1) **Staff movements**

1.1 The licensed site should be zoned into areas based on disease risk (low to high) to provide appropriate movement restrictions and sanitation.

1.2 Staff should decontaminate prior to coming onto the farm if they have visited any external high risk environments, including processing facilities. *(Operational Procedures Manual: Decontamination)*

1.3 Use dedicated equipment and protective clothing for each risk area (e.g. wild broodstock facility versus growout facility). Any movement, including staff, should be between areas of same risk profiles or from low to high risk areas.

1.4 Restrict public access and movement throughout the aquaculture licence.

2) **Disinfection / hygiene practices**

2.1 All culture unit(s) used to hold stock must be maintained (regular inspection and cleaning) to ensure appropriate hygiene and reduce the risk of disease. Disinfection of culture units between consignments should be considered.

2.2 If appropriate, culture units used to hold stock must be exposed to fallowing, dry out and disinfection between consignments of stock.

2.3 Appropriate sanitation methods (e.g. handwash, footbaths) must be provided and maintained for each risk area.

2.4 All dead and moribund stock must be removed from the culture units as soon as practical (recommended daily).

2.5 All waste water outlet channels and pipes must be regularly inspected and cleaned where possible.

2.6 All mortalities must be disposed of on-land in a manner specified by the South Australian Environment Protection Agency (EPA). *(www.epa.sa.gov.au)*
2.7 General sanitation and health management should be in line with PIRSA guidelines. 
www.pir.sa.gov.au
also see Biosecurity control measures for AVG: a code of practice, FRDC 2006/243

3) Stock monitoring

3.1 Undertake regular (recommend daily) inspections of all stock for the presence of disease, morbidity or unusual behaviour which may indicate the presence of disease.

4) Record keeping

4.1 Retain accurate records of stock. Records include the number (and species) of stock held in each culture vessel, stocking rates, mortalities, incidence of significant stressors and other fish health observations.

4.2 Maintain an accurate record of all stock movements (translocation) onto and off the aquaculture licence including translocation approvals (from PIRSA), the location and contact details of the supplier or receiver, date of supply, the numbers of species of stock translocated and wastewater treatment.

4.3 Record books must be kept for a period of 3 years after the date of the last entry.

5) Monitoring of marine exotic organisms

5.1 A subset (maximum 150 or 2%, whichever is lesser) of all abalone stock must be inspected on arrival at the aquaculture site for the presence of attached marine exotic organisms and the results of these inspections recorded in a log book.

5.2 In the event of a suspected marine exotic the licence holder must inform PIRSA of the suspected marine exotic presence within 24 hours, remove the suspect marine exotic(s) organism, preserve in formalin and make available to PIRSA on request for identification purposes.

6) Reporting requirements

6.1 In the event of an unusually high and unexplained mortality or suspected or confirmed infectious disease, the licence holder is required to inform PIRSA within 24 hours.

6.2 On request, make available to PIRSA the infected stock for the purpose of pathological examinations.
7) Post translocation and separation of stock

7.1 On arrival, all batches of translocated abalone from other farms (or company or compartment) must be separated from resident stock for a minimum period of 2 weeks. Separation involves: separate water supply (i.e. not flow through from other tanks), separate feeding and cleaning system, effective spatial or physical barriers to reduce cross contamination by splashing; and arrangements for controlling access by personnel.

7.2 Sentinel abalone (consisting of susceptible green lip stock) should be exposed to outlet water from translocated stock and monitored for presence of disease.

8) Quarantine facility

8.1 A quarantine facility should be available for high risk stock, particularly wild stock translocated to the license site. A permit should accompany any movements of wild stock.

8.2 Quarantine should include separation, use of sentinel abalone (see section 7 above) and zero discharge of untreated liquid effluent from the quarantine facility to the marine environment.

8.3 Liquid wastes, including water used to transport stock, and solid waste outputs, including all filtered residues and filters, must be disinfected using methods listed in relevant and current PIRSA approved reports / manuals. *(Operational Procedures Manual: Decontamination)*


*see also* Pathogen removal and monitoring in abalone live-holding and processing effluent with specific reference to abalone herpesvirus, DPIWE, Tasmania.

9) Response plans

9.1 The licence holder must have a plan in place in the event of unusually high and unexplained mortalities or suspected or confirmed infectious disease, which should include: immediate contact with PIRSA Fisheries and Aquaculture; sample collection and storage; restrictions on movement of animals, people and equipment; isolation of infected stock; and appropriate disposal and decontamination protocols.
9.2 Disease response plans must be in line with relevant and current PIRSA approved reports / manuals.

see PIRSA disease contingency plan for abalone viral ganglioneuritis

(DAFF Aquatic Animal Health - Enterprise Manual)

10) Surveillance

10.1 An active surveillance program must be adopted to facilitate movement of abalone between States and to overseas export markets particularly. Trade partners (government and industry) are increasingly requesting proof of freedom of disease.

10.2 Active surveillance programs must consider Commonwealth Department of Agriculture, Fisheries and Forestry (DAFF) guidelines.

(DAFF Aquatic Animal Health – Disease Surveillance Guidelines)