANTINE INSPECTION PROTOCOLS	4
1. LEVEL 3 – High Risk Consignment	5
2. LEVEL 2 – Medium Risk Consignment	6
2.1 Auditing	6
2.2 Vessel Cleanliness	7
3. LEVEL 1 – Low Risk Consignment	8
3.1 Auditing	8
3.2 Vessel Cleanliness	9
3.3 Vessel Voyage	10
4. Import for Manufacturing Under AQIS Issued Permits	11
5. Pre-Arrival Documentation	12
CONTAMINATION PROCEDURES	14
Attachment 1 - Initial Desk Audit	15
Attachment 2 - On-Site Audit Protocols	17
Attachment 3 – Manufacturer Declaration	30
Attachment 4 – AQIS Sampling Standard	31
Attachment 5 – Vessel Survey, Inspection Report and Treatment Order	37
Attachment 6 – Surveyors Guidelines	42
Attachment 7 – AQIS Pre-Arrival Fertiliser Information	48

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1.0	Jan 2004	Initial version	Paula Savakis and Fertiliser Review Team
1.1	June 2005	Revised version to amend formatting; clarify that classification Levels are determined on hold-by-hold basis; and add option for Level 1 vessel determination to be made using an EX154 Prescribed Goods/Grains Loading Permit.	Glenn Smith / Angela Dyck

## BACKGROUND

In answer to the recommendations arising from the 1996 review of Australia's quarantine policies and operations, *Australian Quarantine – a Shared Responsibility*, the Government's 1997 Response accepted several principles aimed at strengthening the quarantine continuum and keeping quarantine risks offshore. The continuum of the quarantine concept proposed a holistic approach, commencing offshore with Australia's neighbours and trading partners, proceeding through the traditional quarantine border and continuing through to onshore activities.

The importation of fertilisers into Australia presents a serious quarantine issue. Imported consignments may be contaminated with quarantine contaminant materials such as seed, soil and animal matter, which have the potential for introducing exotic pests and diseases into Australia. Given the high potential for direct application of fertiliser to soil, the Australian Quarantine and Inspection Service (AQIS) has had a nil tolerance policy on fertiliser contamination since 1995.

Since that time, the Australian fertiliser industry has implemented a number of initiatives designed to reduce quarantine contaminants in the fertiliser pathway and supply chain. Given these advances, and in recognition of the need to keep quarantine risks offshore as far as possible, the quarantine operational arrangements for the importation of bulk in-ship fertiliser into Australia underwent a review in 2003.

In response to the outcomes of the review, this paper has been developed to clearly articulate the quarantine inspection protocols for the importation of bulk in-ship fertiliser. These arrangements do not supersede the import requirements for bulk fertiliser; they are designed to address the risk of quarantine contaminants within imported bulk in-ship fertiliser. The underlying principles include:

1. alignment of classification and inspection procedures with critical control points and appropriate quality assurance mechanisms;
2. an open and transparent decision making model; and
3. consistent implementation of efficient and effective procedures for dealing with any quarantine contamination of fertiliser vessels and or cargoes.

The rating system and inspection procedures outlined in this document relate to the importation of bulk in-ship fertiliser. Fertiliser is defined as a substance that is manufactured, represented, supplied or used as a means of directly or indirectly:

- (a) fertilising the soil; or
- (b) supplying nutrients to plants; or
- (c) conditioning the soil by altering the chemical, physical or biological composition of the soil; or
- (d) a substance declared by regulation to be a fertiliser, but does not include a substance excluded by regulation from the ambit of this definition.

## **EXECUTIVE SUMMARY**

The protocols described in this document are the result of a cooperative project between AQIS and the fertiliser industry through its representative body, the Fertilizer Industry Federation of Australia. This cooperative approach has enabled the development of a protocol that improves the effectiveness and efficiency of the various parties involved in importing fertilisers that are vital to Australian agriculture.

From a quarantine perspective these protocols ensure that not only do inspection procedures provide very high confidence in the integrity of the quarantine border, but also that the industry is encouraged to adopt systems that reduce the risk of contamination throughout the supply chain.

From an industry perspective these protocols ensure a clear understanding of quarantine inspection procedures. They provide opportunities for companies to reduce the commercial risk of importing fertilisers by implementing supply chain procedures and quality assurance that significantly reduce the risk of contamination.

Whilst these procedures represent a significant improvement in the management of quarantine issues in fertiliser imports, they build on an existing system that has seen the rate of contamination drop from 18% in 1996 to less than 2% currently. The detection of very small quantities of contaminants, “a handful of grains”, in the few incidents that still occur is testament to the effectiveness of the inspection procedures.

This document sets out the procedures, the quality assurance processes, and the standards and qualifications to be applied in an improved quarantine continuum. It describes the process for determining the three levels of classification for fertiliser imports and the inspection regime that will apply to each level. The three levels of classification are determined on a vessel hold-by-vessel hold basis and are based on consideration of the supply chain to the point of loading, the vessel and the voyage. It describes the process to be followed by importers/suppliers seeking assessment and accreditation of their supply chains to Level 1 and Level 2 status. It also includes relevant background documents, guidelines and procedures required by AQIS and industry for assessment of Supply Chains to Level 1, Level 2 and Level 3 status.

Consistent implementation, by all parties, of the detail and the principles set out in these protocols will improve the efficiency and effectiveness of quarantine control. The protocols allow importers to take extra measures to reduce commercial risk and capture the maximum benefit of this improvement.

## INTRODUCTION

Contamination of fertiliser can occur at a number of places throughout the supply chain; from manufacturer through to and including the voyage that the vessel takes to Australia. Recognising this, critical control points through the supply chain have been identified and related contamination management strategies developed. Whilst the full suite of contamination management strategies provide a high level of assurance that contamination has been managed effectively, it is acknowledged that they may not be practicable in all circumstances. Given this, the quarantine inspection protocols detailed below have been developed in a three level approach aligned with the type and number of control strategies employed by manufacturers and/or importers.

In instances where there are no recognised contamination management strategies in place, consignments are classified as Level 3, high risk. Where some specific strategies have been implemented, consignments are classified as Level 2, medium risk. Where the full suite of strategies has been implemented and there is a high level of confidence in the quarantine integrity of the consignment, it is classified as Level 1, low risk.

In the development of these protocols, AQIS has maintained its nil tolerance policy on fertiliser contamination. Further, the protocols provide a high level of integrity and transparency in the quarantine decision-making system.

## QUARANTINE INSPECTION PROTOCOLS

Three inspection protocols have been designed to detect quarantine contamination in bulk fertiliser cargoes. The three levels of inspection are based on assessment of the supply chain and vessel and measures that have been taken to reduce contamination risk. The assessment is applied to the vessel on a hold by hold basis and all cargo and this is referred to as the consignment throughout this document.

In terms of quarantine contamination, **actionable cargo** includes, but is not limited to the following items, dependant on their origin:

- grains and cereal crops (e.g. wheat, barley, oats, maize, sorghum);
- leguminous crops (e.g. beans, peas, soybean, lucerne);
- meals and/or stock feed;
- oilseed crops;
- rice (raw, unpolished, with husks on);
- sugar cane;
- sand;
- soil;
- contaminant plant material (e.g. leaves, weed seeds, twigs, woodchips, bark, etc.);
- other quarantineable items identified in the *Quarantine Act 1908* and other related legislative and regulative documents; and
- animal material e.g. feathers, bird excreta etc.

