



Australian Government

Australian Quarantine and Inspection Service

QUARANTINE APPROVED CRITERIA (QAP)

CLASS 7.2

QUARANTINE INSECTARY CONTAINMENT LEVEL 2 (QIC2) FACILITIES

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PART 1: About Class QIC2 Criteria and the Requirements for Approval

2.1 Scope

7.2 Quarantine Insectary Containment (QIC) Level 2

Class 7.2 – premises utilised for quarantine goods which present a moderate hazard to facility personnel or to the environment. Insects held at this level of containment would not be acting as vectors for any human, animal or plant pathogens that are held above quarantine containment level 2. This would include insects that are endemic but are not widely distributed and insects that are exotic but have a limited ability to disperse and are easily detected visually.

The facility must meet the the PC2 design and construction requirements as specified in Australian/New Zealand Standard TM 2243.3:2002 and 2982.1:1997. The applicable parts of these standards are outlined in Part 5 of this document.

Quarantine Insectary Containment Level 2 or Physical Containment Level 2 is the whole of the space approved by AQIS in accordance with AQIS's class criteria for Quarantine Approved Premises 7.2.

A QIC2 facility may incorporate access and supporting rooms and interconnecting corridors or common space areas after entering through an anteroom. It may comprise a number of like rooms such as three interconnecting QIC2 facilities.

These facilities must be physically separate from offices used by containment facility personnel. Write-up areas may be considered part of the facility where they are compliant with QIC2 requirements. These areas are not permitted to be used for generic office functions and should hold essential reference material only (eg. technical equipment manuals).

A QIC2 facility excludes lifts, stairs and corridors.

Class 7.2 premises are NOT approved for the distinctive needs of other quarantine operations, except where the establishment has separate approval under another class.

Note: A premises holder may keep more than one kind of goods in the one facility, provided the applicable criteria for all those kinds of goods are met.

The work that can be conducted in a facility that is approved for insectary containment includes approval for the rearing of, and experimentation on, insects.

2.4 Requirements for Approval

The applicant must provide AQIS with documentary evidence (certification) that the premises complies with:

- a) All relevant design and construction standards under the Australian Building Code as specified by the Australian Building Codes Board.

To obtain certification, the applicant may choose to utilise the services of:

- a Local Government or Council Building Surveyor, or
- a suitably licensed engineer as listed on the National Professional Engineers Register.

Note: The certification requirements to meet the Australian Building Code can be obtained by:

- contacting your Local Government authority/agency (the authority/agency will vary depending on your State or Territory), or
 - using a suitably licensed engineer to provide a certificate of structural adequacy.
- b) The applicable design and construction standards of the Australian/New Zealand StandardTM (AS/NZS) 2982.1:1997 and 2243.3:2002 (the relevant standards are listed in Part 5 of this document).

Note: The minimum requirement for obtaining this evidence is:

- By contracting an AQIS approved 'third party' assessor.
 - AQIS approved 'third party' assessors can be found on the AQIS website: www.aqis.gov.au
- c) Details of the establishments proximity to 'vacant land' and details of that lands usage if applicable.

Note: For the purposes of QAP approval Vacant land refers to any plot which contains no buildings or usable structures. These areas may or may not have improvements eg sewers etc.

- d) Information on the susceptibility of the establishment to flooding or storm surges and the precautions taken to address these risks. This will require applicants to provide:

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- details about the magnitude and likelihood of flooding or storm surges, and
- the proximity of the establishment to waterways.

If the QAP is prone to flooding or storm surges the following must be provided:

- details of the establishments design features and risk management procedures that will be applied during a flood or storm surge event. This will need to include the likely effective warning time that the QAP would have prior to inundation.

Note: Flooding includes:

- mainstream flooding (an event where water from a creek, river, lake, estuary or coastal waters overflows the natural or artificial banks of the principal watercourses in a catchment);
- flash flooding (flooding that occurs within six hours of the rain which causes the flooding); and
- stormwater flooding (local runoff exceeding the capacity of an urban stormwater drainage system).

A storm surge is a rise in coastal water levels caused by the low pressure area of a storm or cyclone and wind driving water shorewards.

For the purposes of determining approval, AQIS will consider whether the location of the QAP is prone to flooding or storm surges. This will depend on the frequency of these events. The QAP will be regarded as being prone to flooding or storm surges if the floor of the facility would be inundated by a 100 year Average Recurrence Interval (ARI) flood or storm surge event. This equates to a 1 in 100 year flood level, (one flood in 100 years ratio) or an Annual Exceedence Probability (AEP) of 1%.

