

Australian Government

Department of Health and Aged Care Office of the Gene Technology Regulator

Annual Inspection Checklist for a PC3 Facility

Checklist for annual inspection against the usual Conditions of Certification as detailed in the Gene Technology Regulator's *Guidelines for Certification of a Physical Containment Level 3 Facility Version 1.0 - 01 December 2022*

Name(s) and signature(s) of person(s) inspecting the facility (please print name clearly)

Date of Inspection

Please Note

- 1 The use of this checklist proforma is **not** mandatory in order to satisfy the annual inspection reporting component of Condition 15. Rather, it is provided to assist those who find it convenient to use in the annual inspection of certified facilities for compliance with the conditions of certification under Condition 15.
- 2 A completed copy of this proforma will be accepted by the OGTR as the annual inspection report for a certified facility under Condition 15, but the proforma is **not** intended to be the **only** acceptable format for the report.
- 3 Please use the 'Application Checklist' against the requirements for certification (as opposed to this 'Annual Inspection Checklist') when applying for a new certification, or when seeking a variation to the requirements for certification of a facility (e.g. lifting the suspension of a certification after modifications to the facility.)
- 4 Please do not send this report to the OGTR unless specifically requested.

1 Facility details

Organisation			
Facility details	Cert-xxx PC3 Facility	□ Animal room(s)	□ Invertebrates room(s)
GMOs in the facility			
Relevant non-GMOs present			
Licences associated with facility			
NLRD(s) associated with facility			

2 Facility management

2.1 Facility manual

Person who is responsible for training of staff: ______

Date of last review: ______

Information required in the facility manual:

Required information	Addressed
Facility manager's contact details	
Emergency contacts details	
Copy of certification instruments and conditions of certification	
Copy of licences/NLRDs	
Copy of Guidelines for the Transport, Storage and Disposal of GMOs & Certification of a PC3 facility	
Structure & operation of facility (including design limits)	
Details of all GM and non-GM organisms used in the facility, associated risks, and risk management strategies	

Procedures to be included in the facility manual:

Procedures	Addressed
Procedures for handling animals and invertebrates held within the facility, if applicable, including the procedure to be implemented in the event an animal/invertebrate escape within or outside the facility and to account of all animal/invertebrate held within the facility	

Entry & exit procedures, PPE requirements and protocols for use / removal				
Procedures for use and operation of BSC / other aerosol containment equipment, including the removal of gloves and over-sleeves on completion of the dealing and prior to leaving the BSC				
Procedures for the use of sharps, if applicable, including circumstances in which sharps to be used				
Procedures for movement of equipment out of facility, including its decontamination				
Procedures and validation for use of decontamination chamber if present				
Procedures for decontamination of GM organisms, including use of the autoclave				
Procedures and triggers for the gaseous decontamination				
Procedures for disposal of waste and effluent, including their transport				
Procedures for transporting viable GMOs inside the facility, including transport of GMOs for storage				
Procedures for the transport of viable material outside the facility (e.g. to another PC3 facility)				
Circumstances or events which must be reported to the Regulator				
Contingency plans for:				
Spills of GMOs inside and outside the facility				
Accidental exposure/medical emergencies to the GMOs				
Escape of animals or invertebrates containing GMOs within or outside the facility, if applicable				
Alarms for fire or loss of pressure				
Release of GMOs from the facility (e.g., loss, theft or unintentional release)				
Failure of power or ventilation systems				
Failure of power or ventilation systems Failure of autoclaves and other decontamination systems				
Failure of autoclaves and other decontamination systems				
Failure of autoclaves and other decontamination systems Failure of BSCs and other aerosol containment equipment				

2.2 Record keeping

Required to keep for *at least 3 years of records

** at least 12 months of records

Conditions	ltem	Frequency	Completed	Comments
C14, C15, C22	Inspection of facility	Annually*		
C21	Pest prevention strategy	Ongoing*		
C26 C28 C31	BSC	Annually*		
C26 C28 C31	IVCs & change stations	Annually*		
C26 C33 C34	Autoclave (maintain)	Annually*		
C32	Autoclave (validate)	Quarterly**		
C26 C33 C34	LWTS	Annually*		
C36	Backflow prevention device	Annually*		
C37 C38	Ventilation	Annually*		
C68	Gaseous decontamination	As required per C69		
C72	List of all GM organisms in the facility	As required per C72		
C77-81	Training/ Update training records	As required per C77-81*		
C83	List of persons authorised to enter the facility	As required per C83		
C84	Facility manual review	Annually*		