## 1. LEVEL 3 – High Risk Consignment

For a consignment to be classified as a Level 3, one or more of the stages of the recognised supply chain (manufacture/load port and vessel) do not provide sufficient evidence of contamination control. For example:

- manufacturer/load port has not been AQIS audited; and/or
- vessel has carried [actionable cargo](#) (refer above) within the last six voyages.

The consequence of a Level 3 rating is a high level of AQIS intervention at the border. There are 4 stages of inspection required for Level 3 consignments:

1. Initial hold inspection of all holds
2. Inspection of landed fertiliser at all discharge ports
3. Intermediate hold inspection (ONLY ONE hold of like fertiliser for each importer's shipment)
4. Final hold inspection (ONLY ONE hold of like fertiliser for each importer's shipment)

High-risk cargoes are cleared on a port-by-port basis, meaning that a portion of a consignment discharged in one port can be cleared without being affected by inspection results for the consignment in any other port.

For first port clearance, the option of deep-core sampling is available [*details are currently under development*].

A certificate of cleanliness is a mandatory requirement.

## 2. LEVEL 2 – Medium Risk Consignment

For a consignment to be recognised as a Level 2, all of the stages of the recognised supply chain (manufacture/load port, vessel and voyage) have provided *some* evidence of contamination control. Details of acceptable levels of quarantine control for a Level 2 consignment are provided below. In summary, requirements of a Level 2 are:

- manufacturer/load port has been AQIS audited (every three years);
- manufacturer declaration provided for each consignment;
- vessel has not carried actionable cargo within the last six voyages (refer to actionable list above); and
- the vessel takes either a direct or a non-direct route to Australia.

The consequence of a Level 2 rating is a medium level of AQIS intervention at the border. There are 2 stages of inspection required:

1. Initial hold inspection of all holds
2. In-hold cargo inspection of all holds

### 2.1 Auditing

#### 2.1.1 Manufacturer/Load Port Desk Audit

Manufacturers and load ports wishing to be recognised as part of the Level 2 category must apply in writing to AQIS. Applications will be subject to a desk audit by AQIS and will be assessed on their individual merits with consideration being given to the quarantine risk. The purpose of the desk audit is to confirm that the manufacturing processes, sampling procedures, transport operations, storage facilities and wharf operations are potentially sufficient to ensure the quarantine integrity of the product in terms of contaminants. The process of approval incorporates the following principles:

- appropriate level of rigor in the assessment process;
- equity between the assessment of different applicants; and
- transparency in the process.

The minimum documentary evidence required for an application is at [Attachment 1](#).

AQIS undertakes to process all applications (i.e. conduct the desk audit) within 6-weeks from receipt of the application. The outcomes of the desk audit, either approval to proceed with a formal site audit or reasons for rejection, will be provided to the applicant.

#### 2.1.2 Manufacturer/Load Port Onsite Audit

Once the documentary evidence is assessed as sufficient assurance that the applicant is potentially capable of operating within relevant AQIS requirements, an initial onsite audit of the procedures and facilities will be required. The purpose of the initial onsite audit is to confirm that the manufacturing processes, sampling procedures, transport operations, storage facilities and the wharf operations are sufficient to ensure the quarantine integrity of the product. The initial onsite audit will be undertaken by an AQIS officer or by an authorised AQIS auditor with an appropriate level of expertise.

To maintain a Level 2 status, onsite audits must be undertaken by an AQIS officer or by an authorised AQIS auditor with an appropriate level of expertise every three years. The purpose of the 3-yearly onsite audits is to confirm that the manufacturing processes, sampling procedures, transport operations, storage facilities and wharf operations have either not changed or that any changes do not impact on the ongoing quarantine integrity of the product.

Details of the on-site audit protocols are at [Attachment 2](#). Onsite audits will be scheduled at a time convenient to both AQIS and the applicant.

### 2.1.3 Manufacturer/Load Port Declaration

For a consignment to be classified as Level 2, it must be accompanied by a Manufacturer's Declaration. The declaration must be made on a consignment-by-consignment basis, must accompany each shipment of imported fertiliser and must be presented along with other documents (e.g. AQIS Import Permit etc.) to allow for assessment of the status of the shipment. The purpose of the Manufacturer's Declaration is to provide confirmation to AQIS that the manufacturing processes, transport operations, storage facilities and the wharf operations have not changed since the last AQIS audit in any way that would impact on the quarantine integrity of the consignment.

The declaration must:

- be on letter head of the company holding AQIS Reduced Risk Port status, and;
- be legible and in English, and;
- be dated, and;
- be signed by a representative of the company holding the AQIS Reduced Risk port status
- specify consignment details including name of products and tonnage loaded, and;
- detail the name of the vessel and the voyage number, and;
- detail the bill(s) of lading number(s), and;
- specify the berth the vessel was loaded at; and
- include the date on which AQIS assessed the facility, and;
- verify that there have been no alterations to the premises, associated machinery, manufacturing process and supply chain that would increase the risk of entry of animal/ plant / soil material or their by-products into the consignment; and

A sample Manufacturer's Declaration is at [Attachment 3](#).

## 2.2 Vessel Cleanliness

For a consignment to be classified as a Level 2, the vessel must **not** have carried [actionable cargo](#) within the last six voyages. The purpose of this distinction is to provide a level of confidence that the vessel is free of contamination. As part of the import clearance process, AQIS must be provided with a list of cargo carried within the last six voyages.

A vessel cleanliness certificate will be required.

### 3. LEVEL 1 – Low Risk Consignment

For a consignment to be classified as a Level 1, a number of recognised contamination management strategies must be in place across the supply chain from the point of manufacture through to and including the vessel's voyage. These contamination management strategies are recognised by AQIS as best practice principles that provide high level confidence in the integrity of the consignment in terms of quarantine. Details of the requirements for a Level 1 consignment are provided below. In summary, the requirements of a Level 1 are:

- manufacturer/load port has been AQIS audited (every three years);
- manufacturer/load port has been audited by a third party (annually);
- manufacturer's declaration provided for each consignment;
- sample analysis certificate provided for each consignment;
- vessel cleanliness certificate provided for each consignment;
- surveyors vessel survey inspection report and treatment order, issued at the load-port, provided for each consignment
- vessel is either on its maiden voyage **or** has achieved AQIS empty hold (Level 1) certification **or** has been issued with a loading permit (EX154) for prescribed goods/grains by an authorised AQIS officer as a result of an inspection under the Export Control Act 1982 and the Grain Plant and Plant Product Orders; **and**
- the vessel takes a direct route to Australia.

The consequence of a Level 1 rating is a low level of AQIS intervention at the border. There are 2 stages of inspection required:

1. the AQIS officer on board the vessel will confirm that it has not carried [actionable cargo](#) since its last AQIS empty hold certification (evidence will be found in the ships log or EX154 Prescribed Goods/Grains Loading Permit) (the cargo, load ports and load dates must match those supplied to AQIS for the fertiliser schedule assessment); and
2. the AQIS officer on board the vessel will ensure that there is no obvious contamination (i.e. grain etc on the deck and around the hold).

#### 3.1 Auditing

##### 3.1.1 Desk Audit

Manufacturers and load ports wishing to be recognised as part of the Level 1 category must apply in writing to AQIS and be subject to a desk audit as outline for [Level 2](#) above. The minimum documentary requirements for a desk audit is at [Attachment 1](#).

##### 3.1.2 Onsite Audit

Once the documentary evidence is assessed as sufficient assurance that the applicant is potentially capable of operating within relevant AQIS requirements, an initial onsite audit of the procedures and facilities will be required in accordance with the protocols outlined for a [Level 2](#).