The documentary evidence to meet the flood prone precautions can be obtained in each state or territory by contacting one of the following government authorities (the agency/authority to contact will vary depending on the State or Territory):

- Planning and Land Authorities;
- Local Councils – town planning sections;
- Relevant State or Territory Departments; and

requesting a ‘Property Information Certificate’ or equivalent documentation.

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If it is not possible to obtain a 100 year ARI or AEP flood level from the relevant local authority, then the highest ARI or defined flood level used by that authority will be taken to be the level for determining if the location is prone to flooding or storm surges.

Risk management procedures might include, removal or destruction of quarantine goods, and the decontamination of containers or equipment which has been utilised with the quarantine material, well before inundation occurs.

The type of goods and the scale of the dealings will be taken into consideration.

- e) A transport plan, detailing how the consignment will be taken from the port of arrival to the QAP. When developing the plan QAP holders will need to ensure the following requirements are met:
- The transport route is the most direct route between the two sites, and
 - the route taken is on designated roads only.
- f) The QAP and all operations must comply with all Local, State and Federal regulations and the relevant State Environmental Protection Agency Requirements.

2.5 Requirements to maintain approval

- a) Any changes to the premises should be carried out in a manner which preserves consistency with:
- the third party certification,
 - conformance to the QAP criteria,
 - compliance with the relevant design and construction standards in the Australian Building Code,
 - the conditions of approval, and
 - continues to comply with any subsequent amendments or revisions to AS/NZS 2982.1:1997 and 2243.3:2002.

Note: A change that significantly effects the overall containment system requires re-certification, this would include structural changes to 40% of the building. If a QAP holder has any doubt as to whether a proposed change to:

- QAP operating procedures, or
- the physical structure of the premises,

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has any potential to reduce the level of quarantine integrity, AQIS approval must be obtained before the change is implemented.

To ensure conformance to the QAP Criteria, AQIS must be:

- notified in writing no less than 15 working days prior to any alterations to QAP operating arrangements (Standard Operating Procedures),
- notified in writing within 15 working days of any alterations to QAP management arrangements.

Additionally, an AQIS Officer may request that documented evidence be provided for compliance with the Australian Building Code or AS/NZS 2982.1:1997 & 2243.3:2002 when additions or modifications have been made to the premises.

- b) Where any structural alterations have been made the premises holder must, with the annual approval form, provide a written declaration outlining details of the alterations made.

Note: This will require the premises holder providing AQIS with a contingency plan detailing how the facility will contain the quarantine risk during alterations. The plan may include a decontamination aspect or instructions about how the insects will be relocated into another room or facility.

PART 2: Specific Requirements for Class 7.2 – QIC Level 2

This part outlines the specific structural and procedural requirements that must be complied with by the holder of approval for a class 7.2 QAP.

2.1 Hygiene and Isolation

- a) The Quarantine Area(s) must be isolated from other operations within the QAP. This can only be achieved by AQIS approved methods.

The nominated method of achieving adequate isolation must be detailed in the application for approval and receive endorsement from AQIS.

- b) The QAP must be managed to ensure that effective separation is maintained between cleared imported goods, domestic goods, imported goods awaiting quarantine clearance, and (in the case of AQIS approved dual import and export QAP), export goods. QAP holders must also recognise that specific Import Permit Conditions and inspection procedures for some commodities may apply in addition to these criteria.

Effective separation of all goods can be achieved by:

- an impervious physical barrier, or
- other AQIS approved methods.

The use of a method must be approved by AQIS and should cross-contamination occur, all goods shall be treated as quarantine goods.

- c) The QAP must be managed in a way that ensures that all buildings and/or structures are maintained in a state of good repair.
- d) An effective pest control system must be in place to ensure that premises are managed in a way that effectively isolates goods subject to quarantine from environments in which pest and disease are likely to become established. A document outlining the control measures must be available to AQIS for audit purposes (example attached). This document may include:
- the use of insecticides, fumigation, rodenticides, periodic inspection, baits and/or traps,
 - a site plan with numbered bait stations, and
 - if applicable, contract details.

