



Animal Products Industry Guidelines for Risk Organism Preparedness and Response

21 September 2016



Title

Guidance Document: Animal Products Industry Guidelines for Risk Organism Preparedness and Response

Issue details

Issued by: The Food Assurance Team
Systems Audit, Assurance & Monitoring
Regulation & Assurance

Issue date: 21 September 2016

About this document

The Ministry for Primary Industries (MPI) publishes a variety of guidance documents. Typically these documents either explain the applicable requirements; assist stakeholders to comply with the applicable legal requirements; explain MPI's view of good industry practice, explain MPI's role; or help stakeholders to provide documentation to MPI that will enable the issuance of approvals, official assurances and other documents.

Any guidance on how to comply with the applicable requirements may not be the only way to achieve compliance. Stakeholders are encouraged to discuss departures from the approaches outlined in this guidance document with MPI to avoid expending resources on the development of alternative approaches which may later be considered unsuitable.

The term "must" is not typically used in guidance. In this particular document the term "must" is simply used in the context of quoting or paraphrasing the requirements set out in the related Animal Products (Risk Organism Response Plans) Notice 2008.

Document history

Current Version Date	Section Changed	Change(s) Description
21 September 2016	All	

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Disclaimer

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Contents	Page
1 Purpose	4
2 Background	4
3 Regulatory requirement	5
3.1 Animal Products (Risk Organism Response Plans) Notice 2008	5
4 Definitions	5
5 Movement controls	7
5.1 Overview	7
5.2 Outline of the RORP	8
6 Readiness	9
6.1 Readiness requirements	9
6.2 Designated role holders	9
6.3 Training	11
6.4 Testing	13
6.5 Guidance in design of site	13
6.6 Capability and resources	14
7 Infected place	15
7.1 Infected place requirements	15
7.2 Reporting suspicious clinical signs	15
7.3 Initial investigation	18
7.4 Restricted place declared	18
7.5 Biosecurity response	19
7.6 Livestock control	20
7.7 Exit control	22
7.8 Cleaning and disinfection	27
7.9 Control of effluent/waste	29
7.10 Product and stores control	29
8 High risk area	31
8.1 Area requirements	31
8.2 National livestock standstill	32
8.3 Livestock control	32
8.4 Movement control permitting	33
8.5 Tracing and recall	33
9 At risk area	34
9.1 Area requirements	34
9.2 National livestock standstill	34
9.3 Livestock control	35
9.4 Movement control permitting	35
9.5 Tracing and recall	36
Appendix 1: Risk organism response plan team	37

Appendix 2: Risk organism response team profiles	38
Appendix 3: Induction/refresher programme outline	40
Appendix 4: Inventory of disinfectants and equipment	41
Appendix 5: Suspect clinical signs checklist	42
Appendix 6: MPI incursion investigator instructions	43
Appendix 7: Notify personnel in event of restricted place being declared by MPI	44
Appendix 8: Biosecurity investigation process	45
Appendix 9: Livestock controls	46
Appendix 10: Showering high risk personnel	47
Appendix 11: Gate control	48
Appendix 12: Cleaning and disinfection for high risk vehicle	49
Appendix 13: Cleaning and disinfection guidelines	51
Appendix 14: Waste water and effluent treatment	53
Appendix 15: Disinfectants for FMD virus	54
Appendix 16: Notify personnel in event of biosecurity response being declared by MPI	56

1 Purpose

- (1) This document has been prepared by the Meat Industry Association (MIA) in partnership with MPI. It provides guidance to the meat industry on how to meet the requirements of the Animal Products (Risk Organism Response Plans) Notice 2008. This serves as:
 - a) common guidelines for the entire industry, so in the readiness phase and in the event of a response operators and MPI have a common understanding of what is to happen; and
 - b) guidance to assist operators to meet a minimum level of readiness.

2 Background

- (1) Biosecurity is the number one risk for the meat industry. New Zealand's biosecurity status allows us to export to markets without the barriers faced by foreign competitors. A major biosecurity response – such as for Foot and Mouth Disease (FMD) – would result in overseas markets closing to New Zealand meat products. In the event of a major biosecurity response, overseas regulators and customers will be looking closely to assess how effective New Zealand is in the response. An ineffective response will result in devastating consequences for the industry. An efficient response in which the disease is eradicated quickly will result in resumption of market access sooner. It is therefore vital that all meat processing plants are able to respond quickly and effectively in the event of a major biosecurity incursion.
- (2) This document covers the requirements to be completed and implemented by processors before and in the event of a biosecurity response. Procedures are based on the worst case scenario of the disease being Foot and Mouth Disease (FMD). However, the procedures will be similar for other significant biosecurity threats such as BVD type 2 or peste de petits ruminants.
- (3) MPI has the role of developing biosecurity standards and verifying those standards are met for the animal product industry sectors. This is to rationalise the resources and synergies that exist for food safety programmes under the Animal Products Act and for the management of pests and disease incursions required under the Biosecurity Act. It is the responsibility of industry to ensure that they meet those standards, and so have a minimum level of readiness to respond to a major biosecurity incursion. The following accountabilities have been agreed:
 - a) Industry and MPI, in partnership, will develop and maintain guidelines for risk organism preparedness and response.
 - b) Operators are responsible for developing and implementing onsite RORPs to meet the requirements of Animal Products (Risk Organism Response Plans) Notice 2008.
 - c) Operators are required to have planned how the implementation of RORP will occur in the event of a response, and have systems that are able to be verified.
 - d) MPI is responsible for providing advice to industry which assists them to develop and implement Risk Organism Response Plans.
 - e) MPI VS is responsible for verification of Risk Organism Response Plans to confirm they meet specified outcomes.
- (4) All export animal product operations other than operators of poultry, egg, seafood and bee products are required to implement and maintain operational, site-specific, risk organism response plans (RORPs).
- (5) These are voluntary guidelines for industry-good purposes. Processors are free to go beyond these guidelines and provide additional detail (and indeed, are encouraged to do so). MPI Verification Services will use these guidelines in verifying compliance with the Animal Products (Risk Organism Response Plans) Notice 2008.

3 Regulatory requirement

3.1 Animal Products (Risk Organism Response Plans) Notice 2008

- (1) The regulatory requirement for operators is the Animal Products (Risk Organism Response Plans) Notice 2008.
- (2) An export animal product operator is required to implement and maintain operational, site specific, risk organism response plans. An operator must ensure that they:
 - a) are prepared for plan verification; and
 - b) have planned how the plan will be implemented in the event of a response.
- (3) A risk organism response plan must include the following minimum requirements:
 - a) a person designated as the Site Coordinator:
 - b) a description of personnel training and awareness:
 - c) a description of proposed movement control:
 - d) a description of product treatment and processing:
 - e) a description of proposed organism containment, including control of personnel, animals, vehicles, plant and equipment, waste streams:
 - f) a description of decontamination procedures including, cleaning and
 - g) sanitising:
 - h) a description of proposed controls in relation to the segregation and trace
 - i) back of animal products:
 - j) a description of proposed controls of exports including transfer certification
 - k) and export certification.
- (4) Risk organism response plans will be subject to annual verification.

4 Definitions

Biosecurity Act 1993 (BSA)	Is administered by the Ministry for Primary Industries. It is the primary legislation providing a range of powers, duties and obligations to enable prevention of harm or risk from unwanted organisms
Cleaning and Disinfection (C&D)	The practice of cleaning and disinfecting together to ensure a comprehensive process for the reduction and elimination of viral load
Controlled Area	An area that a Chief Technical Officer has declared a controlled area under and for the purposes of Section 131 of the Biosecurity Act 1993. There are three areas: <ul style="list-style-type: none"> • Restricted Place – an Infected Place - the site is infected or suspected. • High Risk Area – broadly within 50Km of an infected place, no risks goods may exit the area. • At Risk Area – nationally, all movements of livestock will be suspended under a National Livestock Standstill. This may be gradually lifted by region/island as the location of the infection is confirmed.
Disinfection Action Plan (DAP)	A disinfection implementation plan that integrates the requirements and information provided by the disinfection operational plan with the needs and special features of the given site to ensure an effective and safe disinfection operation.
Foot and Mouth Disease Virus (FMDV) referred to	A highly contagious viral disease which affects cloven-hoofed animals such as sheep, cattle, pigs, goats, llamas and deer. It can be spread by saliva,

as Foot and Mouth Disease (FMD)	mucous, milk, faeces and can be carried on wool, hair, grass, footwear, clothing, livestock equipment and vehicle tyres.
High Risk Area	A High Risk Area is a Controlled Area for restricting the movement of all High and Medium Risk Goods covering all of the regions within approximately 50km radius around an Infected Place. Checkpoints, Roadblocks and Signage will be placed at the boundaries of the area and Disinfection Stations will be present throughout the High Risk Area.
High Risk Processing Area	At an Infected Place, it is the area where suspect infected livestock or product have been present, and so risk organisms may have contaminated the area. At a processor this is almost certainly to be the Yards. If the suspect risk organism has been identified in the slaughter floor or boning room or if livestock from a mob identified in the yards has gone into processing, it could extend to slaughter floor and/or boning room. Personnel working in a High Risk Processing Area will be subject to controls, including showering, and the area will need to be cleaned and disinfected.
Incident Controller	Responsible for the coordination and direction of teams carrying out activities on site to ensure the delivery of the required response objectives and outcomes.
Infected Place (IP)	A place where infected animals or risk organisms are present or a defined area in which a risk organism exists or is suspected.
Initial Investigating Veterinarian (IIV)	Veterinarian set to be deployed on-site during the investigation phase of a suspected exotic disease e.g. foot and mouth disease. The IIV network is available at all times and provides a good geographic coverage of the entire country to ensure that fast-spreading diseases are investigated within the required timeframes as soon as notified to MPI.
Low Risk Processing Area	The areas in a processing plant which have not come into contact with suspect livestock or product. These will most likely be the offices and workshops, but could include the boning room and slaughter floor if the identification occurred in the yards before any livestock from that mob made it onto the slaughter floor.
Movement Permitting	The processing of movement requests in accordance with the conditions and movement restrictions specified in the Controlled Area notice
National Biosecurity Capability Network (NBCN)	New Zealand's field team in a biosecurity outbreak, with AQ contracted by MPI to manage the NBCN. Many different organisations are members of the NBCN. In the event of a biosecurity outbreak these organisations will provide resources for the response (for which the organisations will be paid).
National Livestock Standstill	A Controlled Area under the Biosecurity Act restricting the movement of High Risk Goods (including susceptible animals and their germplasm) throughout New Zealand.
OIE	The World Organisation for Animal (OIE) is an intergovernmental organisation for improving animal health worldwide and is a reference organisation for the World Trade Organization
Restricted Place (RP)	Any place that an Inspector or an Authorised Person has declared to be a restricted place under Section 130 of the Biosecurity Act. A 'Restricted Place' may not be infected but may be at high risk and require movement restrictions.
Risk Goods	Any organism, organic material, or other thing, or substance, that (by reason of its nature, origin, or other relevant factors) it is reasonable to suspect constitutes, harbours, or contains and organism that may cause unwanted