To maintain a Level 1 status, onsite audits must be undertaken by an AQIS officer or by an authorised AQIS auditor with an appropriate level of expertise every three years **and** by an approved third party auditor annually each other year. The purpose of the annual onsite audits is to confirm that the manufacturing processes, transport operations, storage facilities and the wharf operations have either not changed or that any changes do not impact on the ongoing quarantine integrity of the product. Third party auditors must be independently accredited and registered with an International Auditing body.

### 3.1.3 Declarations

It is essential that AQIS maintain confidence in the manufacturing processes, sampling transport operations, storage facilities and the wharf operations. To this end, a Manufacturers Declaration must accompany each consignment (refer to guidelines for Level 2 and the sample declaration at Attachment 3).

To provide an added assurance that the consignment is free of contaminants, samples must be taken by an independent person in line with the AQIS standard detailed at Attachment 4. For a consignment to be classified as a Level 1, it must be accompanied by a Sample Analysis Certificate included in which must be an analysis of all organic contamination. The composite sub sample is to be sent to an independent certified approved laboratory to be sieved and inspected to visually check for organic material contaminants following the procedure and conditions set out in Attachment 4. The Manufacturer's Declaration must confirm that the samples were taken in line with approved methods and will certify that there was no organic contamination in the sample analysed.

### 3.2 Vessel Cleanliness

For a consignment to be classified as a Level 1, the vessel must provide a competent third party vessel cleanliness certificate (including a surveyors detailed inspection report and reference to the use of a man lift for all 'in hold' inspections); **and**

- Must be on its maiden voyage; **or**
- Must have obtained logbook certification by AQIS at Level 1 since it last carried actionable cargo; **or**
- Must have obtained an EX 154 issued by AQIS as a result of an AQIS inspection for prescribed goods/grains exports under the Export Control Act 1982 since it last carried actionable cargo; and

The purpose of these criteria is to provide a high level of confidence that the vessel is free of contamination. As part of the import clearance process, for each consignment, AQIS must be provided with a list of cargoes since a Level 1 classification OR EX154 Loading Permit was granted.

#### 3.2.1 AQIS Empty Hold Certification

AQIS empty hold certification may only be obtained for:

- vessels importing fertiliser into Australia;
- vessels that have undergone an AQIS survey for export grain; or

- vessels that are required to be inspected as part of the Australian cabotage protocols.

The AQIS officer undertaking the inspection will make a notation after the completion of inspections that the vessels holds are L1, stamp and initial the ship's logbook indicating that the vessel has been inspected and assessed as being free from items of quarantine concern.

An original loading permit (EX154) issued for Prescribed Goods / Grain exports is also considered valid documentary evidence of a Level 1 status.

### 3.2.2 Vessel Survey

For a vessel to be classified as a Level 1 it must be accompanied by a vessel cleanliness certificate and a *Vessel Survey, Inspection Report and Treatment Order* from a qualified surveyor. A qualified surveyor is identified as one that has been trained by the importer or assessed by the importer/s to possess the necessary qualifications, skills, experience and resources to successfully conduct the inspection and issue the required certification.

**(Surveyor's skills will be audited by AQIS on a 'per consignment' basis through current inspection procedures prior to any vessel moving to Level 1 status and prior to leaving Australia for subsequent return voyages).**

An example *Vessel Survey, Inspection Report and Treatment Order* is provided at [Attachment 5](#). Guidelines for surveyors are provided at [Attachment 6](#).

### 3.3 Vessel Voyage

For a consignment to be classified as a Level 1, the voyage undertaken by the vessel must not include any cargo activity between loading at a Level 1 load port and arrival in Australia.

#### **4. Import for Manufacturing Under AQIS Issued Permits**

Importers of raw materials for manufacturing have the choice of using either the fertiliser classification system described in this protocol, or seeking a permit for processing if they can demonstrate that their supply chain and manufacturing processes meet certain conditions. (i.e. closed transport and storage facilities at a Quarantine Approved Premises).

Importers wishing to make an application for a new permit should in the first place address their enquiry to:

Quarantine - Import Clearance  
130 Young Street  
PO BOX 69  
CARRINGTON NSW 2294  
Tel (02) 4962 4450  
Fax (02) 4962 4460

## 5. Pre-Arrival Documentation

No later than 5 working days prior to arrival at the first discharge port, the *AQIS Pre-Arrival Fertiliser Information* document ([Attachment 7](#)) and other relevant documents must be lodged with AQIS. Failure to provide all of the information will result in the vessel and cargo being classed as Level 3, high risk.

The minimum information required by AQIS includes:

1. The vessels name;
2. Intended ports of discharge in Australia;
3. Estimated Time of Arrival (ETA) at each Australian port;
4. Quantity of fertiliser to be discharged from each hold at each Australian port;
5. Fertiliser type;
6. Manufacturing location;
7. Loading location;
8. Vessel's six previous cargoes, including load port and country, date (MM/YY) and cargo description. For new vessels please provide details of the maiden voyage;
9. Vessel cleanliness certificate;
10. Bill of lading (B/L), and
11. Importer information contact details.

In addition;

12. For level 1 and 2 consignments, a Manufacturer's Declaration is required; and
13. For level 1 consignments, the surveyor's *Vessel Survey, Inspection Report and Treatment Order* and a sample analysis certificate are required.

It is essential that the importer includes the details of a contact person, so that AQIS is able to forward the assessed chemical fertiliser schedule to the appropriate person.

These details should include the following:

1. The Person's Name
2. Telephone number
3. Fax number
4. Email address
5. Postal address

All information for risk assessment of bulk chemical fertiliser in ships holds is to be forwarded to:

Quarantine - Import Clearance  
 130 Young Street  
 PO BOX 69  
 CARRINGTON NSW 2294  
 Tel (02) 4962 4450  
 Fax (02) 4962 4460

OR

Emailed to [fertiliser.chemical@aqis.gov.au](mailto:fertiliser.chemical@aqis.gov.au)

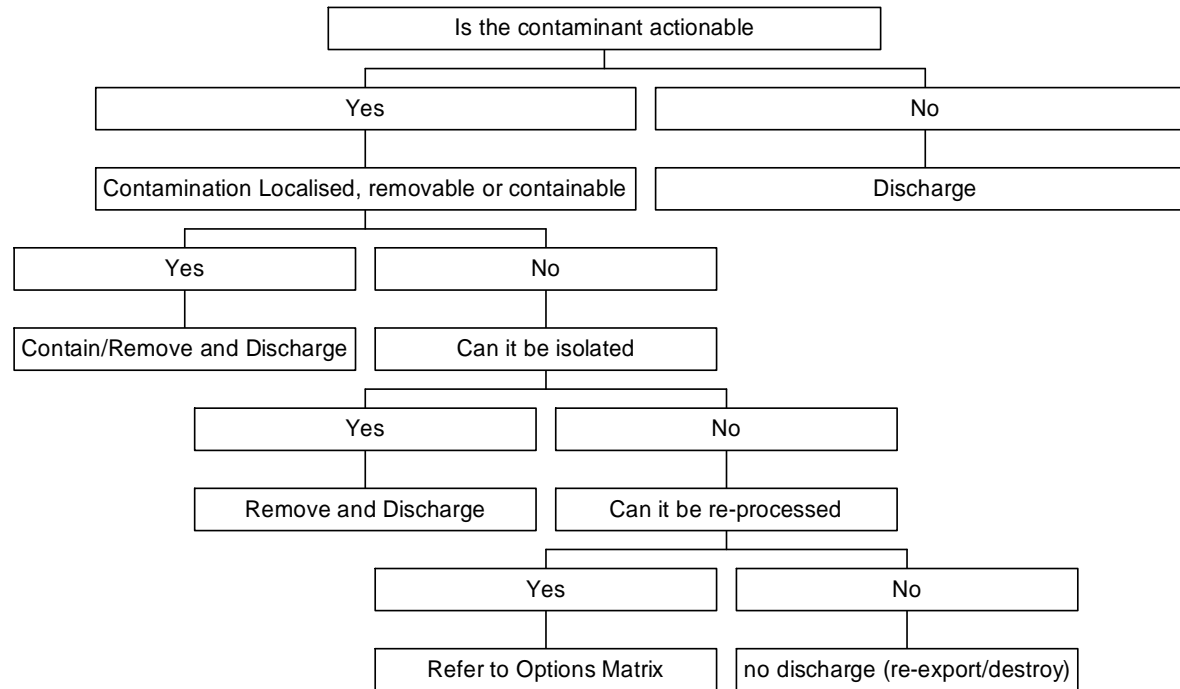
On receipt of the pre-arrival documentation, AQIS will classify the risk status of the vessel. In accordance with the protocols detailed in the sections above, the vessel will be classified as High Risk, Medium Risk or Low risk.