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- e) An effective vegetation suppression program must be in place to ensure that all open areas within 30 metres of the facility are managed in a way that effectively isolates goods subject to quarantine from environments in which establishment could occur. A document outlining the control measures must be available to AQIS for audit purposes. This document may include:

- The use of weedicides, fumigation,
- Periodic inspection, and
- If applicable, contract details.

Note: An effective vegetation suppression program would require the eradication of vegetation which could potentially be host to the insects being held within the premises.

Where a QAP is within 30 metres of a site boundry, AQIS may require additional measures to be implemented such as outdoor monitoring.

2.2 Quarantine Area

- a) The Quarantine Area must be of a size commensurate with the proposed quantity of goods being handled.
- b) Quarantine Areas must be managed to allow AQIS Officers to conduct adequate inspections of goods in a timely and effective manner. This includes:
- having illumination to a sufficient level, (within a building this will require a minimum 400 lux in storage areas and 600 lux in quarantine inspection areas),
 - having goods accessible for inspection.

2.3 Security

- a) The quarantine area must be located within a single operational entity, and the QAP holder must have sole control and access to goods subject to quarantine.
- b) All Quarantine Areas where goods subject to quarantine are stored or handled must display quarantine signage to assist in effectively managing the security of these goods. These signs are to be:

- secured on a building/s, racks, fences, gates and/or doors and be visible at all times.
- permanently affixed,
- professionally made,
- made to state 'Quarantine Area – No Unauthorised Entry or Removal of Goods, Penalties Apply, (*Quarantine Act 1908*)' (or as directed for specific quarantine operations),
- on a yellow background, with black lettering.

Note: Cardboard and paper signs are not acceptable. Signs on external structures must be:

- a minimum 600mm x 400mm with lettering a minimum 25mm height, and
- be weatherproof and resistant to the elements

Signs within structures must be a minimum 295mm x 210mm with lettering a minimum 8mm height (example Attached).

- c) The following procedures must be applied to manage the QAP in a way that effectively secures goods subject to quarantine from movement or interference by unauthorised persons:
- AQIS must be immediately informed of any incidents which could significantly compromise the quarantine security of the QAP. This may include structural damage, electrical breakdowns, escapes or unauthorised entry and the removal of quarantine material;
 - quarantine goods must be stored in an area that is securely locked when unattended.

Note: Video surveillance, alarms or other security monitoring methods may also be used.

- d) To assist in effectively managing the security of the facility the following must be applied:
- the doors must be closed when quarantine work is in progress and/or when quarantine goods are being held in the facility,
 - the name and telephone number of the facility manager or other responsible person must be displayed near all access doors, and

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- a quarantine sign be displayed on the entry door to the facility. Such signs must include all requirements as stated in Part 3.2 (a), and in addition, state 'Insectary Containment – QIC2 Facility'.
- e) Where the facility uses alarms or lights to notify personnel that one in a series of doors is open, personnel must only proceed through the doorway when the signal indicates there are no other doors open.
- f) Where maintenance is required within the facility these personnel must follow the same procedural and security routines as premises staff.
- g) Facility windows must be permanently sealed and not able to be opened.

2.4 Operating Procedures

2.4.1 General

- a) The QAP holder must provide a document detailing the entire imported goods pathway. This document will need to include all the quarantine operations.
- b) For quarantine goods the following minimum requirements apply:
 - Goods must be accessible to an AQIS Officer for inspection,
 - The premises holder must be in possession of a relevant Quarantine Order prior to movement of the goods and must comply with all directions specified.

Note: If the status of a consignment is unknown the goods must be considered quarantineable.

- c) A procedure must be in place which ensures that AQIS is notified of any pest or disease infestation.
- d) Packages of insects must be handled in a manner that ensures no egress of insects.

Note: This will require packages to be only opened within the containment facility and the package to be then decontaminated.

- e) All exotic specimen containers must be clearly labelled and cross referenced to a central logbook of insect stocks kept in the facility.

Note: All specimens should be housed in secure primary containers.

This will require the containers to be labelled with the common and scientific name

- f) Standard precautions and work practices are required when working with quarantine goods. At a minimum this will include the use of:
- protective barriers (including the wearing of gloves, covering clothes i.e. overalls, gowns), and
 - good hygiene practices (washing and drying hands after handling quarantine goods and before leaving the facility)

Note: Disposable gloves must be discarded with the quarantine waste.

Dirty clothing must be removed and laundered before re-use. This will require the provision of a written procedure of how protective clothing will be laundered.