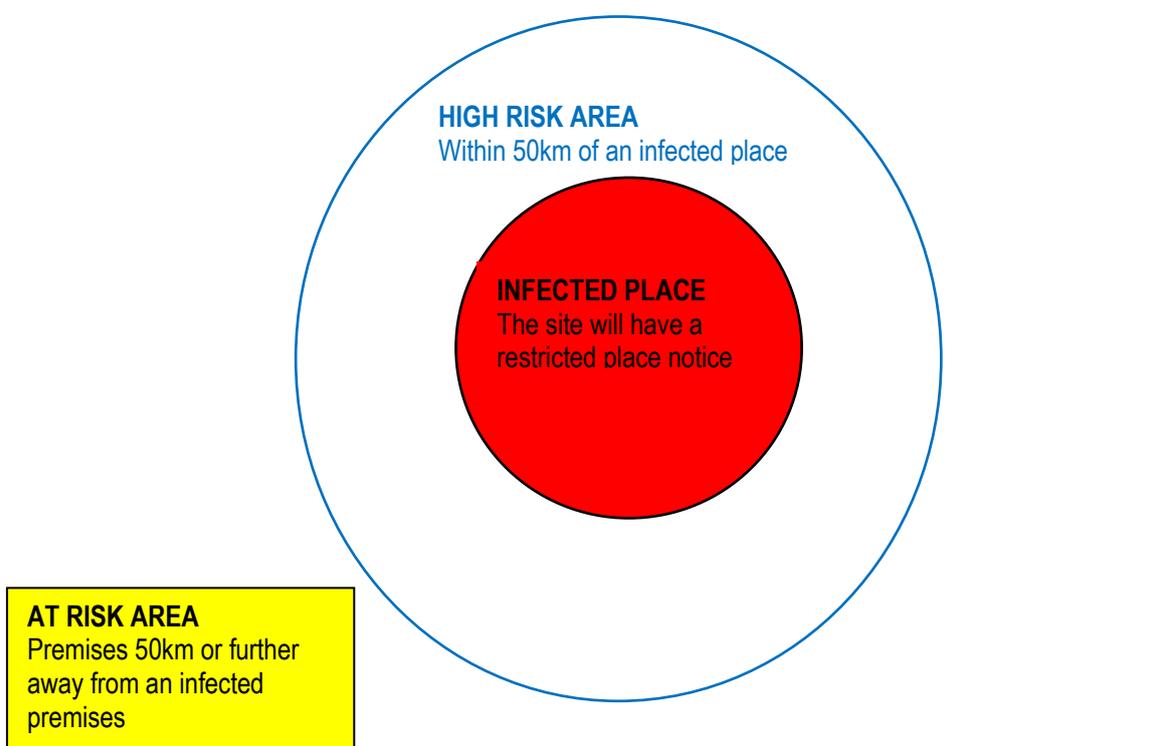
	harm to natural and physical resources or human health in New Zealand, or interfere with the diagnosis, management, or treatment, in New Zealand, of pests or unwanted organisms.
(High) Risk Goods	All Foot and Mouth Disease susceptible animals and their germplasm.
(Medium) Risk Goods	Items that are the product of or have been in direct contact with susceptible animals and their germplasm (i.e. livestock trucks that carried infected animals, or meat from infected animals).
(Low) Risk Goods	Items that are the product of or have been in contact with Medium Risk Goods.
Risk Organism Response Plan (RORP)	A readily available response plan verified to ensure there are response systems to stop the dissemination of risk organisms from an operators premises by containing, destroying and decontaminating any conveyors
RORP Site Coordinator	The person nominated by the company to co-ordinate and develop the Risk Organism Response Plan at the processing site.
Simulation	To physically act out an incursion of Foot and Mouth Disease in New Zealand.
Testing	To undergo a desktop enactment of an incursion of Foot and Mouth Disease in New Zealand.

5 Movement controls

5.1 Overview

- (1) In the event of a major biosecurity disease (such as FMD) being confirmed, MPI will put in place movement controls.
- (2) Immediately, a National Livestock Standstill will be declared to prevent movement of susceptible livestock across the entire country. This will be in place until MPI have determined the locations of the disease.
- (3) The High Risk Area will restrict movements of risk goods in an area surrounding the Infected Places immediately following confirmation. The High Risk Area generally covers all regions in which the approximately 50Km radius around an Infected Place overlaps, using geopolitical boundaries that are easily understood. There could be multiple High Risk Areas depending on the location of the disease and its spread before it is first detected. Boundaries of the High Risk Area will be communicated by MPI as soon as they are established. Checkpoints, roadblocks and signage will be placed at the boundaries of the area. All risk goods (including susceptible livestock and their animal products) will require a permit to move within, into and out of the High Risk Area.
- (4) Infected or suspect infected places will have a Restricted Place Notice on them, making them subject to strict controls. A Restricted Place Notice is a legal notice served by an authorized person under the Biosecurity Act. Movements of all risk goods will cease immediately. Additional directions under the Notice include:
 - a) count the number of livestock;
 - b) isolate suspect livestock;
 - c) maintain boundary fences;
 - d) prevent effluent from draining onto roads, pastures, and watercourses;
 - e) wash and disinfect hands, footwear and outer clothing on exit;
 - f) provide assistance as required.

- (5) Infected livestock at the site will be destroyed and disposed of, areas which may be contaminated will be disinfected, and people who have been in contact with livestock and suspect raw animal products must have washed or showered before they leave the site.



5.2 Outline of the RORP

Background	
Readiness	The requirements on an operator to maintain readiness during “peacetime”.
Response: Infected Place	The requirements on an operator as soon as there is suspicion that the site may have an infected animal or suspicious lesions found at post mortem examination. This begins with calling the MPI Risk Organism hotline and an investigation may be initiated. If confirmed, the plant must immediately begin its Infected Place part of the RORP, with strict controls (i.e. washing/cleaning) being placed on movements of personnel, vehicles and product to prevent the spread of the disease.
Response: High Risk Area (within 50km of an infected site)	The requirements on an operator when their plant is within a High Risk Area declared by MPI. MPI will implement very strict movement controls for livestock within 50km of an infected place (High Risk Area) and no livestock or Risk Goods will be allowed to leave the area except by MPI permit.
Response: At Risk Area (Outside of 50km of Infected Place)	The requirements on an operator when their plant is outside the High Risk Area declared by MPI. Once the national livestock standstill has been lifted, if your premise is outside of 50km of an Infected Place you are within an At Risk Area. You will not be issued with a notice of direction, but your premises must comply with movement control restrictions into and from restricted place and high risk areas.

6 Readiness

6.1 Readiness requirements

- (1) Operators under the Animal Products Act are required to have planned how the implementation of RORP will occur in the event of a response, and have systems that are able to be verified. All operators must have an up-to-date RORP readily available in the event on an emergency.
- (2) Outside of a response, the operator should also:
 - a) identify key personnel for a response;
 - b) ensure that there is an ongoing training programme, with personnel given basic instruction in identification of clinical signs of significant diseases (including FMD) in induction training, refresher/awareness materials, and training of key personnel; and
 - c) test the plan.

6.2 Designated role holders

- (1) The day-to-day manager of the Risk Management Programme (RMP) or Export Approved Premises or their delegate is responsible for RORP procedure maintenance and implementation of response procedures at the premises in the event of a risk organism emergency. This individual should be designated as the RORP Site Coordinator.
- (2) In addition to the RORP Site Coordinator, key roles are to be identified and role holder responsibilities documented for a Risk Organism Response Plan Team consisting of:
 - a) Back up RORP Site Coordinator;
 - b) Exit Control Leader;
 - c) Cleaning and Disinfection (C&D) Leader;
 - d) Product & Stores Control Leader; and
 - e) Ante-Mortem Leader/Livestock Leader
- (3) Designated personnel members are to be trained and ready to fulfil their roles, and understand their places in the overall chain of command.
- (4) In considering the appointment of a RORP Team, consider when a plant is operating multiple shifts. In such circumstances, a plant could have a team for each shift, or deputised function for people at plant to ensure each shift is covered.
- (5) The RORP Site Coordinator is responsible for determining and documenting the chain of command at the plant, and ensuring that MPI VS on site are kept informed of the chain of command including the name and contact of the Site Coordinator and Back up Site Coordinator. MPI will maintain a current register of all meat processors including the names and contact details of the Site Coordinators and Back up Site Coordinators.
- (6) In considering the chain of command, managers in multi-plant companies should consider other plants and national office.
- (7) The RORP Site Coordinator should engage with the MPI Verification services vet on site.

Table 1: Risk Organism Response Plan Team

Role	Person	Job Title	Contact (Inc. after hours)
RORP Site Coordinator			

Role	Person	Job Title	Contact (Inc. after hours)
Back up RORP Site Coordinator			
Exit Control Leader			
Cleaning and Disinfection Leader			
Product and Stores Control Leader			
Ante-Mortem/Livestock Leader			
MPI Verification Services			
AQ			

Table 2: Risk Organism Response Team (RORP) Profiles

RORP Site Coordinator and Back up Coordinator Leads risk organism readiness and response. Responsible for the RORP	
Readiness	Maintain awareness of personnel
	Maintain induction training
	Maintain RORP
	Available for audits of RORP
Response	Coordinate with MPI investigation
	Implement RORP
	Coordinate Team
	Liaison with company HQ and MPI
Exit Control Leader Responsible for coordination of exit and entry procedures during a response	
Readiness	Maintain awareness of exit control plan
	Maintain required inventory
	Check facilities (showers, truck washes, etc.) are in working order
Response	Security of unattended gates and perimeter
	Control exits
	Vehicle holding requirements
	Records of entry/exits
	Clean and disinfect livestock truck suspect mob arrived in
	Showering of personnel from High Risk Processing Areas
Cleaning and Disinfection Leader Responsible for coordination of cleaning and disinfection procedures during a response	
Readiness	Maintain awareness of C&D plan

	Maintain required inventory of disinfectants and equipment
Response	Cleaning and disinfection of High Risk Processing Area as per MPI requirements
	Effluent control and disinfection
	Waste water control and disinfection
Product and Stores Leader	
Responsible for coordination of product storage procedures during a response	
Readiness	Maintain awareness of product and stores plan
	Maintain product inventory
Response	Product isolation requirements
	Maintenance of unaffected product integrity
	Inventory control methods
Ante-Mortem/Livestock Leader	
Responsible for coordination of stock unloading/holding procedures during a response	
Readiness	Maintain awareness of livestock plan esp. surveillance and segregation requirements
	Ensure fences are in a stock proof condition
	Identify suitable pens for segregation of suspect livestock
Response	Suspect pen requirements per species
	Protective clothing requirements when dealing with livestock
	Livestock truck holding areas
	Increase surveillance

6.3 Training

6.3.1 RORP team training

- (1) Operators should ensure that people with RORP responsibilities have adequate training and awareness, and meet any prescribed competency standards to ensure effective implementation of RORP procedures. Operators should include the MPI VS vet on site in training to ensure familiarity with respective roles.
- (2) The Risk Organism Response Team should be able to:
 - a) describe responsibilities for the RORP, including the specific tasks for their roles in the event of a response;
 - b) describe the actions required when there is a suspected significant biosecurity threat; and
 - c) describe the controls for a suspected risk organism response.

6.3.2 Induction/refresher training

- (1) All personnel should have basic awareness of the clinical signs of major livestock disease and their responsibilities in the event of a response as part of their induction or refresher training. This should:
 - a) explain the importance of biosecurity for the industry and New Zealand;
 - b) describe the plant Risk Organism Response Team;
 - c) describe the duties of personnel in the event of an investigation, declaration of a biosecurity emergency or if the plant is declared an infected place (including the need to maintain strict confidentiality during an investigation, the need to continue processing livestock in the yards, and the likely duties including cleaning and disinfection and exit control);

- d) explain that “High Risk Processing Areas” have had direct contact with suspect livestock or animal product (i.e. their clothing or footwear may be contaminated). This includes the yards. It may also include the slaughter floor and boning room (depending on where livestock from a suspect mob have gone in the process). Personnel who have been in a High Risk Processing Area may be required to shower or have a thorough wash before leaving the plant at the instruction of MPI, and no work clothes may leave; and
 - e) explain that “Low Risk Processing Areas” have not been in contact with suspect livestock or animal product. These include the offices, workshops or storerooms who have not come into contact with livestock or animal product. Personnel who have only been in Low Risk Processing Areas will exit normally.
- (2) In addition, personnel who handle live animals (i.e. yard staff) should also receive training to enable them to:
 - a) identify basic clinical signs of major diseases in livestock (limping; blistering on mouth, muzzle or hooves; or drooling, tooth grinding and chomping); and
 - b) describe the process for immediately notifying supervisor or veterinarian when animals are seen with possible clinical signs.
 - (3) Plants should also undertake refresher/awareness promotion (i.e. posters, pamphlets).