2.3 Other

	Section	Requirement	Comments
C2	Annual shutdown	Facility inspected after annual shutdown, if applicable \Box	
C11	Work not including	Dealings above PC3 containment Housing of plants and aquatic animals beyond minimum time	
C77 to C80	Training	Authorised persons re-trained on last updated procedures? Training records updated Training of people who are authorised but not undertaking dealings e.g. tradie	
C85	Health monitoring	Procedures developed to: record accidents and potential exposure to GM human pathogens respond to exposure to GM human pathogens	
C4 C5	Authorised entry	Authority to exclude people from the facility \Box Entry is restricted to authorised people \Box	
C21	Pest Program	Program is proactive reactive Frequency	

3 Work practices

	Section	Requirement	Comments
C47 C48	PPE worn	lab coat closed footwear eye protection gloves skin abrasions covered Long hair tied/covered Optional face shield Mask respirator face shield PAPR booties double gloves	
R16	PPE storage	Dedicated hanging/storage for PPE Reusable PPE are stored in a manner preventing cross contamination	
C40 C41 C42	Personal effects	Food or drink not brought into/stored in the facility Personal items not taken into the facility Essential items decontaminated prior to exit	
C74	Transport of GMOs	Viable GMOs removed from the facility If yes, purpose of transport is: • Transport to other PC3 or PC4 facility • Export • Written permission from the Regulator Transport conducted in accordance with the <i>Guidelines</i> <i>for the Transport, Storage and Disposal of GMOs</i>	
C52 C54	Aerosol containment	Aerosol generating dealings with GMOs in BSC Centrifugation of GMOs in sealed containers	
C55	Sharps	Not used in direct connection with GMOs unless no alternatives are available	
C23 C76	Storage of GMOs	within work area only \Box Triple contained \Box	Exemptions? Alternate site inspected?

4 Inspection of the physical facility

4.1 General facility

	Section	Requirement	Comments
R2 R3	Facility Boundary	Facility sealable for gaseous decontamination Windows, if present, closed and sealed	
C22	Structural changes	Any since last inspection \Box	
C13	Containment	Facility not used as a primary containment facility \Box	
R6	Lifts	No lifts present 🗆	
R8	Pass through boxes /barrier autoclave	Type: Doors unable to be opened simultaneously Autoclave outer door opens only after successful decontamination	
R10 R11	Openings fitted with screens	Openings in walls, ceiling, or roof are screened Screens are: fixed and sealed against mounting made of appropriate material Small enough to prevent movement of invertebrates or animal	
R5	Penetrations	Sealed 🗆	
R17	Communication equipment	Primary equipment Alternative independent back-up system	
R31	Eyewash	Plumbed 🗆 Single use 🗆	
R13 R14	Surfaces Fixtures/fittings	Surfaces are: smooth, impervious to water and easily cleanable resistant to cleaning agent and decontaminants Open spaces between and under fixtures, fittings and equipment accessible for decontamination	
R9	Decontamination Chamber	Present \Box Doors unable to be opened simultaneously \Box	

4.2 Entry, airlock, anteroom

	Section	Requirement	Comments
R38	Inward airflow	Air pressure at the entrance of the facility or each work area	
R39 R40		During the normal operation, work area at least 50 Pa below the pressure outside the facility □ and When either airlock door is opened, air pressure in all work area remains at least25 Pa below the pressure outside the facility □	
C16	Signage on door	OGTR sign Biohazard sign Emergency contact numbers	
C43 C44	Facility access	Outer facility door lockable when unoccupied 🗌	
C45 C46		Entry and exit through airlock \Box Emergency exits only used in an emergency if present \Box	
R7	Airlock doors	Self-closing Sealed Self-closing Sealed Sealed Self-closing Sealed Sealed Sealed Sealed Sealed Sealed Sealed Sealed Sealed Sealed Sealed Sealed Sealed Sealed Sealed Sealed	
C18	Airlock	No GMO dealings other than transport No used PPE No handwash basins No equipment	
C19	Anteroom	No GMO dealings other than transport (or autoclaving) No used PPE No handwash basins No equipment	

4.3 Work area

	Section	Requirement	Comments
C17	Emergency contacts	Visible in each work area \Box	
R30	Hand decontamination	Present at or near the exit of work area Hands-free operation	
R15	GM dealing in multi room facility	Areas where GMO dealings are conducted are clearly identified	
C73	GMO labelling	Containers labelled to indicate they contains GMOs \Box	