- g) When leaving the facility persons must check to ensure that no insects are attached to any part of their body (this can be carried out within the anteroom using a full length wall mirror).
- h) Equipment used or that has come into contact with quarantine goods must be cleaned or rendered safe by an AQIS approved method. AQIS approved methods include, but are not limited to:
- sterilisation,
 - incineration, as prescribed in part 4 – Section 4.3 (Waste Disposal), and
 - disinfection using an AQIS approved broad-spectrum disinfectant.

Equipment must be disinfected before being sent for repair or disposal and where appropriate, equipment may need to be disinfected at regular intervals.

- i) Traps fitted to outlets to arrest the passage of material of quarantine concern must be serviced at regular intervals. A document detailing:
- Service intervals, and
 - History of checking, must be supplied to AQIS at audit.

Note: Waste and other material caught in traps must be treated as per section 4.3 Waste disposal.

- j) To ensure the containment features of the facility are intact a document detailing annual inspection must be available to AQIS for audit purposes. The minimum requirements for this document include:
- An annual inspection report detailing findings, and

- The personnel who conducted the inspection.

Note: Personnel include the holders of the approval, employees or the biosafety committee.

- k) The holder of the premises must provide documentary evidence that screens, filters, and similar equipment have been cleaned in accordance with the manufacturer's specified frequency and procedures. This can be achieved by:

- Supplying the frequency plan and procedures provided by the manufacturer, and
- The date that the cleaning occurred.

Note: Waste and other material caught in screens must be treated as per section 4.3 Waste disposal.

- l) Each person leaving the quarantine area must ensure that there are no insects attached to any part of their clothing or body. Documented work practices must be suitable to achieve this requirement.
- m) Emergency Only exits must not be used except in emergencies.

2.4.2 Pressure Steam Sterilizers

Where the use of a Pressure Steam Sterilizer is proposed, the following applies:

- a) The QAP holder must provide AQIS with information concerning the calibration and certification of sterilisers, and the efficacy of treatment. The minimum requirements for sterilisers are that:
- relevant local regulations for pressure vessels be applied, including the timeframes for the regular certification of the steriliser.
 - Steriliser cycles be calibrated. This can be achieved by the use of:
 - thermocouples or resistance thermometers to ensure that the sterilisation temperature indicated has been achieved, or
 - chemical indicators which progressively change colour with the time exposed at the specified temperature, or
 - biological indicators such as spore strips, or
 - enzyme indicators be used at regular intervals (eg monthly), or

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- other AQIS approved methods.

Note: The timing of the sterilisation stage of the cycle commences when the set temperature is recorded by the thermometer in the drain line.

Where indicators are used they must be placed in several positions in a load, including those least likely to attain sterilization conditions.

- b) The annual checking and certification of sterilisers or heat ovens must be carried out by a qualified technician.

Note: Where an autoclave is found to be defective, the autoclave must be clearly marked to show that it is defective and must not be used for quarantine waste or equipment until the defect has been corrected.

4.4.3 Waste Disposal

- a) Where applicable any quarantine waste must be effectively contained and disposed of in a manner approved by AQIS and be detailed in a document outlining:

Specific procedures for the disposal of any accumulated waste, this may include:

- a section on the disposal of waste that is not subject to import permit conditions;
- a section on waste transportation (where the waste has not been rendered safe at the QAP) by an AQIS approved transporter, or under AQIS supervision.
- Movement within the premises where an AQIS approved method is not available within the quarantine area/facility.

Note: Solid quarantine wastes must be bagged and placed in an unbreakable container with a secured lid for movement within or outside the building to the approved disposal place.

Where waste cannot be disposed of immediately, there must be as a minimum the provision for:

- a separate storage device/area for the temporary holding of goods;
- storage in lidded bins/containers of an appropriate size which are leak and pest proof;
- bins to be labelled 'Quarantine Waste', and
- double bagging of all waste.

Note: The separate storage device/area must be AQIS approved and be within the building that houses the QAP. Provisions must be in place to prevent loss, spillage or unauthorised access.

AQIS approved methods of solid quarantine waste disposal include incineration at a high temperature in a high efficiency Environmental Protection Agency (EPA) approved incineration facility, deep burial or sterilisation by autoclaving.

Minimum autoclaving times after attainment of temperature for all goods, residues or quarantine waste shall be:

- 121°C (core temperature) for 15 minutes, or
- 121°C for 30 minutes where core temperature is not measured.