Table 3: Induction/Refresher Programme Outline

<p>Importance of biosecurity Required for access to markets If there is a biosecurity incursion, an efficient response will allow the plant to resume work quickly.</p> <p>Your company has a plan in place in case of an outbreak. There are numerous diseases which could occur, but the worst case is Foot and Mouth Disease (FMD).</p> <p>Clinical signs of major diseases</p> <ul style="list-style-type: none"> • Slobbering and smacking lips • Shivering • Tender and sore feet • Sores and blisters • Raised temperature <p>Immediately contact supervisor or MPI Veterinarian!</p> <p>Risk Organism Response Team Leading any disease response at this plant is the Risk Organism Response Team. The RORP team at this plant consists of: [INSERT NAMES OF RORP TEAM].</p> <p>Duties of personnel in event of response</p> <ul style="list-style-type: none"> • Implement any containment instructions given by MPI vet or Incursion Investigator (given under Biosecurity Act). • During an investigation do NOT contact people outside plant about the investigation (a false rumor could cause considerable damage to the NZ economy).
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- You may be a biosecurity risk - employees and their vehicles may not leave the site unless undergone cleaning and permitted to leave.
- “High Risk Processing Areas” are areas that have had suspected infected livestock or animal product. It automatically includes the yards and livestock trucks. Personnel who have been in a High Risk Processing Area will be required to shower before they leave.
- Containment is vital. Do not move from a High Risk Processing Area to a Low Risk Processing Area.
- Low risk personnel are those who have not been in contact with livestock or animal product.
- Continue production as directed.
- Avoid movement around the site.
- Personnel may be required to stay to do a clean down of the site.
- After leaving site, personnel should keep away from livestock if possible.
- Meat and equipment should not be taken off site.

6.4 Testing

- (1) There should be an annual test of a major biosecurity outbreak, either for a simulated infection at plant or for a plant at risk, by the RORP Site Coordinator and RORP Team. This is to test familiarity of key personnel in their roles, and test whether capability meets requirements. Questions to ask include:
 - a) Is the RORP up to date and fit for purpose?
 - b) Are key personnel familiar with their roles in a response?
 - c) Is the capability and resources in place (i.e. up to date inventories of disinfectant)?
- (2) This can be combined with annual trace back/trace forward/recall exercises as part of maintaining accreditation to other standards. It is advisable to include the MPI VS vet in annual testing. You may consider doing this immediately before the annual verification of the RORP by MPI.
- (3) At least every three years, as part of testing, there should be simulation of at least one part of the possible response in the event of clinical signs of disease being detected or the plant being declared an Infected Place:
 - a) Reporting of clinical signs and initial investigation process;
 - b) Livestock controls;
 - c) Exit controls;
 - d) Cleaning and disinfection controls;
 - e) Effluent and waste controls;
 - f) Product and stores controls.
- (4) It is important that the MPI VS vet be notified in advance that this is only a simulation (to avoid possible miscommunication).
- (5) Any documentation or discussion of a simulation should be clearly marked as “EXERCISE ONLY”. It is important that MPI be notified in advance of the simulation.

6.5 Guidance in design of site

- (1) In considering the design of the site and any developments/alterations, it is helpful to consider biosecurity preparedness. Factors that may be considered in design of a site include:
 - a) Livestock are kept as isolated from other areas as far as possible;
 - b) A livestock pen with separate contained drainage for potentially infected livestock;
 - c) Fences and gates are secure to ensure containment of livestock and prevent uncontrolled exit;
 - d) Vehicle entrances and exits and parks – if possible, to ensure that high risk vehicles can be separated as far as possible from low risk vehicles;
 - e) Potentially contaminated areas such as yards, slaughter floors, boning rooms, hides and skins sheds, and byproduct areas can be isolated;

- f) Processing facilities that allow for easy cleaning and disinfection;
- g) Drainage from likely contaminated areas can be contained and treated;
- h) Facilities for cleaning livestock trucks, with waste water able to be contained.

6.6 Capability and resources

- (1) Operators should maintain the following records to enable a rapid biosecurity response:
- a) visitors to and from site;
 - b) home contact details of workers at the site;
 - c) inventory of current product in storage;
 - d) encourage use of NAIT and other tracing by suppliers;
 - e) up-to-date inventory of disinfectants on site and disinfectants available at short notice from suppliers;
 - f) water supply, drainage and effluent storage and disposal capacity is documented.
 - g) plan of site showing:
 - i) pens for segregation of suspect livestock;
 - ii) truck washing area;
 - iii) defined areas (especially yards, slaughter floor and boning room) to allow for isolation of High Risk Processing Areas and prevent people from becoming contaminated; and
 - iv) identification of exit points to be closed and locked or controlled.

Table 4: Inventory of Disinfectants and Equipment

Inventory Item for Cleaning & Disinfection	Locations stored
Signage	
Emergency Tape	
Foot bath	
Buckets	
Apron	
Paper towels roll	
Calibrated measuring jug	
Spray sol bottle with trigger	
Safety glasses	
Disposable latex gloves box	
Household washing gloves pack	
Veterinary gloves long box	
Disposable overalls	
Rain jacket or smock	
Company locks and chains for securing gates	
Wheelie Bin or sealable rubbish bin	
Scrubbing brushes/brooms	
Water blaster	

Disinfectants on site	Amount	Location stored
Disinfectants available at short notice	Amount	Supplier

7 Infected place

7.1 Infected place requirements

- (1) This part of the RORP applies when an animal with suspicious clinical signs is detected or suspicious signs are noted during processing or post-mortem inspection. It will begin a chain of actions that may stop at any point depending on the assessment made at the time. The chain of action occurs sequentially through the following steps:
 - a) observing clinical signs, segregating suspect livestock and notifying MPI;
 - b) initial Investigating Veterinarian sent to investigate;
 - c) MPI Incursion Investigator sent from Wellington;
 - d) MPI declaring a Restricted Place over a suspect place; and
 - e) full biosecurity response declared on confirmation.
- (2) At various points, the operator should undertake particular actions around
 - a) livestock control
 - b) exit controls
 - c) cleaning and disinfection of potentially contaminated areas of the plant
 - d) control of waste/effluent
 - e) Control of product and stores (including tracing).

7.2 Reporting suspicious clinical signs

- (1) If any livestock or product is seen with suspicious clinical signs immediately segregate the suspect mob or product line, preferably in an area that is secure and where livestock can be restrained for examination. Contact the MPI VS veterinarian on-site. If the MPI VS veterinarian identifies livestock or product with suspicious clinical signs, they will immediately make the RORP Site Coordinator, member of the RORP team or supervisor aware of this.

5	Premises details (your name, address, contact numbers):
6	Name of premises VS veterinarian, VS verifier, or AsureQuality representative:
7	Animal Owner Details (name, address, contact details):
8	Phone MPI Emergency Hotline 0800 80 99 66

Table 6: MPI Incursion Investigator Instructions

<p>Person logging call and time:</p> <p>Name of MPI Incursion Investigator:</p> <p>Activities and other requirements from MPI: (this will include source of livestock, farm contact details, etc.)</p> <p>Likely time of arrival of Initial Investigating Veterinarian (IIV):</p>

If an IIV is sent by MPI:

- Notify Risk Organism Response Plan Team
- Keep suspect mob segregated in the yards
- Assist IIV in examining livestock, etc.
- Determine High Risk Processing Areas (where suspect livestock or product have been in contact)

Provide information on history of livestock mob (owner, transport, etc.)

7.3 Initial investigation

- (1) If a risk organism cannot be ruled out by the MPI Incursion Investigator an Initial Investigating Veterinarian (IIV) will be sent to the premises and if possible make a primary diagnosis.
- (2) At this point:
 - a) the Risk Organism Response Team will be notified;
 - b) suspect livestock or product should continue to be segregated;
 - c) provide assistance to the IIV in the investigation (such as taking restraining livestock for examination, etc.);
 - d) the RORP Site Coordinator will begin consideration of the High Risk Processing Areas (i.e. where suspect livestock or animal product has been);
 - e) provide information on the history of the suspect mob – especially, where has the livestock come from.
- (3) If the preliminary diagnosis of the Initial Investigating Veterinarian is “not negative” for a suspected risk organism, an MPI Incursion Investigator (II) from Wellington will be sent to the premises. MPI will seek to get the MPI Incursion Investigator on site as quickly as possible (generally by commercial airline). The II will immediately undertake an investigation at the site, including close inspection of livestock or product that bear clinical signs.
- (4) At this point:
 - a) Close and lock uncontrolled exits.
 - b) All livestock to be traced.
 - c) Movements of personnel around the plant to be minimised, especially from the yards and slaughter room and boning room.
 - d) Movement in and out of the High Risk Processing Areas to be kept to an absolute minimum and controlled.
 - e) Assist MPI Incursion Investigator with investigation, including taking samples.

7.4 Restricted place declared

- (1) If the II is unable to exclude vesicular disease (not negative) MPI may declare the site to be a Restricted Place. A Restricted Place Notice under the Biosecurity Act will be issued. The MPI Incursion Investigator will send samples urgently to the MPI laboratory in Wellington for testing.
- (2) MPI will appoint a Restricted Place manager. The RP manager is responsible for the overall control of all the required activities in the Restricted Place.
- (3) At this point:
 - a) The RORP Site Coordinator will activate a full response.
 - b) Comply with the Restricted Place Notice.
 - c) Continue processing livestock in yards.
 - d) Notify all personnel.
 - e) Notify Company HQ.

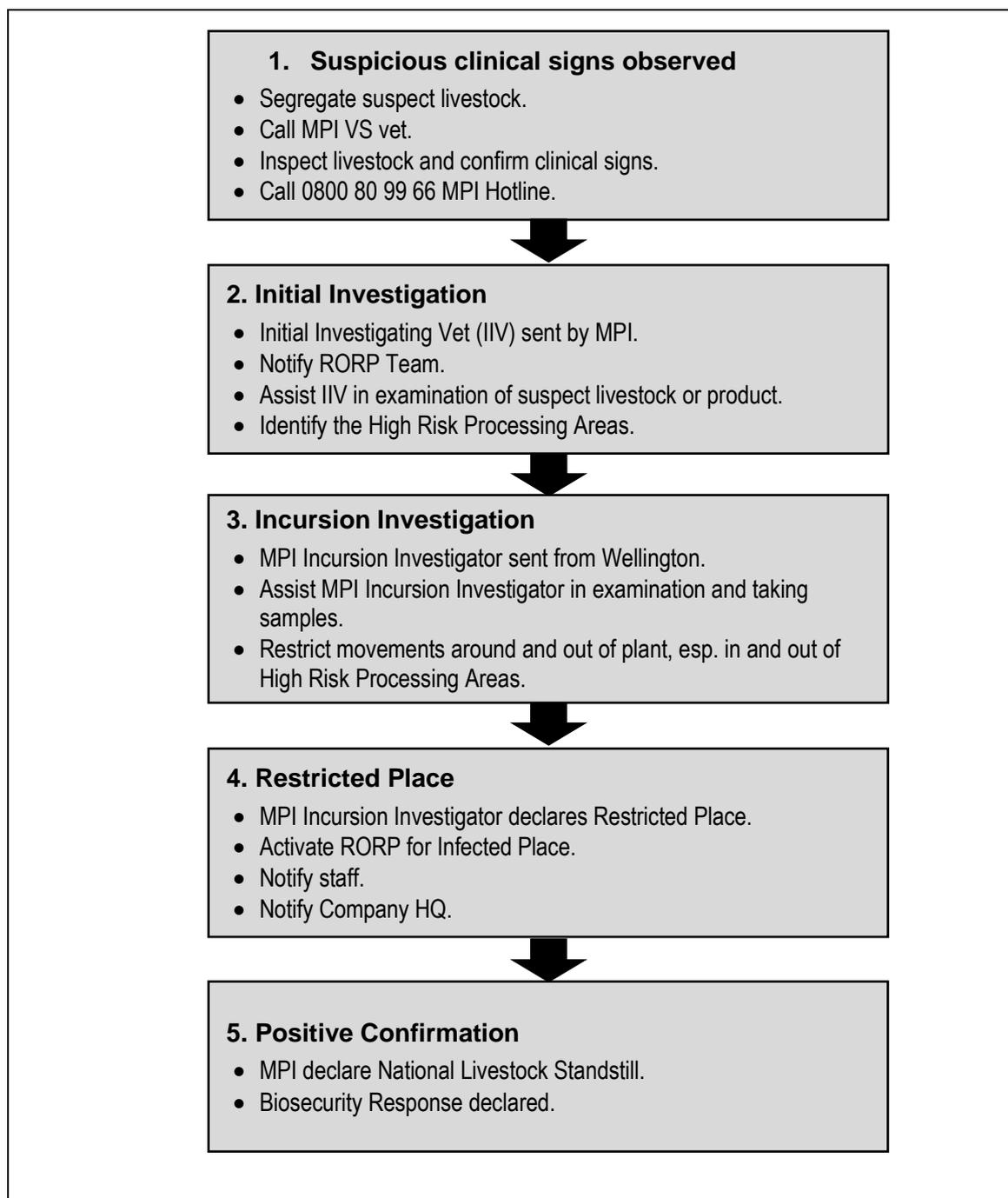
- (4) It is important to note that at this stage of the investigation, the disease is not yet confirmed.
- (5) If you are issued a Restricted Place Notice under the Biosecurity Act it is a legal requirement that all requests set out in the Notice are followed. A Restricted Place Notice sets out a number of requirements relating to stopping movement of suspicious risk goods and animals aimed at preventing spread of the Virus. Only an Authorised Person or Inspector (under the Biosecurity Act) can give specific permissions for removal. Failure to comply with the terms of the Notice is an offence under the Biosecurity Act.

