



Quarantine Premises Register		Class
Class Criteria		5.4
June 2003		Page 1 of 5

QUARANTINE PREMISES CRITERIA

5.4 Quarantine Insectaries

NOTE
AQIS advises that these criteria will be revised and reissued during 2006 under Class 7 Criteria

Purpose

Premises utilised for the importing and/or holding and containment of terrestrial arthropods. In addition to this, quarantine insectaries must be prepared to be adaptable to satisfy any additional conditions outlined on an AQIS import permit.

Premises Location

RefNo.	Criteria
507	Premises must be located within 30 minutes (1 hour in larger states) of an AQIS office unless: a quarantine officer is permanently stationed at the premises, the client is willing to pay for travelling time, or; the premises are approved under an AQD.

Quarantine Security for Arthropods

RefNo.	Criteria
908	Different arthropod taxa will require containment in different levels of quarantine security due to the different levels of quarantine risk associated with taxa.
912	All arthropod species must, initially, be held in a maximum security quarantine area of a quarantine insectary until/unless the species can meet the criteria to be translocated into a standard security quarantine area of the quarantine insectary.

Quarantine Security for Arthropods (maximum)

RefNo.	Criteria
916	For all exotic arthropods, newly imported into Australia. Any species of imported arthropod must be held in a maximum security area of a quarantine insectary until it is believed there is minimal risk of parasite/disease dissemination.
920	Very small arthropods, such as early instar thrips or early instar mites.
924	All other arthropods may be held in standard security quarantine areas.

Structural Requirements

RefNo.	Criteria
678	The site of the quarantine insectary must not be subject to flooding, and must have adequate drainage for periods of heavy rain.
681	For new quarantine insectaries, the foundation of the building must be a slab of reinforced concrete, with a minimum thickness of 100mm. The concrete must be specifically pre-mixed to be water resistant.
684	Signs reading "QUARANTINE AREA - AUTHORISED/QUARANTINE PERSONNEL ONLY" (see Figure 1, Appendix B) must be prominently displayed on all main entry points. Signs should display the contact name and telephone numbers (during and after business hours) of the officer responsible for the operation of the quarantine insectary.
688	There must be two anterooms OR an anteroom and an access area between any main entry and the entry/exit point of a medium security quarantine area AND a minimum of three doors (including the main entry point) must be passed through to gain access to a medium security area. See Appendix D for generalised layout of a quarantine insectary.
692	There must be a warning device fitted to the anteroom to indicate, on both sides of each door of the anteroom, when one of the doors is open.
696	Mechanisms must be in place in the all anterooms and/or closed corridors to arrest the passage of an arthropod(s), in the event that the arthropod(s) has escaped its primary containment area.



Quarantine Premises Register		Class
Class Criteria		5.4
12/01/2006		Page 2 of 5

RefNo.	Criteria
700	A fully functioning, lockable door at each external entry/exit point, accessible by key (or equivalent) from the outside, to remain locked to the outside at all times. External entry/exit doors should be fitted with self-closing devices. All doors in the facility must have a continuous insect proof seal formed against the door recess. Doors that open into quarantine areas must open inwards and must close against a raised section of floor. Where present, viewing panels that are set into doors must be fully sealed, non-opening, and constructed from an impact-resistant material.
704	Security alarms should be installed to deter unauthorised access to the quarantine insectary.
708	the building must be arthropod-proof. All external gaps and cracks must be effectively sealed;
712	There must be aspects of the building's structure that can afford protection to the windows and other breakable transparent sections of the quarantine insectary in the event of a inclement weather.
716	The immediate area surrounding a quarantine insectary building must be free of woody vegetation.
720	Floors, walls, ceilings, bench tops, work areas, and fittings must be of impervious and smooth materials. The internal surfaces must be resistant to liquids and chemicals used in the quarantine insectary.
724	Screens that cover building apertures must be constructed from stainless steel or a similar corrosion-resistant material. Screens must be placed over windows, louvres, ventilation points or any other unsealed portions of the quarantine areas, and must be an appropriate gauge of mesh wire and be designed to preclude escape of arthropods.
728	Lights and other fittings, including power points, must be sealed to prevent arthropod escape. Lights must be designed and fitted in such a way that bulb/tube replacement is carried out from the ceiling space, external to the quarantine area OR done in a fashion that will not allow the risk the escape of a terrestrial arthropod(s) of a quarantine concern.
732	Water supplied to quarantine areas should be provided with back flow prevention at the outlet point(s).
736	Where quarantine security areas within the quarantine insectary do not have a mechanism(s) to treat liquid and liquid-borne wastes, all drainage points within quarantine security areas must have traps or screens fitted to arrest the passage of any body that may have an associated quarantine risk.
740	For medium security areas of quarantine insectaries that house arthropods that require water to complete part of their life cycle, there must be a mechanism(s) for the treatment and disposal of waste liquids and liquid-borne wastes capable of removing any quarantine risk associated with those wastes.
744	The known weather patterns of the geographical region should be taken into account in the structure and maintenance of the quarantine insectary.
748	Air conditioning/air handling units are to be housed external to quarantine security areas.
752	Ant exclusion devices must be in place if ant-tended insects are being housed in standard security quarantine areas of quarantine insectaries.
756	Signs alerting people to the presence of the quarantine insectary must be posted on the main entry points to designate the facility as a 'quarantine area' (see Figure 1). Signs must be printed in black lettering, with a minimum size of 10cm, and set on a yellow background.
760	Maximum security quarantine areas must have '100 mesh', or finer, screens fitted to all openings. Where air supply and exhaust ducts are present in high security quarantine areas, they must be fitted with filters or screens and filters that will preclude arthropod escape. The type of filters used will be dependent on the type of air conditioning units installed, but filters should have the ability to remove any particles of quarantine concern that a '100 mesh' pre-filter will not remove.
764	Where exceedingly flat or minute arthropods are being housed, such as early instar mites and early instar thrips, it will be mandatory to have, at least, '100 mesh' covering all openings.
768	For standard security quarantine areas (including glasshouses), '60 mesh', or finer, screens must be fitted to all openings.