After assessing all the above information AQIS will forward a completed chemical fertiliser inspection schedule to the importer (or the contact person indicated) and to the regional AQIS offices responsible for the discharge ports that have been indicated. Once AQIS has issued this schedule, it is the Importer's responsibility to notify AQIS, in writing, regarding all changes to the existing schedule (including changes to dates of arrival, quantities of discharged fertiliser, ports of discharge etc.)

AQIS is aware that on occasion importers of bulk in-ship fertiliser will share a vessel or hold with other importers of fertiliser or even share the vessel with other cargo. Importers should be aware that the sharing of either a hold or a vessel with the goods of another importer is a commercial decision and is solely the responsibility of the importers concerned. AQIS will not be responsible for any inconvenience, delay, costs or other imposition which an importer may experience as a result of AQIS exercising its powers under the *Quarantine Act 1908* in respect of the goods of another importer in which a commercial decision was made to share either a hold or the vessel.

## CONTAMINATION PROCEDURES

The following decision tree is provided for the management of contamination. When contamination is identified, the supply chain pathway is to be closed (i.e. moved to Level 3) until AQIS is satisfied that the reason for contamination has been identified and corrective actions implemented. The approval for treatment rests with AQIS.



Contaminant	Options								
	Remove/screening*	Heat*	Gamma*	ETO*	Milling*	Change end use*	Herbicides*	Re-process (i.e. sulphuric acid, liquefaction)*	Separation*
Grain	✓	✓	✓	✓	✓	✓		✓	✓
Animal	✓	✓	✓	✓		✓		✓	✓
Plant	✓	✓	✓	✓			✓	✓	✓

\*Controlled Movement under AQIS supervision to Quarantine Approved Treatment Facility

## INITIAL DESK AUDIT

### Background

Manufacturers and load ports wishing to be recognised as part of the Level 1 or 2 category must apply in writing to AQIS. Applications will be subject to a desk audit by AQIS and will be assessed on their individual merits with consideration being given to the quarantine risk. The purpose of the desk audit is to confirm that the manufacturing processes, sampling procedures, transport operations, storage facilities and wharf operations are potentially sufficient to ensure the quarantine integrity of the product in terms of contaminants. The process of approval incorporates the following principles:

- appropriate level of rigor in the assessment process;
- equity between the assessment of different applicants; and
- transparency in the process.

### Documentary Evidence Required For A Level 1/Level 2 Supply Chain Application

1. The importer's details, including contact name, Import Permit number, phone and fax number and email address.
2. The type of facility including diagrams/pictures and extensive plans of the plant.
3. A brief description of the processes that the facility performs.
4. The country of operation, including a brief history of operation.
5. A site plan, particularly in relation to the wharf (including pictures, if available).
6. A list of types of fertiliser manufactured at the site.
7. A copy of the manufacturer's quality assurance and/or work procedures.
8. A flow chart identifying all movements of the fertiliser from mine to ship's hold. Steps should include the mine/plant location and manufacturing location.
9. Storage including terminal storage, seaport terminals and cleaning processes. List of all commodities stored in the same facilities and other commodity storage facilities nearby in the area.
10. Methods of transport including barges, railway, trucks and conveyor systems. This should include all other commodities which are transported using the same transportation or are transported in the direct vicinity and the cleaning process (if any) of transport.
11. Loading facilities including ship belt conveyors, bottom dumpers, hoppers, grabs, front-end loaders, conveyors and any other transfer equipment used. This should include all other commodities, which are loaded using the same facilities or are loaded in the direct vicinity of loading facilities and the cleaning process (if any).

12. Details of the inspection location and access to treatment facilities.
13. A nominated date when the offshore inspection will occur and the expected duration.
14. Details of how samples are drawn for analysis and by which parties and what International Standards are applied
15. Details of sampling process, manual or automatic
16. Details of other commodities transported to or from berths
17. A signed declaration from the manufacturer stating that they are prepared to undergo an AQIS audit every three years and if they wish to maintain Level 1, provide AQIS with an independent audit report every year to verify that no changes have been made to the manufacturing process, supply chain and load port. Any action undertaken to maintain the system as audited, is acceptable.
18. Details of person to accompany the AQIS Officer on site audit or contact details for overseas appointed person.

Applications are to be made in writing (in English) and are to be provided in hard copy to:

Quarantine - Import Clearance  
130 Young Street  
PO BOX 69  
CARRINGTON NSW 2294  
Tel (02) 4962 4450  
Fax (02) 4962 4460

## Attachment 2 - On-Site Audit Protocols

**ON-SITE AUDIT PROTOCOLS****Background**

Onsite audits are designed to confirm that the manufacturing processes, sampling procedures, transport operations, storage facilities and wharf operations provide a high level of confidence in the quarantine integrity of the consignment. To achieve and maintain a Level 2 status, onsite audits must be conducted by an AQIS officer or by an authorised AQIS auditor with an appropriate level of expertise every three years. To achieve and maintain a Level 1 status, in addition to the Level 2 requirements, annual audits must be undertaken by an approved third party auditor. Third party auditors must be independently accredited and registered with an International Auditing body.

**Protocols**

*Auditor:* Name: \_\_\_\_\_

Title: \_\_\_\_\_

Company: \_\_\_\_\_

Qualification: \_\_\_\_\_

*Accompanied by:* \_\_\_\_\_

The aim of this visit was to assess the \_\_\_\_\_ supply chain through \_\_\_\_\_ wharf in relation to its ability to achieve/maintain classification as a 'reduced risk' port. The objective of the audit was to ensure all quarantine risks associated with the supply chain from manufacture, processing to the exporting vessel are identified and controlled. The audit identifies how the quarantine risks are being addressed/controlled to minimise the risk of contamination of fertiliser imports to Australia.

**Initial Checklist**

Is the manufacturing facility located at the load berth? YES/NO

If yes, is the load berth used for fertiliser only (i.e. dedicated)? YES/NO

Is the product brought to the port by an external transport mode? YES/NO

If yes, provide brief details of transport mode:

Truck

Rail car

Barge

Conveyor

Other

If other, describe:

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Is the transport system used for fertiliser only (i.e. dedicated)? YES/NO

Is intermediate storage facility used? YES/NO

If yes, is the intermediate storage facility dedicated for fertiliser? YES/NO

Is wharf storage facility used? YES/NO

If yes, is the loading facility dedicated for fertiliser products? YES/NO

Are there any points in the supply chain where other products including soil, seed, wood chip etc, come within close proximity to finished fertiliser? YES/NO

**Manufacturing Details**

Where is the manufacturer located in relation to the wharf?