Table 7: Notify Personnel in Event of Restricted Place Being Declared by MPI

- MPI have declared the plant a Restricted Place under the Biosecurity Act.
- There is an MPI investigation but nothing is confirmed at this point.
- Processing will continue.
- Follow all instructions from MPI personnel.
- Exit controls have been put in place. All personnel may only leave the site at controlled exits.
- Movements around the plant should be kept to a minimum.
- Personnel who have been in direct contact with suspect livestock or animal product should wash or shower before they leave the site.
- Personnel should ensure that suspect product is kept separate from other product, and that suspect livestock are kept separate.
- Leave normally. No animal product or equipment may leave the site.
- If you leave the site, avoid going to farms and/or contact with livestock.

7.5 Biosecurity response

- (1) Lastly, if a positive result is received from the MPI laboratory, MPI will declare a biosecurity response. There will be a public announcement by MPI. The Meat Industry Association will contact each company directly. A National Livestock Standstill will be put into immediate effect. A Biosecurity Emergency (in which MPI are given sweeping powers) may also be declared if the emergency is significant.
- (2) During a suspected risk organism investigation operators may be advised of initial disease containment instructions. Operators should immediately implement any containment instructions or other instructions given by the MPI Incursion Investigator, the Initial Investigating Veterinarian, or the premises VS verifier.
- (3) Communications with the public and media should be closely controlled. If a rumour is spread that a plant is under investigation, there could be an unpredictable response in markets. If approached by media during an investigation, refer all media calls to the MPI media communications line at 029 894 0328. MPI should be the only authoritative spokesperson during an investigation.

Table 8: Biosecurity Investigation Process

7.6 Livestock control

7.6.1 Purpose

- (1) The purpose of livestock control is to increase surveillance of clinical signs of suspected exotic disease, and segregate suspect livestock.

7.6.2 Responsibilities of the Livestock Control Leader

- (1) The Livestock Control Leader should do the following:
 - a) mark suspect animals with paint or other markers;

- b) segregate and secure the suspect livestock and their mob. Segregated livestock should ideally be kept in pens with separate drains, and as far away as possible from other livestock at the plant and away from the boundary fences if possible. There should also be some way of restraining livestock for inspection. However, this should be balanced against minimising movement of the suspect livestock within the plant and potentially spreading the infection;
- c) make available any livestock for inspection by IIV or MPI Incursion Investigator, and if required take specimens for laboratory diagnosis;
- d) bring in livestock away from boundary fences;
- e) ensure the truck that brought in the suspect mob is kept in a separate area, and other trucks have mud/dirt washed from them before leaving. If truck has already left, get description of truck (name of livestock transport company truck was from, etc.);
- f) talk to livestock drivers, explain situation, and request their cooperation;
- g) minimise livestock washing and hosing to minimize waste water production;
- h) count the number of sheep, cattle, bobby calves, goats, pigs and deer on site;
- i) ensure that all livestock in the yards and arriving livestock have increased surveillance;
- j) ensure ASDs are meticulously processed and maintained;
- k) normal slaughter operations continue of non-suspect livestock until all yarded stock is slaughtered;
- l) if livestock destroyed, ensure numbers of livestock destroyed and details of owner are recorded for future compensation.

7.6.3 Livestock Control Personnel

- (1) Livestock Control Personnel should:
 - a) keep all movement from yards to an absolute minimum;
 - b) check all animals in yards for clinical signs;
 - c) wear impervious clothing and boots when moving, examining and feeding suspect livestock and when facilitating cleaning and disinfection;
 - d) discard clothing into plastic bags and ensure boots are cleaned and disinfected after contact with suspect livestock;
 - e) if Restricted Place is declared, then the Yards will be a High Risk Processing Area. Personnel should shower, etc. before leaving the yards (see Exit Controls);
 - f) warn staff to avoid farms and contact with livestock off-site if possible.

7.6.4 Segregation of livestock

- (1) The livestock with clinical signs should be marked (such as with paint or a tag) so as to identify them within the mob.
- (2) The suspect mob should be segregated in a separate pen, considering:
 - a) separate drainage
 - b) distance from other livestock - separated from other pens holding livestock by at least one empty pen
 - c) minimize movement within plant
- (3) Wait for the IIV or Incursion Investigator. If negative, process normally. If not-negative, wait for MPI instructions. Suspect livestock may need to be destroyed in the yards at the instruction of MPI.

7.6.5 Animal welfare

- (1) Feeding in lairage – animals that are retained on the premises for prolonged period of time should be provided with enough feed and water, as per Animal Welfare (Slaughter) Code of Welfare.
- (2) Animals that suffer unnecessary pain and distress should be promptly euthanized.
- (3) Dead and condemned animals for animal welfare should not be taken off the premises except as part of MPI controlled carcass disposal.

7.6.6 Livestock trucks

- (1) The livestock truck that brought in the suspect mob should be parked in a segregated area. It is important to clearly explain the reasons for this to the driver. Until the MPI Incursion Investigator is on site, the driver and his vehicle are free to leave, but their cooperation is sought.
- (2) Keep Exit Control Leader informed of status of all livestock trucks and assist in washing of livestock trucks and cleaning and disinfection as necessary.
- (3) If a biosecurity response is declared by MPI, then MPI will direct the driver to wash/clean (the same as other personnel in a High Risk Processing Area). This may mean the driver will need to have a change of clothes provided.

Table 9: Livestock Controls

<p>Who is Responsible: Livestock Control Leader</p> <p>Equipment and Supplies Needed:</p> <ul style="list-style-type: none"> • Paint for marking suspect livestock • Rubbish bags • Boots • Disposable overalls or waterproof coats/over trousers 	
Activity	Time Done
Mark suspect livestock with paint or other marker	
Segregate suspect mob in separate pen, considering: <ul style="list-style-type: none"> • Separate drainage from pen • Maximise distance from other livestock • Minimise movements 	
Bring in livestock from boundary fences	
Livestock cleaning and hosing of pens minimised	
Increased surveillance of livestock on trucks and in yards	
Ensure ASDs are processed and maintained	
Explain situation to livestock drivers and request their cooperation	
Keep Exit Control Leader informed on status of livestock trucks on site	

7.7 Exit control

7.7.1 Heading

- (1) The purpose of exit control is to prevent risk goods or conveyors (for example, infected blood or hair which may be on someone's clothes or hair) from exiting the site.

7.7.2 Responsibilities of Exit Control Leader

- (1) The Exit Control Leader should do the following:
 - a) Identify the High Risk Processing Areas with the RORP Site Coordinator.
 - b) Close and secure exit points that are not controlled. These should be locked and notices placed on them until all clear given.
 - c) Other exits are to have controls.

- d) Ensure that personnel leaving High Risk Processing Areas have washed/showered.
 - e) Liaise with Livestock/Ante-Mortem Leader on status of livestock trucks on site.
 - f) Ensure that livestock trucks and farm vehicles have been cleaned and disinfected.
 - g) Have a personnel member contact external contractors, couriers and suppliers to notify them that the plant is now closed.
- (2) Controlled Exits should be manned immediately after instruction for containment is given. Their task is to:
- a) ensure that personnel from High Risk Processing Areas have been appropriately washed;
 - b) ensure that livestock trucks have been cleaned. Keep a register of all livestock trucks exiting, including if possible driver contact details and their destination (MPI may need this for tracking stock movements);
 - c) ask all personnel leaving to place risk goods (i.e. any animal product, or equipment that have come into contact with animal product) in the amnesty bin;
 - d) direct incoming biosecurity response personnel to the appropriate place at the site.
- (3) Appropriate signage should be placed at all gates (as per 'RORP 13: Biosecurity Alert Sign'). At each controlled exit place an amnesty bin of a sealable rubbish bin or wheelie bin for disposal of any risk goods.

7.7.3 Risk categorisation of personnel

- (1) Personnel need to be categorised to determine level of cleaning and disinfection required prior to exiting the premises (or moving between areas of different risks within the premises). This depends on whether the personnel have been in:
- a) direct contact with suspect livestock (i.e. in the yards or slaughter floor). Live infected animals shed disease, and the personnel who have been in contact may be carrying the disease; and
 - b) direct contact with meat or raw animal products (such as hides and skins) from suspect livestock. Personnel who have come into direct contact may have infectious material on them (blood, etc.).
- (2) Personnel who meet these two criteria are from a High Risk Processing Area. Other personnel who have not come into contact with either suspect livestock or suspect animal product are from a Low Risk Processing Area.

7.7.4 High risk processing area

- (1) The following are high risk processing area:
- a) Livestock Yards; and
 - b) Slaughter Floor, Boning Room, hides and skins, or any room which may have come into direct contact with product from a suspect infected carcass.
- (2) Personnel who have been exposed to suspect animal product (such as blood or hair) may have infectious material on them. Personnel who have been in a High Risk Processing Area should not leave the area until they have thoroughly washed or showered (depending on the instructions of the MPI controller).
- (3) The washing/showering depends on the extent of exposure and how much protective PPE is worn and can be safely removed.
- (4) If a worker is wearing full PPE (washable boots, plastic apron, gloves, hairnet, glasses, overalls, etc.) they should remove all PPE (hair nets, aprons, gloves, glasses, etc.) and clothing before leaving Area. The following should happen:
- a) boots, etc. should be thoroughly scrubbed and washed in disinfectant solution;
 - b) disposable PPE (plastic aprons, gloves) should be put into a sealable plastic bag;
 - c) clothes should be put into sealable plastic bags for disinfection and washing; and
 - d) personnel should thoroughly wash any exposed surfaces (arms/faces) and hands (which have handled potentially infected PPE) or shower.

- (5) Other personnel should remove and dispose of or disinfect/wash all PPE (gloves, glasses, etc.) and clothing before leaving Area. They should shower as laid out on the sheet for 'RORP 10: Showering of High Risk Personnel'.
- (6) Their hands should be marked or stamped to show that they have washed/showered/cleaned before leaving the High Risk Processing Area.

7.7.5 Low risk processing area

- (1) The following are low risk:
 - a) Personnel with no contact with livestock (offices, workshops, stores).
 - b) Personnel handling packaged product.
- (2) Personnel who have only been in Low Risk Processing Areas may leave normally. Unless instructed by MPI, they may not enter a High Risk Processing Area.

7.7.6 Control of personnel

- (1) At risk personnel should thoroughly wash or shower before exiting the site.
- (2) All personnel should exit through controlled exits.
- (3) Personnel should ideally use defined routes and allocated amenities to avoid cross contamination.
- (4) Personnel should avoid going to farms.