Where the 15 minute autoclaving time is used, the premises holder must specify how the core temperature has been reached and detail how this temperature was recorded.

- b) All quarantine wastewater must be disposed of by an AQIS approved method. Measures must be incorporated to minimise the disposal of viable quarantineable material (such as eggs, larvae, fungal or other) via the waste water system.

Note: AQIS approved methods include disposal of waste water by an approved municipal sewage system. The use of other waste disposal methods must be approved in writing by AQIS after demonstration of their efficacy to the satisfaction of AQIS. Such methods may require detailed scientific research at the QAP holders' expense.

Additionally, All Quarantine wastewater disposal must comply with requirements stated by:

- The State/Territory Environmental Protection Agency,
- Local Council, and
- Water Board (if applicable).

2.5 Administration and Management

2.5.1 Record Requirements

- a) Record keeping procedures must provide AQIS with the confidence that the system has adequate controls and the necessary evidence to verify identifiable links to goods. This can be achieved by:

- electronic or manual records of all quarantineable goods imported through the QAP. This includes retaining originals or copies of import permits, quarantine entries/directions or transfer approvals;
- retaining records for a minimum period of 18 months after quarantine clearance or disposal of the goods;
- ensuring that records are available within 48 hours for inspection by AQIS.

Note: AQIS will continue to assess whether activities and arrangements have been implemented effectively, and are achieving criteria requirements. If records are unavailable during an audit, AQIS will return to the QAP within 48 hours to continue the assessment of documentation.

- b) Where goods are handled for a third party, establishment operators must have an arrangement in place which ensures that AQIS directions and permit conditions are communicated to both parties.
- c) A record detailing replacement dates for insecticide strips/pads on Quarantine bins.
- d) Records for each consignment of quarantine goods must include:
 - Quarantine Entry Number (where relevant),
 - Import permit number,
 - Date of receipt of goods and country of origin,
 - Specimen type (including scientific name),
 - Number of specimens imported,
 - Comprehensive details of any inclusions (eg. parasites imported with the specimens),
 - Details of any host material that may have been included with the imported goods/specimens,
 - Details about the destruction of the transport packaging (usually required within 24 hours of arrival at the QAP according to the import permit),
 - Location or part of facility where each quarantine item is held,
 - Comprehensive details of rearing, genetic crosses or generational breeding (where applicable)

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- Date of completion of research,
- Details of any treatments,
- Method and date of goods disposal/destruction (if applicable),
- The date and AQIS permission for any movement (including transfer certificates) of goods from the facility, and
- Comprehensive details of any breaches of quarantine goods from the facility.

Notes:

1. A bi-annual summary of records, which includes the information in 4.6 a) i), must be provided at audit or at the request of an AQIS Officer.
2. A logbook (electronic or manual) recording steriliser load, temperature and duration of sterilisation cycle must be maintained.
3. Calibration specifications for all equipment that has a bearing on the quarantine status of the material (e.g. autoclave), along with calibration records must be provided at audit and at the request of an AQIS Officer.

2.5.2 Office and General QAP Requirements

- a) Office and general QAP requirements must provide AQIS with the confidence that applicable health and safety standards have been met, this is achieved by:
- providing a first aid cabinet/kit which is fully stocked and meets the minimum commercial Australian Standard (AS2675-1983: Portable first aid kits for use by consumers),
 - providing vehicle parking for visiting Quarantine Officers,

Note: This may require AQIS identified parking or providing a parking permit.

- ensuring adequate security for any AQIS technical equipment left on the QAP,
- providing access and the availability of:
 - a desk, chair and a telephone with direct outside call access
 - toilet facilities
 - hand washing facilities and a hygienic means of drying hands, and

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- suitable arrangements to ensure amenities are clean.

Note: Additional mandatory requirements apply to QAPs with permanent Quarantine Officers.

- b) The QAP must comply with all relevant safety codes and occupational health and safety legislation.
- c) Design principles and minimisation strategies apply to ensure segregation of drinking water, food and toilet facilities. At a minimum this will require:
 - Drinking water, food and toilets only being located within designated areas of the quarantine facility where goods are not handled, stored or treated.
 - Personnel must ensure that there is no potential for the transmission of harm to humans, animals, plants or the environment.

Note: Minimisation strategies to prevent transmission may include the use of work practices and procedures. This could include the removal of gloves and garments and the washing of hands prior to drinking, eating or use of toilet facilities.

