

BEST PRACTICE



This is part of a series of guidance documents produced by the NADIR FP7 project. There are various international and national standards in place for undertaking infectious work in animals with pathogens that require high containment facilities. These guidance documents be examples of how these can be practically interpreted

Training and Competence for Working in Containment Level 3 Animal Facilities

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INTRODUCTION

1.1 **Scope of this Best Practice**

1.1.1 This Best Practice requires that all personnel working in containment level 3 (CL3) animal facilities should be trained and competent. This guidance

- Defines the training and competence requirements (section 2.1); and
- Outlines the requirements for contingency drills (section 2.2).

1. **GENERAL**

2.1

2.1.1 Formal training is required to understand the:

The biological nature of the pathogens requiring category 3 containment

The legislative framework and standards required to work with them.

This knowledge will be required by staff as part of their formal training prior to being signed off as competent to work unsupervised.

Refresher training every three years is recommended.

2.1.2 All staff must read and sign in their Training Records that they have understood the relevant Standard Operating procedures (SOPs) and Risk Assessments.

2.1.3 Staff must complete a checklist of requirements (refer to example Appendix 1) prior to entering the containment facility for the first time. This is countersigned by the line manager or trainer. The checklist includes any necessary health surveillance schemes, training courses, Personal Protective equipment (PPE) fittings, security clearances and if necessary exclusion from susceptible species.

- 2.1.4 It is recommended that staff must complete a **minimum of 40 hours** supervised working within the relevant containment facility prior to assessment to work unsupervised.

During this period they must be trained as a minimum in the key requirements (see 2.1.6).

Training in procedural or testing techniques should be carried out using uninfected animals or those infected with biological agents that are categorised as CL2 or lower.. Where this is not possible, a specific Risk Assessment should be carried out and agreed with the institutes biosafety officer

Training to work in containment should be carried out on a one to one basis with the supervisor.

- 2.1.5 After completion of the minimum supervised period and once the member of staff feels confident in all the procedures they will be assessed for competence against the key criteria (see 2.1.6) by the Building Officer, their Deputy or other approved manager within the facility (refer to Appendix 2).

The person carrying out the assessment must not be the same member of staff who carried out the training of the individual being assessed.

- 2.1.6 The minimum key criteria for working at CL3
- Entry procedure
 - Operation of animal rooms – including set up, safe working and decontamination
 - Waste streams, decontamination and cleaning
 - Demonstration of knowledge of any PPE requirements (as defined in SOPs and Risk Assessments)
 - Completion of relevant logbooks – e.g. equipment, cleaning, entry/exit logs
 - Clothing and laundry requirements
 - Location of fire extinguishers, alarms and exits
 - Use of any dunk tank and/or pass hatch, where installed
 - Procedure in the event of any spillages
 - Procedure in the event of any alarm
 - Procedure in the event of a power failure
 - Procedure in the event of a fire
 - Procedure for out of hours or lone working
 - Transfer of pathogens or samples into and out of containment area
 - Receipt and storage of samples and/or pathogens
 - Exit procedure
 - Accident and incident reporting procedures
 - Health protocols and restrictions on subsequent contact with animal species

These criteria are considered to cover the minimum requirements for facilities and extra critical criteria can be set locally.

Prior to the assessment the member of staff must be able to provide evidence to the assessor that they have completed the minimum supervised working period.

Independent access to the facility is only given once competency has been assessed and confirmed.

- 2.1.7 Once a member of staff has passed the assessment and is authorised to work unsupervised it is recommended that they only work during normal working hours for a set period (e.g. 2 to 4 months). This is to ensure that a suitable competent member of staff is available to contact. The period must be agreed between the assessor, individual and their line manager and recorded.

- 2.1.8 To be considered as a supervisor or trainer a member of staff must work independently within the facility at least four times a month for a minimum of four months after passing the assessment. Prior to acting as a supervisor or trainer they must then be approved as a supervisor or trainer by the facility management, also with the endorsement of the Building Officer.

- 2.1.9 Trainers and supervisors must work at least four weeks per year within a facility operating at the same containment level.
- 2.1.10 Ongoing assessment – To ensure continuation of safe working practice, managers and Building Officers should review personnel working practices and their adherence to protocols through regular ad-hoc observation via CCTV or viewing panels and by working directly with staff.
- 2.1.11 If a member of staff has not worked within the facility for six months they must arrange for refresher training with the Building Officer, Deputy or approved trainer prior to working unsupervised. The refresher training must be documented within the training record.
- 2.1.12 It is good practice that the facility keeps a record of approved supervisors or trainers, competence assessors and staff authorised to work unsupervised (example in Appendix 3).