Table 10: Showering High Risk Personnel

Who is Responsible:

Exit Control Leader

Equipment and Supplies Needed:

- Soap, shampoo and hot water at usual work shower locations
- Clean towels
- Disinfectant – 1% Virkon S or 0.2% Citric Acid
- Plastic rubbish bags
- Stamp or marker for hands after showering

Guidelines:

- After completion of work, high risk personnel should wash boots as normal and remove gloves/etc., take a complete shower, including hair, for a full three minutes using soap and shampoo.
- Street clothing should be kept separate from protective and/or work clothing.
- There should be no contact with clean street clothing until full showering procedures are complete.
- All potentially contaminated clothing should be collected in plastic rubbish bags for laundering prior to showering occurring.
- All potentially contaminated clothing should be stored physically separated until final disposition.
- A container of Virkon or other appropriate non-corrosive disinfectant should be made available to disinfect eye glasses and any personnel jewelry along with forceps for their removal.

Actions:

- Wash boots and remove equipment as normal.
- Remove all protective clothing and place in plastic bag for laundering
- Proceed to shower and wash thoroughly, for at least 3 minutes. Ensure full cleaning of exposed parts of body:
 - Hands and under fingernails
 - Face and neck
 - Shampoo hair

- Disinfect shower exit and place a clean bathmat on floor
- Put on clean clothing and footwear
- Have back of hand stamped or marked by supervisor to show have been washed/showered
- Proceed to clean area or to exit via clean areas

Table 11: Gate Control**Who is Responsible:**

Exit Control Leader

Equipment and Supplies Needed:

- Signage (stating Biosecurity Emergency – Plant Closed)
- Wheelie bin or sealable rubbish bin (as amnesty bin)
- Log book and pen

Guidelines:

- Secure all uncontrolled gates and exits
- All exits are secured and signs put up
- Any meat or equipment should be disposed of in amnesty bin
- High risk personnel should show stamp on back of hand to show they have washed/showered.
- Keep register of all livestock trucks exiting, noting down name of driver, contact details and destination.
- Vehicles for biosecurity response may enter, but other vehicles may not enter.

Vehicles	Treatment
Livestock truck that carried suspect livestock	Full cleaning and disinfection
Livestock truck from same farm as suspect mob	Full cleaning and disinfection
Other livestock trucks	Wash to remove all mud/dirt
Vehicles going to or from farms	Wash to remove all mud/dirt
All other vehicles	Leave normally – avoid going to farms.

7.7.7 Control of vehicles

- (1) Vehicle movements should be kept to a minimum.
- (2) The livestock truck that carried the suspect livestock, and any other vehicles from the same farm as the suspect mob, are High Risk Vehicles. Before exiting those vehicles should be cleaned and disinfected (as laid out on the sheet for 'RORP 12: Cleaning and Disinfection for High Risk Vehicle').
- (3) Other livestock trucks or vehicles that have been on farms or are going to farms should be thoroughly washed using normal procedures to prevent mud/dirt leaving the site, and sent back to their home/depot. The vehicles should avoid going onto farms.
- (4) All other vehicles leave normally. If possible, avoid going to farms.

Table 12: Cleaning and Disinfection for High Risk Vehicle**Who is Responsible:**

Exit Control Leader

Equipment and Supplies Needed:

- Approved disinfectant in handheld spray bottle and a soak bucket
- Wash cloths

- Scrubbing brushes
- Sealable plastic bags
- Rubbish bags
- Protective clothing / goggles / gloves / knee pads
- Vacuum cleaner
- Window cleaner and paper towels
- Water blaster with short wand (lance) and foaming unit (if available)
- Backpack type sprayer unit
- Recommended Disinfectants:
 - 1% Virkon S
 - 0.2% citric acid
 - GeoSIL DS (required at 3%) (for exterior)
 - Pour n' Go RV & Marine (for exterior)
 - 10% washing soda (for exterior)
 - 4% Sodium carbonate – anhydrous (for exterior)

Guidelines:*Interior of risk vehicle*

- Lightly spray the interior of the vehicle, shut the doors, windows, and leave for 10 minutes.
- Seat covers, carpet mats, etc. soak in disinfectant for 10 minutes, place in plastic bags and seal for owner to take home for laundering.
- Return to the vehicle, scrub and clean the foot pedals, vacuum the floors
- Wipe over the entire cab with disinfectant solution, including doors, ceiling, dashboard, steering wheel, handbrake, gear-stick, seats, and pedals.
- Re-spray the interior surfaces of the vehicle with disinfectant. Close all the windows and doors leave for 10 minutes.
- Clean inside of windscreen with window cleaner to remove any overspray and ensure visibility of driver.
- Check with disinfection team leader for clearance.

Exterior of risk vehicles

- Ensure any effluent tank outlets on trucks are closed.
- If vehicle has dual wheels, clean the wheels when they have been removed by the specialist wheel remover. This operation is to be done on a flat surface.
- Using the 500mm lance, fitted with a foaming unit if available, begin applying disinfectant by foam or spray to the wheels, wheel arches, dog boxes, undercarriage, sides of crates, trailer, and body work (working from bottom to top of the vehicle) leave for 10 minutes.
- Inside the crate or deck of truck/trailer, using the short wand fitted with a foaming unit (If available), start applying foam or spray to the front left corner closest to the cab. Apply the foam or spray ensuring complete coverage of all surfaces. Leave for 10 minutes.
- Using a high pressure hose, wash the exterior of the vehicle ensuring all dirt and manure is washed from the vehicle. Use the water blaster to remove stubborn material.
- Drain the effluent tanks (if fitted) and flush them out as much as possible using the high pressure hose. Add 1 litre of concentrated disinfectant. Close effluent tank.
- Spray, with backpack sprayer, the exterior of the vehicle with approved disinfectant working from bottom to top to re-disinfect all external surfaces, leave for 10 minutes.
- Check with disinfection team leader for clearance.

7.8 Cleaning and disinfection

7.8.1 Purpose

- (1) The purpose of cleaning and disinfection is to destroy all risk organisms at the site in a way that contributes to recognition of disease-free status.

7.8.2 Incident Controller

- (1) If a plant is declared a Restricted Place, MPI will appoint an Incident Controller. The Incident Controller is responsible for the overall control of all the required activities, including disinfection and other organism management activities.
- (2) The Cleaning and Disinfection Leader should assist with provision of information, equipment and personnel, and assist with the cleaning and disinfection work under the direction of the MPI Incident Controller.
- (3) The Incident Controller will develop a **Disinfection Action Plan (DAP)** for a site, which will include the key disinfection targets, necessary cleaning steps, disinfectants to be used, application methods, event timelines, and key measures for health and safety of operators.
- (4) When a DAP is required, the C&D Leader should assist with:
 - a) site plans, including information such as the location of taps, electricity poles and lines, underground cables, phone lines, meter, etc.
 - b) identify the High Risk Processing Areas at the site
 - c) identify any potential hazardous situations for operations
 - d) identify the location of drainage and water run off
 - e) provide what resources can be provided (i.e. hoses, water blasters, etc.)
 - f) identify and document any Health and Safety risks to workers (i.e. risk of falls, hot water, etc.), and how these will be controlled
- (5) The MPI Incident Controller will direct operations. A Guideline on cleaning and disinfection procedures is attached (see below).

7.8.3 Disinfection

- (1) Effective disinfectants should be used. Soaps and detergents have little effect in killing many viruses such as FMD, but with discharge into controlled waste water can prevent risk of spreading virus.
- (2) Cleaning before applying disinfectant is critical for effective disinfection. When cleaning and disinfecting, work from cleanest areas to the dirtiest, and from the highest levels to the lowest.
- (3) Disinfection based on drying, warm temperature and sunlight is encouraged whenever possible. Leaving equipment or a vehicle quarantined and in sunlight for at least a week is likely to disinfect naturally.

7.8.4 Health and safety is paramount

- (1) The response to a biosecurity threat does not override the operator's responsibility for the health and safety of all workers at the site. Health and safety risks during a response are heightened because:
- (2) People coming onto the plant who are unfamiliar with the site layout and risks. It is critical that those people are informed of the health and safety risks and controls.
- (3) Large quantities of disinfectants will be used. These should be used safely, and company chemical use procedures remain in place.
- (4) Existing risks, such as risks of falls from heights such as catwalks in stockyards, are increased during cleaning or unusual activities. There should be heightened awareness of health and safety risks in a response, and all workers need to be briefed on health and safety before commencing cleaning and disinfection.

Table 13: Cleaning and Disinfection Guidelines**Who is Responsible:**

Cleaning and Disinfection Leader

Equipment and Supplies Needed:

- Approved disinfectant in handheld spray bottle and a soak bucket
- Water blaster with short wand and foaming unit (if available)
- Backpack type sprayer unit (if available)
- Recommended Disinfectants:
 - 1% Virkon S
 - 0.2% citric acid
 - 10% washing soda
 - 4% Sodium carbonate – anhydrous

Guidelines:*Assist in Site Disinfection Action Plan*

- Provide MPI Incident Controller site plan, including information such as the location of taps, electricity poles and lines, underground cables, etc.
- Identify the High Risk Processing Areas at the site.
- Identify the location of drainage and water runoff.
- Provide what resources can be provided (i.e. hoses, water blasters, etc.).
- Identify any Health and Safety risks to the Incident Controller.
- Health and safety – **The health and safety of workers is paramount!**
- Identify any health and safety risks to workers (such as risk of falls, hot water, chemical use, etc.) and how these risks will be controlled.
- Chemical disinfectants must be handled in accordance with the plant health and safety guidelines.
- Personnel mixing or applying disinfectants must wear boots, overalls, goggles and head covering for protection. Always wear a protective face guard when mixing. To avoid the risk of inhalation, do not use a mist sprayer.
- Never mix different disinfectants.
- First Aid boxes should be available where hazardous chemicals are being used.
- Before commencing operations, all personnel must be briefed on health and safety procedures.

Disinfecting stockyards

- Wash down with hoses to remove all waste.
- Ensure that waste water is contained.
- Foam or spray ground area within the yards, all fences, pens and support timbers. Work from highest to lowest.
- Ensure all sides of gates and timber are foamed or sprayed – pay particular attention to high contact areas.
- Ensure disinfectant remains on surfaces for 10 minutes.
- Give the area a rinse.
- If there are concerns that area has not been completely disinfected, then re-disinfect with spray or foam.

Disinfecting interior High Risk Processing Areas (slaughter floor, boning room, etc.)

- Remove all waste.
- Note where waste water drains to.
- Undertake normal cleaning procedures.
- Add disinfectant to water, or spray/foam for 10 minutes. Scrub all surfaces.
- Give the room a rinse – thoroughly hose down all plant and equipment.
- If there are concerns that room has not been completely disinfected, then re-disinfect.

Laundering contaminated clothes

- Clothes should be sponged or washed down to remove material, soaked for 10 minutes in disinfectant (1% Virkon or 0.2% citric acid) and washed normally.
- Boots, aprons, scabbards, steels, hooks, and other equipment should be washed down and scrubbed with disinfectant solution, soaked for 10 minutes in disinfectant, and washed with hot water (82-degrees).

7.9 Control of effluent/waste

- (1) The purpose of effluent and waste control is to ensure that no potentially infected waste or effluent leaves the site or does so in a controlled way for treatment. Movement of animal product waste and effluent off site is considered a significant pathway for spread of the risk organism; therefore, these operations require careful planning and a high degree of control.
- (2) As soon as suspect disease is notified, restrict washing of livestock to minimise water waste.
- (3) Untreated effluent and waste should not be allowed to contaminate storm water drains or the environment.
- (4) Waste and effluent should not be moved off site and should be held until their potential risk can be assessed. These products should be moved in leak proof containers. All movements of these types of product will be subject to Movement Permit requirements and should comply with the conditions of these permits. Any waste or effluent that has already departed the site should be notified to the MPI Incident Controller.
- (5) Waste water can continue to go to Municipal Wastewater Treatment.
- (6) Other waste water and effluent should be treated.