2.5.3 Administration

Administration and documentation requirements must provide AQIS with the assurance that there are adequate controls. This must include:

- applications being accompanied by scale drawings (with dimensions and locations of Quarantine Area(s)), identifying facilities for treatments, nearest main road and parking for Quarantine Officers.
- obtaining an AQIS direction or prior written approval to move, accept, transfer or release any quarantine goods from the approved QAP to another AQIS approved QAP that is not co-located, and
- where applicable, developing a transfer procedure for the safe movement of quarantine goods between co-located QAP. This procedure must be provided at application, and at the request of a Quarantine Officer.

Note: The nominated manager will need to apply in writing requesting authority to transfer quarantine goods to a QAP not co-located when a direction, written approval or an applicable Import Permit has not been issued. This will require details of proposed suitable transport containers if applicable, the intended transport route and any other relevant information to support the case. AQIS may seek further information before making a decision.

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2.5.4 Management

Control and security of the quarantine area is the responsibility of the nominated senior manager of the company/institution.

Note: It is a factor in approving a QAP under section 46A(4) of the Act that management of the QAP be willing to enter into an agreement with AQIS including training courses and/or electronic initiatives as required. Failure to comply with the Approval Criteria or any breach of the Act may result in approval of the QAP being withdrawn or suspended and legal action instigated.

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PART 3: Applicable Australian/New Zealand Standards and Additional AQIS Requirements

This part outlines the specific standards that an AQIS approved 'third party' assessor will assess. The applicable parts of the standards and the additional AQIS specific requirements must be complied with for facilities to be approved.

Note: These requirements are additional to Part 1 (About QIC2 Criteria, the Requirements for Approval), Part 2 (Specific AQIS Requirements for QIC2 Approval).

Australian/New Zealand Standard – Laboratory Design and Construction Part 1: General Requirements (AS/NZS 2982.1:1997)

The following parts of this standard (AS/NZS 2982.1:1997) are applicable to Quarantine Insectary Containment (QIC) Level 2.

3.1 Specific Standards for Insectary Containment – Level 2 (QIC2) Facilities

The following standards from AS/NZS 2982.1:1997 are the minimum for work with Insectary goods at the QIC2 level.

Section 2. General Laboratory Design and Construction Requirements

(Excluding 2.1, 2.2, 2.6 2.7 (a) (vi) & (vii) & 2.7 (c), 2.9, 2.10, 2.11, 2.12 and 2.13)

Note: **2.4 Walls & 2.5 Ceilings** – must be from material that resists attack from insects.

2.5 ceilings - excludes the use of false (suspended tiled) ceilings.

All joints between structural components must be sealed.

Section 3. Reticulated Services

(Excluding 3.7.1 and 3.7.3)

Section 4. Electrical Services

(Excluding 4.2 and 4.3)

Section 5. Ventilation and Air Quality

(Excluding 5.1, 5.2, 5.3, 5.5.1, 5.5.3, 5.6 (b) last sentence only, and 5.7)

Section 6 Health and Safety Requirements

(Excluding 6.1, 6.4, 6.5 and 6.6)

In substitution for 6.2 Safety Showers, the following clause will be applied:

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Clean up provisions are required which maybe:

- Fixed appliances (eg. showers and eyewash stations), or
- Single use apparatus (eg. disinfectant swabs, squeeze bottles).

Note: Where safety showers and fixed eyewash facilities are in use they must comply with the requirements of 6.2.

The approach to all clean up provisions must be unobstructed.

In substitution for 6.3 Hand washing Facilities the following clause will be applied:

Work areas where Quarantine goods are handled must contain either a wash basin fitted with hands-free tap(s), or some other means of decontaminating hands.

Note: Handwash basins must be located inside the facility, near to the exit serviced with hot and cold potable water. Potable water requirements must be met in accordance with AS 3500

Note: Alternatives to wash basins, include:

- Dispensers fitted with approved antiseptic solutions, provided the dispensers can be operated without using the hands, or
- A sink of hands-free operation.

Where a basin is provided for washing hands an antiseptic handwash dispenser must be supplied.

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Australian/New Zealand Standard – Safety in Laboratories Part 3: Microbiological aspects and Containment Facilities (AS/NZS 2243.3:2002)

The following parts of this standard (AS/NZS 2243.3:2002) are applicable to Quarantine Insectary Containment (QIC) Level 2.