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List the type of fertiliser manufactured on site.

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Does the manufacturer have quality assurance and/or work procedures in place for storage/handling of products? If so, provide details including dates of last audits if applicable.

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Inspect the handling systems at the plant (pay loaders, conveyor systems etc.) do they provide sources of possible contamination?

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Are there possible contaminants being produced/manufactured/handled in the local area? If so, list.

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Is the plant clean and tidy?

YES/NO

What procedures are in place to reduce the known risks?

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Are there evident sources of cross contamination? If so, list.

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Is there traffic/transport through the site that could potentially carry contaminants? If so, how are these dealt with?

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After manufacture, is the product screened prior to storage or transport or loading? If yes, describe.

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---

Check raw product receipt areas and detail cross contamination issues.

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Are second-hand bags used for storage of raw product?

---

How is the raw product delivered to the site?

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In terms of quarantine contamination, actionable cargo includes, but is not limited to the following items:

- grains (depending on origin) and cereal crops (e.g. wheat, barley, oats, maize, sorghum);
- leguminous crops (e.g. beans, peas, soybean, lucerne);
- meals (dependant on origin) and/or stock feed;
- oilseed crops (depending on origin);
- rice (raw, unpolished, with husks on);
- sugar cane;
- sand;
- soil;
- contaminant plant material (e.g. leaves, weed seeds, twigs, woodchips, bark, etc);
- other quarantineable items identified in the *Quarantine Act 1908* and other related legislative and regulative documents; and
- animal material e.g. feathers, bird excreta etc.

## Storage Facilities

State location of storage facility (note: there may be multiple intermediate storage facilities).

---



---

What information is provided to workers on quarantine control?

---



---

What signage is used at the facility that relates to contamination and quality control?

---



---

Check records of hygiene activity and company inspection of flow paths.

---



---

Does the plant perform regular vermin baiting programs?

---



---

Provide an assessment of the storage facility(s) in relation to:

- list all commodities stored in same: \_\_\_\_\_

---



---

- cleaning process employed, if any: \_\_\_\_\_

---



---

- storage facilities for other commodities in the area: \_\_\_\_\_

---



---

- standard of facility used: \_\_\_\_\_

---

- means for separation of product: \_\_\_\_\_

---

- how the product is brought in/out of the facility: \_\_\_\_\_

---

- procedure for checking cleanliness of transport mode used: \_\_\_\_\_

---

**Transportation**

What method/s of transport are used to move the fertiliser to the wharf?

---

---

For each method stated, identify:

- all other commodities transported using the same system: \_\_\_\_\_

---

- all other commodities transported in the direct vicinity: \_\_\_\_\_

---

Provide details of the cleaning/inspection process followed and inspected

---

---

---

Detail who provides inspection certification, declarations and check compliance with any quality systems.

---

---

Provide details of where, when, how inspection is undertaken

---

---

Is there a QA procedure covering inspection and certification procedure?

---

---

Provide details of ISO Accreditation

---

---

Date of last independent audit/s

---

Verify audit records

---

What is the procedure in case of contamination for each section of the transport chain?

---

If transfer to another mode of transport, outline details of the following:

- transfer equipment used: \_\_\_\_\_

---

- is equipment dedicated: \_\_\_\_\_

---

- cleaning procedures in place: \_\_\_\_\_

---

If railcar dump pits/truck dump pits used, outline details for each leg of transport chain including:

- inspection procedure followed: \_\_\_\_\_

---

- certification procedures followed: \_\_\_\_\_

---

## Loading Facilities

Provide details of the type of load-out facility

---

State all equipment used (e.g. ship belt conveyors, bottom dumpers, hoppers, grabs, front end loader, conveyors) in the loading procedures. For each identify:

- all other commodities loaded using the same system: \_\_\_\_\_

---

- cleaning procedure followed: \_\_\_\_\_

---

- certification of cleanliness provided, need to be: \_\_\_\_\_

---

Who provides certification of cleanliness?

---

Identify who is responsible for cleanliness of equipment and check records?

---

Is there an independent inspection by a qualified independent person?

---

Inspect and report on the storage areas?

---

Is there separation/segregation of product?

---

Is there cleaning between products?

---

**Port / Wharf Details**

Provide a site plan of the port area, especially in relation to the wharf.

Is the wharf dedicated to fertiliser products? YES/NO

If no, what other products are handled at the port and wharf?

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---

Please state location in relation to other products.

---



---

What are the risks of contamination?

---



---

What procedures are followed to ensure contamination does not occur?

---



---

Is there a policy manual/procedure in place?

---

Who implements/checks procedures are being adhered to?

---

Is there an independent certification of the procedures followed?

---

If no, does there need to be?

---

Is a cherry picker available for vessel inspection?

YES/NO

What are the receipt procedures at the port?

---

---

Detail sampling facilities and procedures to be used at the load port facility during export out-loading

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In the event of contamination what facilities are there for discharge?

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---

What berths are used for the export product?

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**Assessment**

[to be used for third party auditors]

I hereby attest that the procedures, operations, and pertinent infrastructure identified in the AQIS Site Audit Report (on date) have not changed since the last audit performed by (insert name, company & date). I further declare that the management of the manufacturer producing the fertiliser, is committed to ensuring the manufacture, storage, supply chain and load facilities continue to comply with the requirements instigated and documented at initial AQIS audit.

YES

NO

Independent appointed person.

Date

## Attachment 3 – Manufacturer's Declaration

**EXAMPLE MANUFACTURER'S DECLARATION**

(Insert letter head of Manufacturer)

**Manufacturer's Declaration****Date:**..... (Insert date)

<b>Consignment Details</b>			
<b>Vessel</b>			
<b>Product</b>	<b>Metric Tonnes</b>	<b>Load port</b>	<b>Berth #</b>
<b>Bill(s) of lading</b>			

WE HEREBY DECLARE that the product type, Manufacturer, process plant and supply chain to load port terminal have been assessed by the Australian Quarantine and Inspection Service (AQIS) as a Reduced Risk Load Port on (insert date). We further declare that since the last AQIS or third party audit on (insert date) there have been no alterations to the premises or associated machinery that would increase the risk of entry of animal / plant / soil material or their by-products entering the consignment listed above.

CERTIFIED TRUE AND CORRECT

Title person giving signature

---

 Authorised Manufacturer's Representative Signature
**For Level 1 only (strike out if not applicable)**

We confirm that a representative load sample of the products listed above have been independently drawn in accordance with accepted procedures agreed upon and instigated at initial AQIS audit. Analysis and visual examination for organic contaminants has been performed under the auspices of an independent certified approved laboratory or suitably qualified third party inspector.

CERTIFIED TRUE AND CORRECT

---

 Authorised Manufacturer's Representative Signature

## AQIS SAMPLING STANDARD

### Introduction

Sampling is one of the most important functions of the analytical process. No matter how accurately the final laboratory analysis or inspection is performed, the results obtained cannot be any more accurate than the degree of accuracy with which the initial sampling operation was performed.

The sampling process is critical to any analytical activity. Sampling may be carried out by either mechanical or manual means. The manner by which increments are collected or how sampling is carried out is probably the most important operation in sampling. In this document, methods will be addressed for the collection of samples of solid bulk fertiliser at the vessel load point.

### Sampling principles

The basic purpose of sampling is to collect a manageable mass of material that is representative of the total mass of material from which it was collected. The manageable mass of material is called a sample and is subject to certain preparation procedures, which render it suitable for either physical or chemical analysis.