Table 14: Waste Water and Affluent Treatment

Type	Treatment Required
Left in tanks	At least three weeks
Heat	100°C for 1 hour or an equivalent heat effect (ensure all materials reach the required temperature). 115°C in the centre of all solid material for 30 min or an equivalent heat effect, e.g., in rendering. If dry waste, heat at 50°C for 48 hours.
Chemical	Ensure pH is less than 5.0 or more than 11.0. Thorough mixing of the materials should be carried out to ensure all viruses are exposed to the required pH level for a minimum of 30 minutes. After treatment the mixture should be neutralized and the pH should be checked before the effluent is released.

- (7) Rubbish should be placed into plastic bags and sent direct to landfill.
- (8) Vermin control should be heightened during an outbreak.

7.10 Product and stores control

7.10.1 Purpose

- (1) The purpose of product and stores control is to (a) ensure that no potentially infected animal product leaves the site or does so in a controlled way for treatment, and (b) tracing can be done of product to

ensure that potentially infected product can be rapidly found, and (c) identification of the source of the animals.

7.10.2 Responsibilities of the Product and Stores Control Leader

- (1) In the event of an MPI Incursion Investigator being sent, the Product and Stores Control Leader should commence tracing of product, beginning with any product from the farm that is being investigated.
- (2) In the event of a Restricted Place Notice, MPI certification of product for export should cease. The Product and Stores Control Leader should:
 - a) ensure that no animal product may leave the site unless given MPI clearance;
 - b) carry out traceability procedures to trace all product which has left the site, and product still on site and preservation status;
 - c) all product, whether unaffected or at risk, is to be secured and placed under inventory control.

7.10.3 Unaffected product

- (1) The site will receive notification from MPI of the Pre-Outbreak date and time (usually 3 weeks before confirmation). Product from before this time will be unaffected product. Unaffected product may be able to leave the site once the Restricted Place Notice has been lifted. As such, the integrity of unaffected product should be preserved.

7.10.4 At risk product

- (1) Affected or at risk product has been processed within 3 weeks of the date of confirmation. It should be isolated by distance, separate room, or documented method of identification. It should not be allowed off-site without MPI clearance. Identify and segregate any product which may come from stock from an infected or suspect farm.

Table 15: Disinfectants for FMD Virus

Adapted from FAO manual: <http://www.fao.org/docrep/004/y0660e/Y0660E03.htm>

Disinfectant group	Form ¹	Strength ²		Contact time ⁴	Applications and precautions
		Usual dilution	Final ³		
Oxidizing agents:					
Sodium hypochlorite NaOCl	Conc. liquid (10–12% available chlorine)	1:5	2–3% available chlorine (30 000 ppm)	10–30 min	Effective for most applications except when in the presence of organic material. Less stable in warm, sunny conditions above 15°C.
Calcium hypochlorite Ca(OCl) ₂	Solid	30 g/litre		10–30 min	Toxic for eyes and skin. Strong bleach. Inhibited by high concentrations of organic matter. Corrosive for many metals.
Virkon® (Potassium peroxymonosulfate, Sodium dodecyl benzene-sulfonate, sulphamic acid)	Powder	20 g/litre	2–3% available chlorine (30 000)	10 min	Excellent disinfectant, active against all virus families.

Disinfectant group	Form ¹	Strength ²		Contact time ⁴	Applications and precautions
		Usual dilution	Final ³		
			ppm) 2% (w/v ⁵)		
Alkalis:					
Sodium hydroxide	Pellets	20 g/litre	2% (w/v)	10 min	Caustic for eyes and skin. Do not use in the presence of aluminium and derived alloys.
Sodium carbonate anhydrous (Na ₂ CO ₃)	Powder	40 g/litre	4% (w/v)	10 min	Recommended for use in the presence of high concentrations of organic material.
washing soda (Na ₂ CO ₃ .10H ₂ O)	Crystals	100 g/litre	10% (w/v)	30 min	
Acids:					
Hydrochloric acid	Conc. acid (10 Molar)	1:50	2% (w/v)	10 min	<u>Used only when better disinfectants not available.</u> Toxic for eyes, skin and respiratory passages. Corrosive for many metals and concrete.
Citric acid	Powder	2 g/litre	0.2% (w/v)	30 min	Safe for clothes and body decontamination. Especially useful for FMD virus decontamination.
Acetic acid (2%)	95% liquid	1:30-45	2-5% (v/v)	10 min	Water purification and plumbing disinfection

¹ Usual form supplied.

² Recommended working strength.

³ Final concentration.

⁴ Required contact time for inactivation of disease agents.

⁵ w/v = weight/volume (e.g. 2g/100ml)

8 High risk area

8.1 Area requirements

- (1) This part of the RORP applies when the RORP Site Coordinator is notified that there is a Biosecurity Response and that a National Livestock Standstill is in place. MPI will cease export certification and no livestock will be permitted to leave farms or sale yards, so most plants will cease processing once the yards have been emptied. As the location of the disease is confirmed, the National Livestock Standstill will be lifted from disease-free regions, which will allow processing to resume.
- (2) On being told by MPI of a National Livestock Standstill, the RORP Site Coordinator should notify personnel at the plant.

Table 16: Notify Personnel in Event of Biosecurity Response Being Declared by MPI

- MPI have declared a Biosecurity Response under the Biosecurity Act.
- A National Livestock Standstill has been declared by MPI. No livestock will be permitted to leave farms or sale yards, and livestock already on the roads is directed to continue directly to the destination.
- There will be heightened surveillance of livestock for clinical signs.
- Processing will continue until the yards have been emptied.
- Leave normally. No animal product or equipment may leave the site. Ensure your supervisor has your phone number, so you can be contacted on progress of the response and when processing is resumed.
- If you leave the site, avoid going to farms and/or contact with livestock.

8.2 National livestock standstill

- (1) MPI will make a public statement when there is a Response, and a National Livestock Standstill (Controlled Area) will be declared.
- (2) No new movements of susceptible animals can begin.
- (3) Livestock trucks already on the road proceed to destination. However, if origin is closer and origin will take the animals, proceed to origin. Proceed to the intended plant by a direct route without stopping and picking up or dropping off livestock.
- (4) All susceptible animal movements should be completed using a direct route without uploading or offloading livestock.
- (5) Vehicles used for transport of FMD susceptible animals should remain at the destination until disinfected under MPI direction.
- (6) FMD susceptible animals destined for slaughter should be slaughtered within 24 hours where possible.
- (7) Any animal(s) should be made available for inspection and/or the collection of samples when directed by an Inspector or authorised person appointed under the Biosecurity Act 1993.
- (8) After about 3 weeks MPI will have identified which areas are suspect or infected, and will begin to lift the Livestock Standstill from areas that are confirmed to be free of the disease.

8.3 Livestock control

8.3.1 Purpose

- (1) The purpose of livestock control is to ensure heightened surveillance and to that possible spread of infection to or from the site is minimised.

8.3.2 Responsibilities of the Livestock Control Leader

- (1) The Livestock Control Leader should do the following:
 - a) increase surveillance of livestock for clinical signs;
 - b) ensure that any livestock from a High Risk Area or that has travelled through a High Risk Area has appropriate permitting;
 - c) segregate and secure the suspect livestock and their mob. Segregated livestock should ideally be kept in pens with separate drains, and as far away as possible from other livestock at the plant and away from the boundary fences if possible. There should also be some way of restraining livestock for inspection. However, this should be balanced against minimising movement of the suspect livestock within the plant and potentially spreading the infection;
 - d) make available any livestock for inspection by MPI, and if required take specimens for laboratory diagnosis;
 - e) avoid keeping livestock near boundary fences;

- f) ensure the trucks have mud/dirt washed from them before leaving;
- g) ensure that all livestock in the yards and arriving livestock have increased surveillance;
- h) ensure ASDs are meticulously processed and maintained;
- i) normal slaughter operations continue of non-suspect livestock until all yarded stock is slaughtered.

8.4 Movement control permitting

- (1) Once the National Livestock standstill is lifted, products may be processed as normal (though overseas requirements and restrictions remain).
- (2) A High Risk Area is within 50 kilometres (or other area determined by MPI) of an infected place. As such, the area is at higher risk of being infected.
- (3) A movement permit is required to move risk goods/conveyors through and out of High Risk Areas. As the plant is in the High Risk Area, in effect all movements of livestock into the plant and all movements of product from the plant will require a permit.
- (4) Contact MPI at 0800 809 966 for contacting the Response Movement Control Manager.
- (5) Risk goods and conveyors are:
 - a) susceptible livestock, carcasses or germplasm (genetic material);
 - b) any non-susceptible animal that may have been in contact with any susceptible animal;
 - c) meat, carcasses, blood, bones and velvet;
 - d) wool, hides, skins, bristles, trophies;
 - e) waste, manure, faeces, urine, effluent or rejected matter;
 - f) any other products, or by-products or material derived from susceptible animals; or
 - g) vehicles or transport containers used to transport susceptible animals, or that may have been in contact with susceptible animal, or used to transport products or by-products.
- (6) The application should state:
 - a) applicant name, address and contact details;
 - b) details of vehicle to be used (if known) including registration number, make, etc;
 - c) transport Company details (name, contact);
 - d) description of what is to be moved, including item, quantity, weight, volume, etc;
 - e) movement details – location of origin and destination, and routes to be followed;
 - f) reason for why movement is necessary.
- (7) The permit, if granted, will provide directions to be followed in the movement from or through the High Risk Area.
- (8) All relevant personnel dealing with the movement should be familiar with the permit and conditions contained in the permit.

8.5 Tracing and recall

8.5.1 Purpose

- (1) The purpose of product and stores control is to (a) ensure that no potentially infected animal product leaves the site or does so in a controlled way for treatment, and (b) tracing can be done of product to ensure that potentially infected product can be rapidly found, and (c) identification of the source of the animals.
- (2) In the event of a Biosecurity Response being declared, MPI certification of product for export should cease. Export certification may commence once MPI have determined locality of the disease.

8.5.2 Responsibilities of the Product and Stores Control Leader

- (1) The Product and Stores Control Leader should:
 - a) carry out traceability procedures to trace all product which has left the site, and product still on site and preservation status;
 - b) all product, whether unaffected or at risk, is to be secured and placed under inventory control.

8.5.3 Unaffected product

- (1) The site will receive notification from MPI of the Pre-Outbreak date and time (usually 3 weeks before confirmation). Product from before this time will be unaffected product. Unaffected product may be able to leave the site once the Restricted Place Notice has been lifted. As such, the integrity of unaffected product should be preserved.

8.5.4 At risk product

- (1) Affected or at risk product has been processed within 3 weeks of the date of confirmation. It should be isolated by distance, separate room, or documented method of identification. It should not be allowed off-site without MPI clearance. Identify and segregate any product which may come from stock from an infected or suspect farm.

9 At risk area

9.1 Area requirements

- (1) This part of the RORP applies when the RORP Site Coordinator is notified that there is a Biosecurity Response and that a National Livestock Standstill is in place. MPI will cease export certification and no livestock will be permitted to leave farms or sale yards, so most plants will cease processing once the yards have been emptied. As the location of the disease is confirmed, the National Livestock Standstill will be lifted from disease-free regions, which will allow processing to resume.
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 - d) make available any livestock for inspection by MPI, and if required take specimens for laboratory diagnosis;
 - e) avoid keeping livestock near boundary fences;
 - f) ensure the trucks have mud/dirt washed from them before leaving;
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 - h) ensure ASDs are meticulously processed and maintained;
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- (3) Risk goods and conveyors are:
 - a) susceptible livestock, carcasses or germplasm (genetic material);
 - b) any non-susceptible animal that may have been in contact with any susceptible animal;
 - c) meat, carcasses, blood, bones and velvet;
 - d) wool, hides, skins, bristles, trophies;
 - e) waste, manure, faeces, urine, effluent or rejected matter;
 - f) any other products, or by-products or material derived from susceptible animals;

- g) vehicles or transport containers used to transport susceptible animals, or that may have been in contact with susceptible animal, or used to transport products or by-products.
- (4) The application should state:
- a) applicant name, address and contact details;
 - b) details of vehicle to be used (if known) including registration number, make, etc;
 - c) transport Company details (name, contact);
 - d) description of what is to be moved, including item, quantity, weight, volume, etc;
 - e) movement details – location of origin and destination, and routes to be followed;
 - f) reason for why movement is necessary.
- (5) The permit, if granted, will provide directions to be followed in the movement from or through the High Risk Area.
- (6) All relevant personnel dealing with the movement should be familiar with the permit and conditions contained in the permit.