2.2 Emergency Scenarios and Contingency Drills

- 2.2.1 The institute has a responsibility to ensure that procedures are in place for the provision of safety drills, which shall be tested at regular intervals.
- 2.2.2 The key areas that must be included in these drills are:
- Fire (actual and alarms)
 - Power failure - prolonged (mains and generator failure)
 - Power failure - mains (generator back up working)
 - Spillage outside of primary containment
 - Spillage inside of primary containment
 - Failure of primary containment e.g. MSC/Isolator
 - Unconscious casualty
 - Alarms e.g. Air pressures, ETP
 - Fumigant vapour release
 - Others as dictated by local procedures
- 2.2.3 The frequency and content of the drills will be based on local assessment but as a guide these would be carried out on an annual programme. The key areas (in 4.2.3) are the minimum and other areas can be included as required locally.
- 2.2.4 Each department must keep a record of the topics covered in the drill as well as the names of the staff who participated.
- 2.2.5 All staff, both competent and those in training, must attend the drills. Staff must record their attendance on the drill in their Training Record.

2.2.6 Staff who are absent or do not participate in the drill must arrange for this to be carried out on an individual basis with the Building Officer or their deputy prior to them next working on their own.

2.2.7 A summary of the contingency drill should be sent to the institutes biosafety officer.

2.3 Control measures

2.3.1 At any containment level, the risk from work with biological agents is dependent on the severity of infection, the means of infection, quantity of agents being handled and the nature and location of the work. This should be addressed within a local risk assessment and,

2.3.2 Each containment facility must have a 'Building/Facility Operating Manual' which describes the routine operation of the facility, engineering controls and planned preventative maintenance (PPM) requirements.

24rd October 2013

Document History

Produced By AHVLA (Hugh Simmons) October 2013

Appendix 1

EXAMPLE CHECK LIST OF REQUIREMENTS FOR STAFF CL3 Animal Facilities

Subject	Trainee		Manager / Trainer	
	Sign	Date	Sign	Date
1. Counter Terrorist Check (CTC) cleared ¹ .				
2. Undertaking to not to have contact with specified species for <i>(insert number)</i> hours after visiting the containment facilities, signed and placed on registered file ² .				
3. Enrolled on Health Surveillance Scheme (<i>list schemes here</i>). Current version of Health Surveillance Protocol (<i>list references here</i> , understood, and signed off in training record. (Version logged) ³ .				
4. Enrolled on Respiratory and Skin Sensitisers Health Surveillance Scheme ⁴ .				
5. Current version of Risk Assessment(s) (<i>list relevant here</i>) read and understood, and signed off in training record.				
6. Disposable mask face-fit tested (include details of type) and logged ⁵ .(if applicable)				
7. Trained in fitting, use and maintenance of powered respirator and signed checklist in training record (if applicable).				
8.Theoretical training for 'working in containment facilities'	Booked			
	Attended			
9. Mandatory minimum 40 hours supervised training completed (with evidence).				
10. Competence assessment against building Standard Operating Procedure document approved by a Building Officer in consultation with line manager.				

* Delete as appropriate.

Activities 1-5 and 8 must be completed before a staff member enters the facility (accompanied) for the first time

Full competence in the use of High Security Containment Facilities building (<i>insert building number</i>) achieved.				
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Appendix 2

Example checklist for authorised access and independent working at containment level 3 following a minimum of 40 hours supervised work

Name of member of staff being assessed: _____

Task	Competence observed (Yes/No)	Signed (Building Officer or Deputy)	Date
Entry procedure (including removal of all clothing, personal items and jewellery)			
Laundry			
Operation of the animals rooms/suite – including set up and decontamination			
Safe working practice within the animal suite	Example		
Receipt and storage of samples and/or pathogens			
Transfer of pathogens or samples outside on containment area			
Routine room/suite operation including cleaning			
Logbooks completed			
Demonstration of knowledge of correct PPE requirements			
Correct containment of waste within the animal rooms/suite for fumigation/decontamination			
Room fumigated correctly, according to SOP (if applicable)			
Waste put into correct waste streams			
Exit procedure			
Location of fire extinguishers			
Use of dunk tank and/or pass hatch			
Demonstration of knowledge of procedure for spillages inside the containment room			
Demonstration of knowledge of procedure for spillages outside the containment room			
Demonstration of knowledge of procedure should alarms sound			
Demonstration of knowledge of procedure for a power failure			

Demonstration of knowledge of procedure in the event of a fire and emergency exits			
Demonstration of knowledge of procedure in the event of loss of negative pressure			
Demonstration of knowledge of procedure in the event of loss of primary containment			
Independent and out of hours working			
Personnel and building security			

Comments:

- Safe working practice demonstrated at all times:

-Others:

Example

Overall decision for Officer to work independently: *The officer can be failed if any of the competences are not observed and/or any detrimental observations are made by the assessor.*

PASSED

FAILED

In the following containment facility:

Name of Building Officer/Deputy/Approved Assessor:

Signature:

Date:

Appendix 3

Example template to record authorised staff for each facility/lab

Staff authorised to assess staff competence to work unsupervised in Building/Lab _____		
Name	Date	Authorised by
Staff authorised to train or supervise trainees in Building/Lab _____		
Name	Date	Authorised by
	Example	
Staff assessed competent to work unsupervised in Building/Lab _____		
Name	Date	Authorised by