The frequency of sampling, sample size and sample processing are determined by the application of various theories and applied statistics, from which sampling standards have been developed. Since it is required to collect increments from all parts of the lot, it is necessary that the total lot be accessible. In other words, it is of fundamental importance that all particles in the lot have the same probability of being included in the final sample. This is one of the key rules of sampling.

### Methods for sampling of solid bulk fertiliser

#### *Mechanical sampling*

Mechanical sampling is the collection of increments by mechanical means. It is the most reliable method for the extraction of representative samples. Mechanical sampling systems have several advantages over manual sampling, some of which are obtaining samples with better overall precision, ability to collect primary increments from the full cross section of the stream in a single pass (particularly applicable with today's large lots and high capacity flow rates) and ability to sample at the required frequency and is generally a lot more reliable and economical, due to labour costs reduction.

All sampling systems should be operated and maintained according to the original design and manufacturer's recommendations. It is essential that all personnel involved with the sampling system be made aware of the significant contribution that correct sampling has in overall process and quality control. It is essential that personnel are provided with on site training in the principles of sampling, operation and maintenance of the sampling system.

It is essential that sampling systems be regularly inspected and audited to ensure correct sampling and compliance to original design and applicable standard. At a minimum, the three following steps should be used for quality measure of mechanical sampling systems.

1. Critical Inspection – inspection of a sampling system, observing the system under dynamic and static conditions, checking if system components conform to manufacturer design specifications. The critical inspection provides current operating information about the sampling system, recommendations for operation and maintenance.
2. Bias Test – a precision test to evaluate the performance of a sampling system by determining if samples collected and processed by the mechanical sampling system are being collected without bias, with respect to reference samples collected during a test interval.
3. Statistical Process Control (SPC) – in conjunction with periodic critical inspections, SPC is used to give assurance that the same conditions as existed during the bias test actually do prevail throughout the ongoing operation of the mechanical sampling system.

#### *Manual sampling from conveyor belt*

This method provides for obtaining a gross sample of fertiliser by taking increments from high capacity stream conveyor belts. A sample scoop with a 500ml-sample cup and with a three-foot (around 90cm) handle or similar is the preferred tool for sample collection.

Sample increments are taken based on systematic sampling procedures of time base sampling and will vary depending on total tonnage and load rate.

Prior to sampling ensure that the belt system is clean and dry. Verify material to be sampled. Conveyor belts that transport solid materials are typically “V” shaped with the centre of the belt at a lower point than the edges. This has a channelling effect on the product and tends to reduce the stream into a line down the centre of the belt. In order to obtain a representative sample, the whole depth of the stream must be penetrated. Ensure all sample increments are of the same size for a truly representative gross sample. Stand in a position where you can easily reach the centre of the product stream.

Increments are to be collected by inserting sample scoop down and into the centre of the moving product stream until the bottom of the belt is reached and collection scoop is full. Extreme care should be exercised since the moving product will force the scoop in the direction of the flow. Increments shall be placed in moisture proof container with full marks for final delivery to the laboratory.

## Sampling Frequency

The necessary sampling frequency typically decreases as the size of a homogenous lot increases. Guidelines for chemical and physical analysis of fertilisers are listed in the table below. For use in manual systems the sampling intervals have been rounded to the nearest half-minute.

The precise interval for any particular tonnage, load rate and number of sampling increments can be calculated using the following equation:

$$\text{Sampling Interval} = \text{Tonnage} / \text{Load Rate} \times 60 / \text{Increments}$$

Total Tonnes	Sampling Increments	Load Rate t/h			
		400	800	1000	1400
		Sampling Intervals (minutes)			
2,500	120	3.0	1.5	1.5	1.0
3,000	120	4.0	2.0	1.5	1.0
4,000	120	5.0	2.5	2.0	1.5
4,500	120	6.0	3.0	2.5	1.5
5,000	120	6.5	3.0	2.5	2.0
8,000	230	5.0	2.5	2.0	1.5
10,000	230	6.5	3.5	3.0	2.0
12,000	230	8.0	4.0	3.0	2.0
15,000	230	10.0	5.0	4.0	3.0
18,000	300	9.0	4.5	4.0	2.5
20,000	300	10.0	5.0	4.0	3.0
25,000	300	12.5	6.5	5.0	3.5
30,000	300	15.0	7.5	6.0	4.5
35,000	350	15.0	7.5	6.0	4.5
40,000	350	17.0	8.5	7.0	5.0
45,000	350	19.5	6.5	7.5	5.5
50,000	350	21.5	10.5	8.5	6.0
55,000	400	20.5	10.5	8.5	6.0

## **Inspection / analysis process**

Once drawn, samples will be blended and a composite sub sample is to be sieved and inspected to visually check for organic material contaminants.

Sampled fertiliser is to be sieved using a nest of sieves, designed to separate contaminate material from the product being examined. The nest will incorporate at least 2 layers of sieves; with a base dish at the bottom. The sieves will be arranged such that the one with the greatest aperture is on top, descending in order of aperture size so that the finest sieve is at the bottom, adjacent to the dish.

At the completion of each sieve load, any residue is to be examined under lighting of min 600 lux intensity. If necessary, magnification lamps or magnifying glasses will be used to identify residues. The inspection is to be performed under the auspices of an independent certified approved laboratory or suitably qualified third party inspector.

## **Terminology**

**Bias:** the tendency to obtain a value that is either persistently higher or lower than the true value.

**Division:** the process of decreasing the sample mass (without modification of the particle size distribution) where a representative part of the sample is retained while the remainder may be rejected.

**Error:** the procedures of sampling, sample preparation and analysis which are necessarily imperfect and the experimental results will be dispersed about the true figures.

**Gross sample:** a sample formed when all increments collected from a lot are combined for reduction to a laboratory. The total quantity of increments.

**Increment:** the quantity taken by a single pass of the sampling device.

**Lot (sample portion):** a quantity of fertiliser delivered at one time. The lot may be composed of one or more sampling units or sub-lots.

**Manual sampling:** the operation of sampling when the increments forming sub samples and gross samples are taken by human effort using a hand held implement.

**Mass basis sample:** the method of taking increments at uniform mass intervals throughout the sampling unit or lot.

**Mechanical sampling:** the operation of sampling when the increments forming sub samples and gross samples are taken by a sampling machine.

**Precision:** a measure of the way in which a set of observations agree with each other.

**Preparation:** the process of preparing the sample for analysis or testing.

**Reduced sample:** intermediary sample obtained after mixing and reducing the gross sample.

**Sampling unit:** the discrete units (railcar, sections of belt, daily production) which comprise the lot.

**Time basis sample:** the method of taking increments at uniform time intervals throughout the sampling unit or lot.



## Attachment 5 – Vessel Survey, Inspection Report and Treatment Order

**EXAMPLE: VESSEL SURVEY, INSPECTION REPORT AND TREATMENT ORDER**

The inspection should be very thorough with emphasis on, but not limited to the following:-

**HOLD**

	HOLD 1	HOLD 2	HOLD 3	HOLD 4	HOLD 5	HOLD 6	HOLD 7
Man lifts used							
Hatch covers, joints and hinges							
Steel pontoons, horizontal stiffeners and pockets,							
Coamings, pontoon ledges hatch covers							
Tracks and seals, deck-head beams & hatch end beams,							
Ship's side frames, stiffeners, fittings & corner gussets,							
Pipe casings, flanges, guards & securing brackets,							
Spar ceiling & sockets,							
Forward and aft transverse bulkheads, access ladders, platforms and access spaces including ventilation trunking and monitor pipes,							
Tank top plating, ceilings & other metal surfaces, manhole covers, bilges & lower wing tanks							

**DECKS**

All weather decks, framing & scuppers							
Hatch, ends, sides and piping							
Mast Houses and Crane Structures							
Focsle and Focsle Lockers							
Ship's Gear including crane drums and wires							
Superstructure							

Contamination Codes to be used in above tables:

<b>Contamination</b>	<b>Code</b>
Grains/seeds	G
Meals	M
Plant material	PM
Soil/sand	S
Animal material	AM
Other organic	O
Rust	R
Mineral	MN
Other inorganic	I

Other Comments:

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We hereby certify that we have carried out the pre-load Vessel Cleanliness Survey Inspection as per the Hold Cleanliness Checklist and Guidelines and to the specifications of the Charterer.