9.5 Tracing and recall

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- (1) The purpose of product and stores control is to (a) ensure that no potentially infected animal product leaves the site or does so in a controlled way for treatment, and (b) tracing can be done of product to ensure that potentially infected product can be rapidly found, and (c) identification of the source of the animals.
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- (1) The site will receive notification from MPI of the Pre-Outbreak date and time (usually 3 weeks before confirmation). Product from before this time will be unaffected product. Unaffected product may be able to leave the site once the Restricted Place Notice has been lifted. As such, the integrity of unaffected product should be preserved.

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- (1) Affected or at risk product has been processed within 3 weeks of the date of confirmation. It should be isolated by distance, separate room, or documented method of identification. It should not be allowed off-site without MPI clearance. Identify and segregate any product which may come from stock from an infected or suspect farm.

Appendix 1: Risk organism response plan team

Table 1: Risk Organism Response Plan Team

Role	Person	Job Title	Contact (Inc. after hours)
RORP Site Coordinator			
Back up RORP Site Coordinator			
Exit Control Leader			
Cleaning and Disinfection Leader			
Product and Stores Control Leader			
Ante-Mortem/Livestock Leader			
MPI Verification Services			
AQ			

Appendix 2: Risk organism response team profiles

Table 2: Risk Organism Response Team Profiles

RORP Site Coordinator and Back up Coordinator	
Leads risk organism readiness and response. Responsible for the RORP	
Readiness	Maintain awareness of personnel
	Maintain induction training
	Maintain RORP
	Available for audits of RORP
Response	Coordinate with MPI investigation
	Implement RORP
	Coordinate Team
	Liaison with company HQ and MPI
Exit Control Leader	
Responsible for coordination of exit and entry procedures during a response	
Readiness	Maintain awareness of exit control plan
	Maintain required inventory
	Check facilities (showers, truck washes, etc.) are in working order
Response	Security of unattended gates and perimeter
	Control exits
	Vehicle holding requirements
	Records of entry/exits
	Clean and disinfect livestock truck suspect mob arrived in
	Showering of personnel from High Risk Processing Areas
Cleaning and Disinfection Leader	
Responsible for coordination of cleaning and disinfection procedures during a response	
Readiness	Maintain awareness of C&D plan
	Maintain required inventory of disinfectants and equipment
Response	Cleaning and disinfection of High Risk Processing Area as per MPI requirements
	Effluent control and disinfection
	Waste water control and disinfection
Product and Stores Leader	
Responsible for coordination of product storage procedures during a response	
Readiness	Maintain awareness of product and stores plan

	Maintain product inventory
Response	Product isolation requirements
	Maintenance of unaffected product integrity
	Inventory control methods
Ante-Mortem/Livestock Leader	
Responsible for coordination of stock unloading/holding procedures during a response	
Readiness	Maintain awareness of livestock plan esp. surveillance and segregation requirements
	Ensure fences are in a stock proof condition
	Identify suitable pens for segregation of suspect livestock
Response	Suspect pen requirements per species
	Protective clothing requirements when dealing with livestock
	Livestock truck holding areas
	Increase surveillance

Appendix 3: Induction/refresher programme outline

Table 3: Induction/Refresher Programme Outline

Importance of biosecurity

Required for access to markets

If there is a biosecurity incursion, an efficient response will allow the plant to resume work quickly.

Your company has a plan in place in case of an outbreak. There are numerous diseases which could occur, but the worst case is Foot and Mouth Disease (FMD).

Clinical signs of major diseases

- Slobbering and smacking lips
- Shivering
- Tender and sore feet
- Sores and blisters
- Raised temperature

Immediately contact supervisor or MPI Veterinarian!

Risk Organism Response Team

Leading any disease response at this plant is the Risk Organism Response Team. The RORP team at this plant consists of:

[INSERT NAMES OF RORP TEAM].

Duties of personnel in event of response

- Implement any containment instructions given by MPI vet or Incursion Investigator (given under Biosecurity Act).
- During an investigation do NOT contact people outside plant about the investigation (a false rumor could cause considerable damage to the NZ economy).
- You may be a biosecurity risk - employees and their vehicles may not leave the site unless undergone cleaning and permitted to leave.
- "High Risk Processing Areas" are areas that have had suspected infected livestock or animal product. It automatically includes the yards and livestock trucks. Personnel who have been in a High Risk Processing Area will be required to shower before they leave.
- Containment is vital. Do not move from a High Risk Processing Area to a Low Risk Processing Area.
- Low risk personnel are those who have not been in contact with livestock or animal product.
- Continue production as directed.
- Avoid movement around the site.
- Personnel may be required to stay to do a clean down of the site.
- After leaving site, personnel should keep away from livestock if possible.
- Meat and equipment should not be taken off site.

Appendix 4: Inventory of disinfectants and equipment

Table 4: Inventory of Disinfectants and Equipment

Inventory Item for Cleaning & Disinfection		Locations stored
Signage		
Emergency Tape		
Foot bath		
Buckets		
Apron		
Paper towels roll		
Calibrated measuring jug		
Spray sol bottle with trigger		
Safety glasses		
Disposable latex gloves box		
Household washing gloves pack		
Veterinary gloves long box		
Disposable overalls		
Rain jacket or smock		
Company locks and chains for securing gates		
Wheelie Bin or sealable rubbish bin		
Scrubbing brushes/brooms		
Water blaster		
Disinfectants on site	Amount	Location stored
Disinfectants available at short notice	Amount	Supplier

Appendix 6: MPI incursion investigator instructions

Table 6: MPI Incursion Investigator Instructions

Person logging call and time:

Name of MPI Incursion Investigator:

Activities and other requirements from MPI: (this will include source of livestock, farm contact details, etc.)

Likely time of arrival of Initial Investigating Veterinarian (IIV):

If an IIV is sent by MPI:

- Notify Risk Organism Response Plan Team
- Keep suspect mob segregated in the yards
- Assist IIV in examining livestock, etc.
- Determine High Risk Processing Areas (where suspect livestock or product have been in contact)

Provide information on history of livestock mob (owner, transport, etc.)

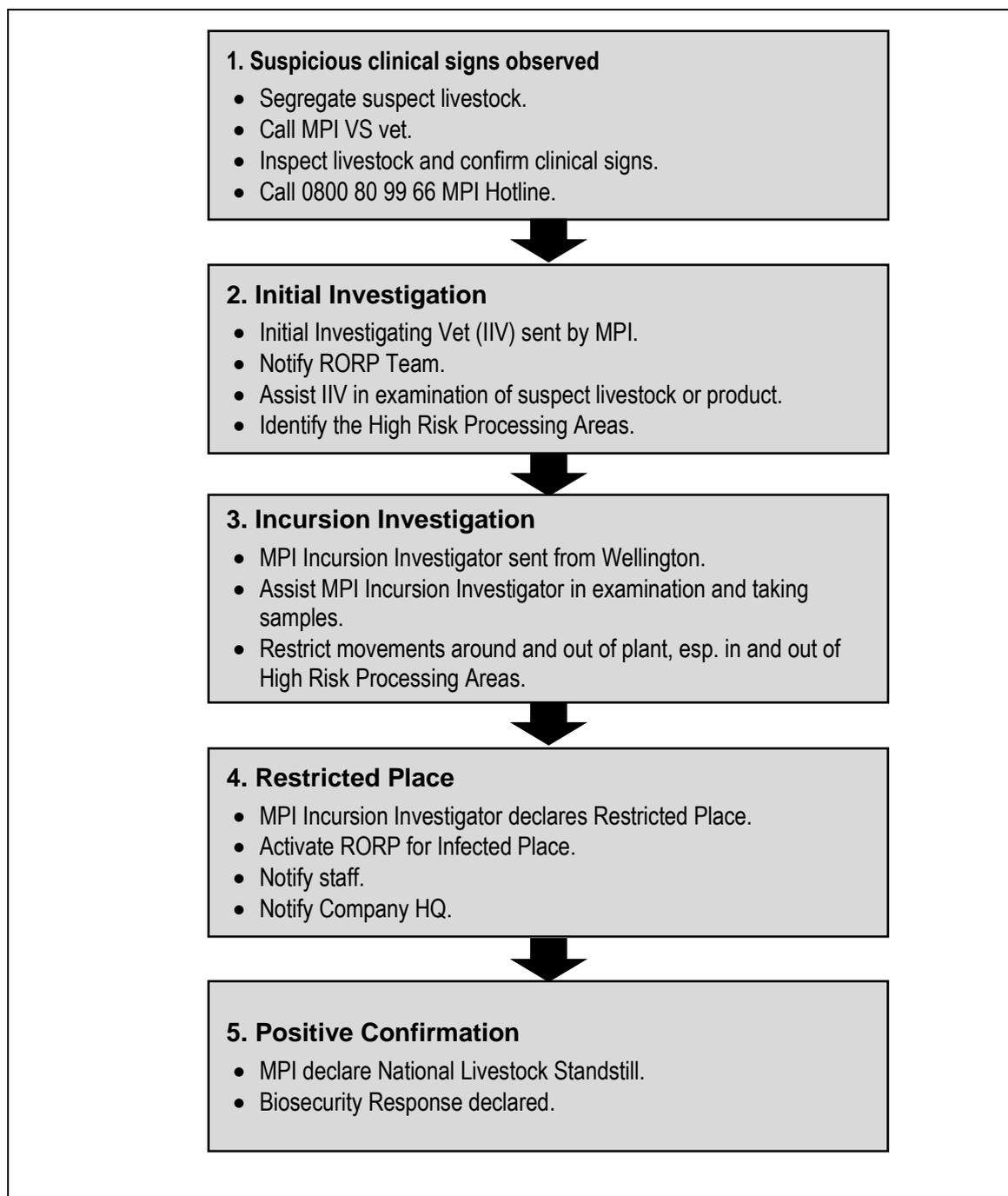
Appendix 7: Notify personnel in event of restricted place being declared by MPI

Table 7: Notify Personnel in Event of Restricted Place Being Declared by MPI

- MPI have declared the plant a Restricted Place under the Biosecurity Act.
- There is an MPI investigation but nothing is confirmed at this point.
- Processing will continue.
- Follow all instructions from MPI personnel.
- Exit controls have been put in place. All personnel may only leave the site at controlled exits.
- Movements around the plant should be kept to a minimum.
- Personnel who have been in direct contact with suspect livestock or animal product should wash or shower before they leave the site.
- Personnel should ensure that suspect product is kept separate from other product, and that suspect livestock are kept separate.
- Leave normally. No animal product or equipment may leave the site.
- If you leave the site, avoid going to farms and/or contact with livestock.