4.4 Aerosol containment

	Section	Requirement	Comments
R20	BSC	Number & type	
		Powered by uninterruptable power supply \Box	
R21 C28 C29 C30 C52		Decontaminated before servicing Tested annually and after relocation HEPA filter integrity testing Result and date of the next test affixed to BSCs If defective, labelled appropriately	
		Used for all GMO dealings producing aerosols \Box	Any exceptions?
C28b C29 C30	IVCs and other aerosol containment devices approved in writing by the Regulator	Device type: Decontaminated before servicing Tested annually HEPA filter integrity testing Result and date of the next test affixed to equipment If defective, labelled appropriately	

4.5 Decontamination

	Section	Requirement	Comments
R12	Liquid effluent	Decontaminated prior to discharge from sink/floor drainage exit	
C59	GMOs/organisms infected with GMOs	Rendered non-viable before removal 🗆	
C60	Items removed from facility	Decontaminated prior to removal 🗆	
C57	Work surfaces	immediately after use \Box at end of day \Box	
C49 C61	PPE	Removed when exiting work area Removed prior to entering the airlock Decontaminated before reuse or disposal	
C25 C58	Equipment	Equipment decontaminated before maintenance	
C63	Other methods	UV / Irradiation Approved in writing by the Regulator	
C70	Spills	Spills kit present \Box	

Chemical decontamination

	Section	Requirement	Comments
C20 C67	Chemical decontaminants	Available supply of disinfectants Concentration and exposure time effective against the GMOs being decontaminated Users aware of the minimum exposure time required for effective decontamination	Present in all work areas
		Labelled (contents, concentration, expiry date) \Box	

Gaseous decontamination

	Section	Requirement	Comments
C68	Gaseous decontamination	Chemical used for gaseous decontamination:	
		Has the chemical been validated as effective against the GMOs \Box	
		Use of appropriate indicators for the validation of the decontamination	

Heat decontamination

	Section	Requirement	Comments
R22	Autoclave	present 🔲 Not in airlock 🗌	
C65		Type: barrier □ free-standing □ Doors unable to be opened simultaneously □	
C32		Physical parameters validated at least quarterly Via: Independent thermocouples or Chemical indicators which use a combination of moisture, heat, and time or Other	
C66		Combination of parameters (pressure, temperature, time) validated as effective against the organism being decontaminated or suitable surrogate	
C33		Annual testing and maintenance completed \Box , including: Calibration of temperature and pressure measuring probes \Box Testing and confirmation that all parameters of the system (temperature, time, pressure and flowrate) are operating within the specified limits \Box Testing of all safety and relief components, including the autoclave safety valves \Box and Maintenance of the equipment to ensure effective operating conditions \Box	
C34 C35		Result and date of the next test affixed to equipment \Box If defective, labelled appropriately \Box	
C64		Loads packed such that steam can be contact all material Measures to differentiate loads pre and post decontamination	autoclave tape 🗆
		Air, steam & liquid is filtered / decontaminated prior to discharge	

	Section	Requirement	Comments
R24 C33 C34 C60 C71	LWTS	Present Fully enclosed system Pipes clearly identifiable Leak detection present Vents to pipes, tanks filtered Restricted access to LWTS room Validated to ensure that it can achieve the parameters required to inactivate the most resistant organism used in the facility	
		Annual testing and maintenance completed \Box , including: Calibration of temperature and pressure measuring probes \Box Testing and confirmation that all parameters of the system (temperature, time, pressure and flowrate) are operating within the specified limits \Box Testing of all safety and relief components, including the	
		autoclave safety valves □ and Maintenance of the equipment to ensure effective operating conditions □	

4.6 Ventilation system

	Section	Requirement	Comments
R18 R19	Room access	Access to ventilation equipment restricted Ducts, and access panels clearly identifiable	
R32 R36	Exhaust and supply system	The facility fitted with a ventilation system establishing negative air pressure in the facility and a directional airflow into the work area(s) Exhaust & supply system interlocked	
		Exhaust fitted with: At least one HEPA filter through which all exhaust air is filtered Pre filter upstream Exhaust fan downstream of the exhaust HEPA Gas-tight air ducts between the facility and the HEPA filter housing	
R33 R34	Exhaust housing	HEPA mounted in gas-tight housing with sealed access doors	