A copy of the completed Checklist is attached.

Vessel Name: \_\_\_\_\_

Vessel Call Sign: \_\_\_\_\_

Signature: \_\_\_\_\_

Nominated Surveyor for: \_\_\_\_\_

Inspection Times and Dates: \_\_\_\_\_

Name (print): \_\_\_\_\_

Company: \_\_\_\_\_

Distribution: Original to .....(importer) by fax when completed then by mail

Copy to Agent for \_\_\_\_\_

### EXAMPLE: TREATMENT ORDER

To the Master:

You are advised that the vessel will not be used for the loading of the intended goods until the action detailed below has been taken, after which a further inspection will be required.

Your co-operation is sought to assist the surveyor in undertaking his duties on our behalf. This may include a request from our surveyor for assistance e.g. a request to provide extra ship's lighting, etc.

	HOLD 1	HOLD 2	HOLD 3	HOLD 4	HOLD 5	HOLD 6	HOLD 7	DECKS
Clean								
De-Scale								
Dismantle/Remove								

Contamination	Code
Grains/seeds	G
Meals	M
Plant material	PM
Soil/sand	S
Animal material	AM
Other organic	O
Rust	R
Mineral	MN
Other inorganic	I

Note: More than one code indicates more than one condition present. E.g. GS indicates Grains/seeds plus Soil/sand in inspected areas.

Additional Treatment and Remarks Ordered by Marine Surveyor

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Report on action taken to meet requirements of treatment order

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Signature: \_\_\_\_\_ Signed: \_\_\_\_\_

Nominated Surveyor for

(Master Official stamp)

Date: \_\_\_\_\_ Date: \_\_\_\_\_

Name (print): \_\_\_\_\_

Company: \_\_\_\_\_

Vessel Name: \_\_\_\_\_

Vessel Call Sign: \_\_\_\_\_

## SURVEYOR'S GUIDELINES

This document should be considered to be advisory and for use by ship surveyors employed to undertake inspections on behalf of individuals or companies importing fertilisers in bulk in ships holds into Australia.

This document is designed as a *guide only and covers minimum requirements* that should be used by load port surveyors in conjunction with the surveyor's own qualifications, experience, expertise and common sense in order to avoid cargo contamination from the vessel.

### Background

Australia imports several million tonnes of chemical fertilisers every year. Commodities include urea, a range of phosphates and sulphur. Some of these goods are processed prior to being offered for sale. Others (like urea) receive no processing at all and are applied directly to the land.

A large percentage of the total tonnage of imported fertiliser arrives in Australia on board dry bulk carriers in consignments of up to 50,000 tonnes per vessel. It is common for these vessels to discharge parcels of cargo at a number of Australian ports – to suit consumer demands and the storage capacity of the importers in various regions.

The type of ship that is favoured for fertiliser imports is the single deck, geared, 'handy sized' and dry bulk carrier. This class of vessel usually falls in the range of 20,000 Dead-Weight-Tonnage (DWT) to 50,000 DWT. Such vessels rarely have more than five cargo holds or less than four. Ships' gear usually consists of three or four cranes, each with safe weight loading around 25 metric tonnes. The usual method of discharge of these goods is by mechanical grabs that can be attached to ships' cranes. Commonly, cargo is grabbed out of ships' cargo holds and loaded into trucks for carting into store via portable hoppers placed alongside the vessels at the wharf.

The size and type of vessel favoured for use in the Australian bulk fertiliser trades is also the type most favoured for the carriage of grain in bulk. This type of vessel is also widely used in the international log trade. A number of structural members (deck beams) are located in under-deck areas and the use of trimmers usually causes grain to come into contact with these beams. Unless great care and attention is paid by ships' crews to removing grain residues from the upper reaches of cargo holds (involving sweeping off the affected areas while standing on top of the cargo stow prior to discharge), a vessel that has once carried grains will retain traces of that cargo until specific attention *is* given to the relevant areas.

The inclusion of a single grain of foreign seed in a cargo of fertiliser could be sufficient cause for AQIS to condemn the entire shipment and require it to be re-exported. In terms of quarantine contamination, items of quarantine concern include, but are not limited to:

- grains (depending on origin) and cereal crops (e.g. wheat, barley, oats, maize,

- sorghum);
- leguminous crops (e.g. beans, peas, soybean, lucerne);
- meals (dependant on origin) and/or stock feed;
- oilseed crops (depending on origin);
- rice (raw, unpolished, with husks on);
- sugar cane;
- sand;
- soil;
- contaminant plant material (e.g. leaves, weed seeds, twigs, woodchips, bark, etc.);
- other quarantineable items identified in the Quarantine Act 1908 and other related legislative and regulative documents; and
- animal material e.g. feathers, bird excreta etc.

These guidelines are for personnel who inspect vessels intending to load fertilisers in bulk for shipment to Australia. The guidelines assume a standard of knowledge to be expected from a marine surveyor who is well experienced in standard designs of handy sized bulk carriers.

## **GUIDE**

### *Standard*

For vessels proceeding to Australia, no ship-borne contamination is acceptable.

### *Preamble*

Inspections must be carried out during daylight hours only with hatches open and with the use of man-lifts (where applicable) to enable proper access to all areas of holds. Appropriate high-powered hand held lighting and extendable mirrors should be used to assist in inspections.

For Level 1 vessels, man-lifts are mandatory, for level's 2 and 3 vessels, man-lifts are optional.

Attached standard Checklist and/or Treatment order can be used for all vessels.

### *Safety*

Surveyors should adhere to safe working practices. These should include abiding by Country, Port and Local safe practice procedures, using qualified and licensed operators of lifting equipment, ensuring equipment is well maintained and is lifted in a safe manner.

When in any hold space, ensure the hatch is open and vented and a person remains standing by on deck in case of emergency.

The Master should be asked to declare whether any hold(s) have been chemically treated in the past four weeks and, if so, the chemical should be clearly identified and the appropriate safety precautions taken relating to that chemical and the safe entry to any space with it.

### *Cargo History*

Prior to commencing the inspection, the inspector should discover what cargoes the vessel has been carrying. AQIS requires the reporting of the last six cargoes carried. For the purpose of this type of inspection, it is considered prudent to compile a trading history that covers every port of call and cargo operation in the last two years. If a vessel has carried actionable cargo in the last two years, chances are that some residues will remain. It is up to the inspector to find those residues and supervise their removal.

### *Inspecting the Vessel*

#### **1. Accommodation Ladders (including pilot extension ladders)**

This is the first area of a ship that is seen by anyone boarding. These ladders need to be scrupulously clean. If a vessel has recently discharged actionable cargo, there is a strong possibility that it may have been spilled during discharge and has found its way onto the accommodation ladders. Both ladders need to be checked for residues. In the event that the ladders' construction includes any box sections, capable of holding residues, whose internal areas cannot be seen, the ends of the box sections should be permanently closed up using resin or some other permanent sealant.