Quarantine Premises Register		Class
Class Criteria		5.4
12/01/2006		Page 3 of 5

RefNo.	Criteria
772	Above all, it must be demonstrated that the filter and screen types used are able to preclude arthropod escape.

Additional Operating Procedures for Maximum Security Quarantine Areas

RefNo.	Criteria
896	Organisms imported from overseas, initially, must be unpacked and held within high security quarantine facilities;
900	All effluent liquids must be treated in a manner that has been demonstrated as being effective in maintaining the security of quarantine. All waste disposal mechanisms must be operated by a staff member(s) trained in the use of the device.
904	NO item may be removed from the quarantine insectary without correct decontamination, or removal of quarantine risk (see Appendix C), or without prior written approval from AQIS. All waste disposal mechanisms must be operated by a staff member(s) familiar with the device. Treatment of solid wastes must be done regularly.

Additional Structural Details for Glasshouses to Operate as Quarantine Security Areas

RefNo.	Criteria
804	Glasshouses proposed to be used in quarantine insectaries will not be granted maximum security status because of the apparent higher vulnerability of glasshouses. Glasshouses may only be granted approval to operate as standard security quarantine areas.
808	The roof and walls must be constructed of impact resistant materials OR there must be provision of a device that will protect the roof and walls from hail, storm or other inclement weather.
812	All seals and joints must be sealed to be arthropod proof.
816	All louvres and roof relief vents in glasshouses of quarantine insectaries must have screens fitted that meet the requirements of Appendix B.

Additional Structural Details for Maximum Security Laboratories

RefNo.	Criteria
776	The mechanism(s) for the treatment and disposal of waste liquids and liquid-borne wastes must be capable of removing any quarantine risk associated with those wastes.
780	The mechanism(s) for the treatment and disposal of waste solids must be capable of removing any quarantine risk associated with solid wastes.
784	All apertures must have '100 mesh' screens (constructed from stainless steel or similar corrosion-resistant metal/alloy) forming an effective seal against that aperture (specifications on screens are given in Appendix B).
788	Lighting supplied to high security quarantine area(s) must be artificial or via sealed windows.
792	All transparent sections must be double glazed. Any windows/transparent sections must be fully sealed.
796	For floors that are drained, all drains must lead to a suitable means of liquid and liquid-borne waste disposal.
800	Air-conditioning units must not be housed within the quarantine laboratory. Access for maintenance of units must be external to the quarantine facility. Screens/filters must be fitted on intake and outtake points of air conditioning ducts.

Operating Requirements

RefNo.	Criteria
820	There must be a nominated officer responsible for the operation of the quarantine insectary. This officer must be aware of the requirements and functionings of the insectary, and must be responsible for all aspects of the organisation's quarantine program. The nominated officer responsible for the operation of the quarantine insectary must be in a position of effective control and should be supported by a responsible back-up person. The names and contact details of the nominated officer who is responsible for the operation of the quarantine insectary must be supplied to AQIS.