3.2 Specific Standards for Insectary Containment – Level 2 (QIC2) Facilities

The following standards from AS/NZS 2243.3:2002 are the minimum for work with insectary goods at the QC2 level.

Section 4.7 *Physical Containment Level 1 (PC1) Requirements*
(Only 4.7.2 (d) applies where applicable)

Section 4.8 *Physical Containment Level 2 (PC2) Requirements*
(Only 4.8.3 (b) and (f))

Note: Mechanical ventilation should be provided to ensure the directional air flow is maintained. A QC2 area may form part of a conforming PC2 area provided the air handler serving the QC2 area or combined QC2 / PC2 areas has air filtration with performance rating not inferior to F4 to AS 1324.

Additional AQIS Requirements

3.3 Specific AQIS Requirements for Insectary Containment – Level 2 (QIC2) Facilities

The following additional standards are the minimum for work with insectary goods at the QIC2 level.

3.3.1 Construction

- a) There must be a minimum of 1 anteroom prior to entry into the insectary.

Note: The anteroom must be of a suitable size to allow materials, equipment and trolleys to pass through with one door closed at all times.

This will require the facility to be physically separated from offices used by facility personnel, and not accessible by the general public.

Suitable hooks for gowns must be provided either in the anteroom or within the facility near the exit.

- b) Doors should open inwards, this requirement will be assessed as flexible depending on the context of the facility and the rooms within.
- c) There must be a method of preventing more than one door being opened at any one time. This can be achieved by:
- Interlocking doors,
 - Alarms and/or lights.
- d) All access doors to the facility must be fitted with self-closing devices. When shut, the doors must be capable of preventing the escape of the species under study (e.g. by the use of seals on all edges of doors).
- e) Transparent sections (such as facility windows) must be permanently sealed and not able to be opened.
- f) Any transparent sections must be either made of impact-resistant material or have some form of protection.

Note: Suitable impact resistance material includes double glazing or reinforced glass (such as laminated with 3M film). Protection, could include the fitting of a mesh screen. Any mesh screen will need to be of sufficient strength to withstand the impact of hailstones or rocks.

- g) Any openings in the walls, ceiling or roof, such as vents, drainage outlets and air conditioning or ventilation inlets and outlets, must be screened at the containment boundary with fine mesh screens having an aperture size small enough to prevent entry or egress of insects. Screens must be of suitable material to withstand the air flow load, to remain undamaged following cleaning and be resistance to attack by insects or corrosion.

Note: An aperture size small enough to prevent entry or egress of insects will require a maximum aperture size of 0.25 mm or 250 microns (um). *The species and size of insect to be held in the facility should be taken into account when determining the appropriate screen aperture size.* Suitable material includes stainless steel mesh of 0.16 mm wire gauge (0.25 mm aperture). Reticulated supply services such as laboratory gases, hot and cold supply water, purified water loops are not required to be secured.

- h) The anteroom and/or airlock and quarantine work areas must have mechanisms in place to deter vermin and control specimens that may escape from their primary containers. Measures which can be used to prevent specimens escaping include:

- Self closing devices on doors,
- Seals on the side and top edges of doors,
- Drop down door seals (fitted to both inner and outer doors of the airlock),
- Sticky pest strip (in the airlock),
- Insect traps (including the electric type), and
- Darkened room

Note: The insect trap used in the anteroom should be of the type effective for the species being contained.

- i) All penetrations, including pipes, cables, power outlets, lights and other service penetrations must be sealed.

Note: Where lights are fitted to ceilings or other facility surfaces, any light fitting penetrations must be sealed in such a way that during normal operation, maintenance or replacement of lamps the seal remains effective in preventing the ingress and/or egress of insects or other pests.

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- j) Walls and ceilings must be white or pale in colour.
- k) Where possible, supporting apparatus (such as pumps, irrigation, heating, cooling and ventilation equipment, plant shading devices, steam steriliser maintenance components) is to be located outside the facility

3.3.2 General

- a) Where drinking fountains are provided they must be of hands-free operation and be within a designated area where goods are not handled, stored or treated.
- b) 'Write-up' areas may be approved as part of a QC4 facility. To be eligible for approval, these areas must comply with QC4 requirements, be constructed such that horizontal surfaces are minimised (eg minimal shelving), must not be used for generic office functions and should hold only essential reference materials (eg technical equipment manuals).