Accommodation ladders' falls – that are coated with grease or camrax, should be run off their drums and inspected to ensure that no residues are adhering.

#### **2. Upper Decks**

A close inspection of all upper deck areas must be made. Areas under pipelines, walkways and around any deck fittings (e.g. ships' grab storage areas) must be inspected and any loose material must be efficiently removed.

The tops of mast houses and upper deck storerooms must be included in this search.

Ensure that the mooring positions on the forecastle and poop decks are inspected. Check mooring machinery, rollers and mooring ropes. Anywhere that grease has been applied is a potential trap for residues.

Loose scale may present problems. The inclusion of loose scale in a fertiliser cargo is likely to affect the value of the cargo – large particles can block up the screens used by farmers to control the rate of application to the land.

Sheets of loose scale may also conceal residues and for these reasons, all loose material should be removed. The application of fresh paint on deck can be a good idea but mariners should be instructed not to paint over any loose material – grains / organic material are no less of an issue to AQIS if they are painted over.

#### **3. Upper Deck Storerooms**

Any storerooms, located on or adjacent to the upper deck, that need to be accessed during the vessel's intended Australian coastal passage, should be stripped of all contents. The storerooms themselves should be inspected and, if necessary, cleaned. The contents should be inspected and, if necessary, cleaned before being stowed away again.

It is recommended that gear that will be required for use in Australia should be stored in a single storeroom. All other storerooms may then be locked up with padlocks and AQIS should be given the opportunity to place quarantine seals on the locks. Locked, sealed storerooms need not be inspected.

#### **4. Ships' Cranes**

Very few ports in Australia are equipped with cranes for the discharge of fertiliser in bulk. Ships' cranes are nearly always used in these operations. Since ships' cranes will almost certainly be used for discharge operations, it is essential to ensure that crane access ways and cabins are entirely free from residues.

Where cranes have internal access ways, if loose gear is stowed in these areas, they should be treated as upper deck storerooms (see above).

Crane wires and block / hook arrangements tend to be well greased. These areas should be inspected to ensure that no residues are adhering.

If a vessel is fitted with grabs, the grabs need to be closely examined and any residues removed. See also comments about loose scale above.

#### **5. Hatch Covers**

Hatch covers should be opened and closed at least three (3) times each prior to inspection or cleaning, with a view to shaking down any residues of past cargoes. This procedure is extremely important, especially if any of the most recent six cargoes have been actionable.

Hatch covers' wheels and hinges are usually well greased. These areas need to be examined.

The tops of hatch covers should be inspected while slightly opened so that joins between the covers can be seen. Pay attention to water drainage channels fitted on hatch tops. Quick acting cleats should be operated to ensure that no residues are trapped. Securing dogs fitted around the perimeter of the hatch coamings should be cleaned of grease and loose material. It is not uncommon to find residues trapped between washers on these devices.

Drains in coaming track ways should be cleaned out using compressed air or a water jet.

The undersides of hatch covers may be inspected in a partially open position from a personnel hoist during the hold inspection. Where the internal framing of the hatch covers is exposed, it may be preferable to climb up the inside of the hatch covers in the fully opened position. Every section inside open framed covers must be examined.

If the covers are inspected in the fully opened position, do not neglect the parts of the covers that butt up against each other when the hatches are closed.

Hatch sealing rubbers should be closely examined – any damaged rubber should be replaced. It is not uncommon for residues to be trapped between rubbers and the steel of their housing channels.

## 6. Cargo Holds

Cargo holds must be free from any previous cargo residue. They must also be clean and dry and in all respects in a suitable condition, fit and safe to receive and preserve the intended cargo.

It is essential to gain access to every area inside every cargo hold. A single piece of an actionable item, if found included in a cargo of fertiliser may be sufficient cause for AQIS to reject the entire consignment and require it to be re-exported.

A personnel hoist should be used to provide close access to the upper reaches of the cargo holds. The preferred type of personnel hoist for hold inspections is that with a telescopic boom capable of 360-degree rotation. The machine must be large enough to comfortably reach all areas of the hold.

Only suitably trained personnel should operate personnel hoists.

Surveyors should use their imagination when assessing where residues might be found inside cargo holds.

A number of common places where residues has been discovered are:

- Pipe brackets
- Ships' side frame upper brackets – and associated lightening holes
- Angle steel pipe protectors – particularly where these are welded across a flat surface (e.g. deep frame)
- Ventilator trunks in deck heads
- Void spaces around the tops of hold entrance ladders
- Inside damaged pipes – including handrails on combination hold ladders
- All over the under deck beams
- Trapped behind rust scale
- Anywhere there is a tight spot
- Anywhere that is not in plain sight

Surveyors should assess the design of the cargo hold to be inspected and decide which are the most difficult places to get at. Those places that are hard to reach even with a cherry picker are impossible for ships' crews to reach without one. It is in those places that residues are most likely to be found.

Every inch of the cargo holds must be closely examined. If there are any areas that cannot be properly inspected due to ships' fittings, the fittings must be removed to permit the required inspection. For example, if pipelines were protected by steel casings and those casings obstructed the view of what was behind them, the casings must be taken off – regardless of cost – if the vessel is to be accepted for the carriage of bulk fertilisers into Australia.

Chalk may be used to mark the sides and ends of holds after a section has been inspected to ensure that no part of the superstructure is missed with the movement of the man-lift up and down or sideways for cleaning purposes.

Surveyors should use all their senses to search for residues. For example, rotting grain has a distinctive smell – if that odour is present, it is essential to find and remove its source.

If the presence of residues is detected or suspected inside damaged piping, the relevant pipes must be cut off and residues removed. Taping over a hole in a pipe is not acceptable.

If a vessel has any kind of timber sheathing in the holds, it will all need to be removed so that areas behind / beneath it can be inspected.

In summary, no stone may be left unturned!

## **7. General**

It is also required that the following items are checked and reported on:

- All bilge / access way / manhole / tank top covers should be inspected and properly secured.
- Bilge wells should be clean and dry.
- It must be ascertained that ventilator shafts and temperature monitoring pipes are entirely clean. If this is not possible, then such areas must be efficiently sealed. The Master's approval must be obtained before any sealing takes place.
- Tank tops should be free from protrusions (e.g. container fittings, pad eyes etc.) as these would interfere with grab discharges.

As the Charterer's Surveyor, any certificate or statement should indicate that you are certifying that the holds were inspected and were found to be in clean, dry and apparently free from any agricultural product or other specified organic contaminant in accordance with the terms and conditions of the Charter Party.

Attachment 7 – AQIS Pre-Arrival Fertiliser Information

**AQIS PRE-ARRIVAL FERTILISER INFORMATION**

	EXPECTED DISPORT SCHEDULE FOR VESSEL MV “ _____ ” IN TONNES								
	HOLD #	1	2	3	4	5	6	7	8
	Importer								
<b>PORT (ETA)</b>	<b>Fertiliser Type/ Date</b>								
	<b>TOTALS</b>								
Manufacturing/Loading Location									
<b>Voyage (the latest on top)</b>	<b>Date Loading (MM/YY)</b>	<b>Cargoes</b>	<b>Load Port</b>	<b>Load Country</b>					
1									
2									
3									
<b>Bill of Lading Certificate Provided: Yes/No</b>									
<b>Cleanliness Certificate Provided: Yes/No</b>									
<b>Inspector’s Comments:</b>									