Appendix 8: Biosecurity investigation process

Table 8: Biosecurity Investigation Process



Appendix 9: Livestock controls

Table9: Livestock Controls

<p>Who is Responsible: Livestock Control Leader</p> <p>Equipment and Supplies Needed:</p> <ul style="list-style-type: none"> • Paint for marking suspect livestock • Rubbish bags • Boots • Disposable overalls or waterproof coats/over trousers 	
Activity	Time Done
Mark suspect livestock with paint or other marker	
Segregate suspect mob in separate pen, considering: <ul style="list-style-type: none"> • Separate drainage from pen • Maximise distance from other livestock • Minimise movements 	
Bring in livestock from boundary fences	
Livestock cleaning and hosing of pens minimised	
Increased surveillance of livestock on trucks and in yards	
Ensure ASDs are processed and maintained	
Explain situation to livestock drivers and request their cooperation	
Keep Exit Control Leader informed on status of livestock trucks on site	

Appendix 10: Showering high risk personnel

Table 0: Showering High Risk Personnel

Who is Responsible:

Exit Control Leader

Equipment and Supplies Needed:

- Soap, shampoo and hot water at usual work shower locations
- Clean towels
- Disinfectant – 1% Virkon S or 0.2% Citric Acid
- Plastic rubbish bags
- Stamp or marker for hands after showering

Guidelines:

- After completion of work, high risk personnel should wash boots as normal and remove gloves/etc., take a complete shower, including hair, for a full three minutes using soap and shampoo.
- Street clothing should be kept separate from protective and/or work clothing.
- There should be no contact with clean street clothing until full showering procedures are complete.
- All potentially contaminated clothing should be collected in plastic rubbish bags for laundering prior to showering occurring.
- All potentially contaminated clothing should be stored physically separated until final disposition.
- A container of Virkon or other appropriate non-corrosive disinfectant should be made available to disinfect eye glasses and any personnel jewelry along with forceps for their removal.

Actions:

- Wash boots and remove equipment as normal.
- Remove all protective clothing and place in plastic bag for laundering
- Proceed to shower and wash thoroughly, for at least 3 minutes. Ensure full cleaning of exposed parts of body:
 - Hands and under fingernails
 - Face and neck
 - Shampoo hair
- Disinfect shower exit and place a clean bathmat on floor
- Put on clean clothing and footwear
- Have back of hand stamped or marked by supervisor to show have been washed/showered
- Proceed to clean area or to exit via clean areas

Appendix 11: Gate control

Table 1: Gate Control

<p>Who is Responsible: Exit Control Leader</p>	
<p>Equipment and Supplies Needed:</p> <ul style="list-style-type: none"> • Signage (stating Biosecurity Emergency – Plant Closed) • Wheelie bin or sealable rubbish bin (as amnesty bin) • Log book and pen 	
<p>Guidelines:</p> <ul style="list-style-type: none"> • Secure all uncontrolled gates and exits • All exits are secured and signs put up • Any meat or equipment should be disposed of in amnesty bin • High risk personnel should show stamp on back of hand to show they have washed/showered. • Keep register of all livestock trucks exiting, noting down name of driver, contact details and destination. • Vehicles for biosecurity response may enter, but other vehicles may not enter. 	
Vehicles	Treatment
Livestock truck that carried suspect livestock	Full cleaning and disinfection
Livestock truck from same farm as suspect mob	Full cleaning and disinfection
Other livestock trucks	Wash to remove all mud/dirt
Vehicles going to or from farms	Wash to remove all mud/dirt
All other vehicles	Leave normally – avoid going to farms.

Appendix 12: Cleaning and disinfection for high risk vehicle

Table 12: Cleaning and Disinfection for High Risk Vehicle

Who is Responsible:

Exit Control Leader

Equipment and Supplies Needed:

- Approved disinfectant in handheld spray bottle and a soak bucket
- Wash cloths
- Scrubbing brushes
- Sealable plastic bags
- Rubbish bags
- Protective clothing / goggles / gloves / knee pads
- Vacuum cleaner
- Window cleaner and paper towels
- Water blaster with short wand (lance) and foaming unit (if available)
- Backpack type sprayer unit
- Recommended Disinfectants:
 - 1% Virkon S
 - 0.2% citric acid
 - GeoSIL DS (required at 3%) (for exterior)
 - Pour n' Go RV & Marine (for exterior)
 - 10% washing soda (for exterior)
 - 4% Sodium carbonate – anhydrous (for exterior)

Guidelines:

Interior of risk vehicle

- Lightly spray the interior of the vehicle, shut the doors, windows, and leave for 10 minutes.
- Seat covers, carpet mats, etc. soak in disinfectant for 10 minutes, place in plastic bags and seal for owner to take home for laundering.
- Return to the vehicle, scrub and clean the foot pedals, vacuum the floors
- Wipe over the entire cab with disinfectant solution, including doors, ceiling, dashboard, steering wheel, handbrake, gear-stick, seats, and pedals.
- Re-spray the interior surfaces of the vehicle with disinfectant. Close all the windows and doors leave for 10 minutes.
- Clean inside of windscreen with window cleaner to remove any overspray and ensure visibility of driver.
- Check with disinfection team leader for clearance.

Exterior of risk vehicles

- Ensure any effluent tank outlets on trucks are closed.
- If vehicle has dual wheels, clean the wheels when they have been removed by the specialist wheel remover. This operation is to be done on a flat surface.
- Using the 500mm lance, fitted with a foaming unit if available, begin applying disinfectant by foam or spray to the wheels, wheel arches, dog boxes, undercarriage, sides of crates, trailer, and body work (working from bottom to top of the vehicle) leave for 10 minutes.
- Inside the crate or deck of truck/trailer, using the short wand fitted with a foaming unit (If available), start applying foam or spray to the front left corner closest to the cab. Apply the foam or spray ensuring complete coverage of all surfaces. Leave for 10 minutes.
- Using a high pressure hose, wash the exterior of the vehicle ensuring all dirt and manure is washed from the vehicle. Use the water blaster to remove stubborn material.

- Drain the effluent tanks (if fitted) and flush them out as much as possible using the high pressure hose. Add 1 litre of concentrated disinfectant. Close effluent tank.
- Spray, with backpack sprayer, the exterior of the vehicle with approved disinfectant working from bottom to top to re-disinfect all external surfaces, leave for 10 minutes.
- Check with disinfection team leader for clearance.

Appendix 13: Cleaning and disinfection guidelines

Table 3: Cleaning and Disinfection Guidelines

Who is Responsible:

Cleaning and Disinfection Leader

Equipment and Supplies Needed:

- Approved disinfectant in handheld spray bottle and a soak bucket
- Water blaster with short wand and foaming unit (if available)
- Backpack type sprayer unit (if available)
- Recommended Disinfectants:
 - 1% Virkon S
 - 0.2% citric acid
 - 10% washing soda
 - 4% Sodium carbonate – anhydrous

Guidelines:

Assist in Site Disinfection Action Plan

- Provide MPI Incident Controller site plan, including information such as the location of taps, electricity poles and lines, underground cables, etc.
- Identify the High Risk Processing Areas at the site.
- Identify the location of drainage and water runoff.
- Provide what resources can be provided (i.e. hoses, water blasters, etc.).
- Identify any Health and Safety risks to the Incident Controller.
- Health and safety – **The health and safety of workers is paramount!**
- Identify any health and safety risks to workers (such as risk of falls, hot water, chemical use, etc.) and how these risks will be controlled.
- Chemical disinfectants must be handled in accordance with the plant health and safety guidelines.
- Personnel mixing or applying disinfectants must wear boots, overalls, goggles and head covering for protection. Always wear a protective face guard when mixing. To avoid the risk of inhalation, do not use a mist sprayer.
- Never mix different disinfectants.
- First Aid boxes should be available where hazardous chemicals are being used.
- Before commencing operations, all personnel must be briefed on health and safety procedures.

Disinfecting stockyards

- Wash down with hoses to remove all waste.
- Ensure that waste water is contained.
- Foam or spray ground area within the yards, all fences, pens and support timbers. Work from highest to lowest.
- Ensure all sides of gates and timber are foamed or sprayed – pay particular attention to high contact areas.
- Ensure disinfectant remains on surfaces for 10 minutes.
- Give the area a rinse.
- If there are concerns that area has not been completely disinfected, then re-disinfect with spray or foam.

Disinfecting interior High Risk Processing Areas (slaughter floor, boning room, etc.)

- Remove all waste.
- Note where waste water drains to.
- Undertake normal cleaning procedures.

- Add disinfectant to water, or spray/foam for 10 minutes. Scrub all surfaces.
- Give the room a rinse – thoroughly hose down all plant and equipment.
- If there are concerns that room has not been completely disinfected, then re-disinfect.

Laundering contaminated clothes

- Clothes should be sponged or washed down to remove material, soaked for 10 minutes in disinfectant (1% Virkon or 0.2% citric acid) and washed normally.
- Boots, aprons, scabbards, steels, hooks, and other equipment should be washed down and scrubbed with disinfectant solution, soaked for 10 minutes in disinfectant, and washed with hot water (82-degrees).

Appendix 14: Waste water and effluent treatment

Table 14: Waste Water and Effluent Treatment

Type	Treatment Required
Left in tanks	At least three weeks
Heat	100°C for 1 hour or an equivalent heat effect (ensure all materials reach the required temperature). 115°C in the centre of all solid material for 30 min or an equivalent heat effect, e.g., in rendering. If dry waste, heat at 50°C for 48 hours.
Chemical	Ensure pH is less than 5.0 or more than 11.0. Thorough mixing of the materials should be carried out to ensure all viruses are exposed to the required pH level for a minimum of 30 minutes. After treatment the mixture should be neutralized and the pH should be checked before the effluent is released.

Appendix 15: Disinfectants for FMD virus

Table 15: Disinfectants for FMD Virus

Adapted from FAO manual: <http://www.fao.org/docrep/004/y0660e/Y0660E03.htm>

Disinfectant group	Form ¹	Strength ²		Contact time ⁴	Applications and precautions
		Usual dilution	Final ³		
Oxidizing agents:					
Sodium hypochlorite NaOCl	Conc. liquid (10–12% available chlorine)	1:5	2–3% available chlorine (30 000 ppm)	10–30 min	Effective for most applications except when in the presence of organic material. Less stable in warm, sunny conditions above 15°C.
Calcium hypochlorite Ca(OCl) ₂	Solid	30 g/litre		10–30 min	Toxic for eyes and skin. Strong bleach. Inhibited by high concentrations of organic matter. Corrosive for many metals.
Virkon® (Potassium peroxymonosulfate, Sodium dodecyl benzene-sulfonate, sulphamic acid)	Powder	20 g/litre	2–3% available chlorine (30 000 ppm) 2% (w/v ⁵)	10 min	Excellent disinfectant, active against all virus families.
Alkalis:					
Sodium hydroxide	Pellets	20 g/litre	2% (w/v)	10 min	Caustic for eyes and skin. Do not use in the presence of aluminium and derived alloys.
Sodium carbonate anhydrous (Na ₂ CO ₃)	Powder	40 g/litre	4% (w/v)	10 min	Recommended for use in the presence of high concentrations of organic material.
washing soda (Na ₂ CO ₃ ·10H ₂ O)	Crystals	100 g/litre	10% (w/v)	30 min	
Acids:					
Hydrochloric acid	Conc. acid (10 Molar)	1:50	2% (w/v)	10 min	<u>Used only when better disinfectants not available.</u> Toxic for eyes, skin and respiratory passages. Corrosive for many metals and concrete.
Citric acid	Powder	2 g/litre	0.2% (w/v)	30 min	Safe for clothes and body decontamination. Especially useful for FMD virus decontamination.

Disinfectant group	Form ¹	Strength ²		Contact time ⁴	Applications and precautions
		Usual dilution	Final ³		
Acetic acid (2%)	95% liquid	1:30-45	2-5% (v/v)	10 min	Water purification and plumbing disinfection

¹ Usual form supplied.

² Recommended working strength.

³ Final concentration.

⁴ Required contact time for inactivation of disease agents.

⁵ w/v = weight/volume (e.g. 2g/100ml).

Appendix 16: Notify personnel in event of biosecurity response being declared by MPI

Table 16: Notify Personnel in Event of Biosecurity Response Being Declared by MPI

- MPI have declared a Biosecurity Response under the Biosecurity Act.
- A National Livestock Standstill has been declared by MPI. No livestock will be permitted to leave farms or sale yards, and livestock already on the roads is directed to continue directly to the destination.
- There will be heightened surveillance of livestock for clinical signs.
- Processing will continue until the yards have been emptied.
- Leave normally. No animal product or equipment may leave the site. Ensure your supervisor has your phone number, so you can be contacted on progress of the response and when processing is resumed.
- If you leave the site, avoid going to farms and/or contact with livestock.