Quarantine Premises Register		Class
Class Criteria		5.4
12/01/2006	Page 4 of 5	

RefNo.	Criteria
824	It is the responsibility of the officer responsible for the operation of the quarantine insectary to ensure that all staff working within the facility have been appropriately trained with a sound understanding of quarantine principles. All staff must receive training/instruction in the handling organisms of a quarantine concern. Staff should be made aware of the general intricacies in dealing with insects, and they should be aware of the specific problems/difficulties in working with particular types of insects. All staff must have a complete awareness of the agreed procedures and protocols the quarantine insectary operates under.
828	Any person entering the quarantine insectary must adhere to the procedural guidelines that have been developed and agreed upon by the manager(s) of the quarantine insectary.
832	Movements of maintenance personnel in and out of quarantine areas should kept to a minimum. Maintenance personnel are required to undertake the same security and procedural routines as quarantine staff.
836	The external points of exit/entry to the quarantine facility must be locked at all times.
840	Authorisation to gain access to the quarantine insectary must only be given by the officer responsible for the operation of the quarantine insectary.
844	Personnel wishing to gain access to security quarantine areas must not do so when the warning signal adjacent to the door indicates that another door in the quarantine area is open. Personnel may only proceed through a doorway when the warning signal indicates there are no other doors open.
848	Movement in and out of quarantine areas should be kept to a minimum.
852	When biological material is moved within the quarantine insectary, eg. insects are moved from a laboratory to a glasshouse for rearing, due care must be exercised. Containers of living organisms shall be secure to prevent arthropod escape.
856	Procedures and protocols must be agreed and accepted for the intake, treatment and disposal of all goods of a quarantine concern. The procedures and protocols must be documented.
860	In the event that an arthropod(s) escape from the quarantine insectary, the Senior Quarantine Officer or designated officer in that state and the Chief Plant Protection Officer (Department of Primary Industries and Energy), must be notified immediately.
864	When quarantine staff are working with highly mobile arthropods, extra care should be taken to minimise the risk of arthropod escape.
868	Each person leaving the quarantine area and/or quarantine insectary must ensure that there are no arthropods attached to any part of their clothing or body.
872	It is the responsibility of all quarantine staff to ensure high standards of hygiene and cleanliness of the quarantine insectary and personal hygiene. Work practices and cleaning regimes must be suitable to meet this end. All spillages of material of a quarantine concern must be immediately decontaminated and cleaned up with hospital grade disinfectant or 70% ethanol. But at no time in the cleaning regime can the security of quarantine be placed in jeopardy.
876	Where traps are employed the arrest to passage of material of a quarantine concern, the traps must be checked and/or emptied regularly.
880	Where screens are used to cover openings and filters used in air conditioning, they must have the ability to be changed and/or cleaned without breaching quarantine security.
884	Lights should be designed and fitted in such a way that bulb/tube replacement is carried out from the ceiling space, external to the insectary OR the light fittings must be completely sealed into the ceiling surface.
888	Where traps or screens are fitted to drainage points within quarantine security areas, waste and other material caught in traps must be treated to remove all quarantine risks. Traps must be serviced at regular intervals.



Quarantine Premises Register		Class
Class Criteria		5.4
12/01/2006		Page 5 of 5

RefNo.	Criteria
892	<p>Effluent that may contain material of a quarantine concern must be treated in a manner that has been demonstrated as being effective in minimising quarantine risks. Any solid wastes from the quarantine laboratory must be treated to remove all quarantine risks in a quarantine laboratory or anteroom. These items of primary concern for treatment are:</p> <ul style="list-style-type: none"> * all biological material of plant or arthropod origin, and the materials associated with the rearing of plants or arthropods; * all soil and organic material collected in soil/silt traps (where soil/silt traps are installed); * all packaging, bedding and absorbent material; * all disposable laboratory equipment; and, * all floor and room cleanings. <p>The process of treatment must be performed in a fashion so that there is minimal possibility of re-contamination. Where the autoclave or fumigation chamber is located within the quarantine laboratory of the quarantine insectary, the autoclave bag or the contents of the fumigation chamber must be removed from the laboratory immediately after the autoclave or fumigation chamber has completed its operation. Where the autoclave or fumigation chamber is located in the anteroom of the quarantine insectary, the autoclave bag or items to be fumigated must be treated as soon as the items of a quarantine concern are brought into the anteroom.</p>

Requirements

RefNo.	Criteria
666	<p>Quarantine insectaries must:</p> <ul style="list-style-type: none"> * provide containment of terrestrial arthropods imported for research and experimentation to a quarantine standard; * have facilities to permit parcels containing terrestrial arthropods to be unpacked securely and safely; * provide a secure facility for the rearing of, and experimentation on, terrestrial arthropods of a quarantine concern; and, * have facilities to provide for the treatment and disposal of waste products from the facility.
669	<p>There can be two levels of quarantine security within an insectary - maximum and standard. The level of quarantine insectary security that a particular organism will be held in will be commensurate with the quarantine risk associated with that organism.</p>
672	<p>A quarantine insectary may be registered to operate several (separate) quarantine areas with different levels of security. It is possible to have one or more laboratories or arthropod housing areas operating at different quarantine security levels within the one registered facility.</p>
675	<p>It is the responsibility of the quarantine insectary operators to ensure that all aspects of the quarantine insectary meet the legislative requirements made by federal, state, and local governments, such as Occupational Health and Safety, etc.</p>

Application Requirements

RefNo.	Criteria
928	<p>Detail must be supplied on:</p> <ul style="list-style-type: none"> * the organisation that has responsibility for the operation of the quarantine insectary, the general type of research being done, eg. biological control project research, medical research; * the proposed location of the insectary and why the site was proposed; * the nominated person responsible for the insectary; and, * the structural specifications of each quarantine security area, ie. screen mesh sizes, water treatment facilities.
932	<p>All new applications for the construction of quarantine insectaries must be accompanied by detailed scale diagrams of the proposed facility. Diagrams must include site and floor plans.</p>
936	<p>There will be an ongoing program of AQIS inspections to approve the premises (usually on a yearly basis), for the continued operation of a quarantine insectary.</p>