	Section	Requirement	Comments
R37		Design and location of the filter housing allow for: Easy access Secure and damage free handling of the HEPA In situ gaseous decontamination Maintenance, replacement and integrity testing of the HEPA filter If gaseous decon performed on HEPA filters, Gas tight isolating valve present on: Air inlet duct Upstream port If pressure across HEPA filter measured, 0.2µm hydrophobic membrane filter present on facility side of	
C27 R41 R42	Ventilation system malfunction and alarm	HEPA Facility equipped with an audible alarm Facility equipped with an audible alarm Alarm activated when pressure in the work area(s) or airlock deviates from the set point by 15 Pa for more than 2 minutes In the event of failure or malfunction of the ventilation system: Use emergency stop button Notification to OGTR	
R35 C25 C37	Testing of the Ventilation system	Decontamination of the HEPA housing prior to testing or repair Annual testing and maintenance of the facility ventilation system including: Testing of the pressure differentials Checking directional airflow Testing of the alarm Testing of the alarm Testing of components of the ventilation system in a system failure scenario Calibration of transducers fitted to the air-handling system and validation of air-handling performance Calibration of pressure gauges The air handling control system If applicable, the building management system and Integrity testing of all HEPA	

4.7 Backflow prevention devices

	Section	Requirement	Comments
R25	Backflow	Water supply, connected directly or indirectly to any part	
R26 R27	prevention	of a water service, protected against backflow \Box	
C36		If no backflow prevention devices, documentation on risk	
		assessment/risk management plan available \Box	
		If defective, labelled appropriately \Box	
R28	Vacuum system	Present \Box if so, fitted with:	
		0.2 μ m hydrophobic membrane filters and	
		liquid disinfectant traps 🗆	
		If central vacuum system, filter and trap on the facility	
		side of the vacuum line \Box	
		If portable pump, filter and trap located before the pump	
R29	Piped gas	Present in a BSC \Box if so,	
		Reverse flow prevention on outlets in BSC \Box	
		or fitted with ≤0.2 μ m hydrophobic membrane filter \Box	

4.8 Animal work area

	Section	Requirement	Comments
Ani-C1 Ani-C9	Signs	Sign on outer door with special entry conditions/ animals present Documented system to account for all animals	
Ani-C6	Dealings generating aerosols	Conducted in BSC	
Ani-R1 Ani-C4 Ani-C5 Ani-C7 Ani-C8	Cages/enclosure	Cages/enclosures devices appropriate for the animals being housed present (all life stages) Animal infected with aerosol transmissible GMOs housed in sealed cages/enclosures fitted with exhaust HEPA filters (IVCs or ventilated enclosure HEPA filtered) Cage is labelled to indicate it contains a GMO and the number of animals within the cage/enclosure	
A-R2	Containers used for Euthanising	Container used for euthanising animal containing GM micro-organisms requiring PC3 containment and capable of being shed are: sealed and fitted with a gas inlet filtered with a 0.2 µm hydrophobic membrane	

	Section	Requirement	Comments
Ani- C11 Ani-	Decontamination	Animal carcasses decontaminated prior to removal from the facility \Box	
C12		Equipment, cages, bedding and animal waste decontaminated prior to removal from the facility \Box	

4.9 Invertebrate work area

	Section	Requirement	Comments
Inv-C1 Inv-C7	Signs	Sign on outer door with special entry conditions/ invertebrates present	
		Documented system to account for all invertebrates	
Inv-R1 Inv-R2	Anteroom	Anteroom present for entry to the room(s) housing invertebrates	
Inv-R3		Anteroom doors self-closing doors \Box	
		No dealings conducted within the anteroom Mechanism to prevent invertebrates from traversing	
		anteroom/airlock boundary \Box and	
		capable to be maintained in darkened/ lit state \Box	
		Means present to inspect and remove invertebrates on	
		persons exiting the anteroom \Box	
Inv-C5 Inv-C6	Cages/enclosure	Cages/enclosures devices appropriate for the animals being housed present (all life stages) \Box	
		Cage is labelled to indicate it contains a GMO \Box and the number of animals within the cage/enclosure \Box	
lnv- C10	Aerosols	Dealings with aerosol transmissible GMOs dealings conducted in BSC \Box	
Inv- C11 Inv-	Decontamination	Invertebrates euthanised prior to removal from the facility	
C12		Cage/containers decontaminated prior to removal from the facility \Box	
Inv-C9	Invertebrate trap	Room fitted with a suitable invertebrate trap \Box	