

CHAPTER 22

FINAL CLEANING & DISINFECTION OF INFECTED PREMISES

INTRODUCTION

This chapter details the requirements for managing the final cleaning and disinfection (C&D) operations on infected premises (IP) at the Local Disease Control Centre (LDCC) and on site. It covers the initial site assessment, the resources required, the procedures to be followed, the records to be kept and how to avoid health and safety (H&S), biosecurity and litigation problems.

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1. PURPOSE OF CLEANING AND DISINFECTION

The aim of the final C&D is to:

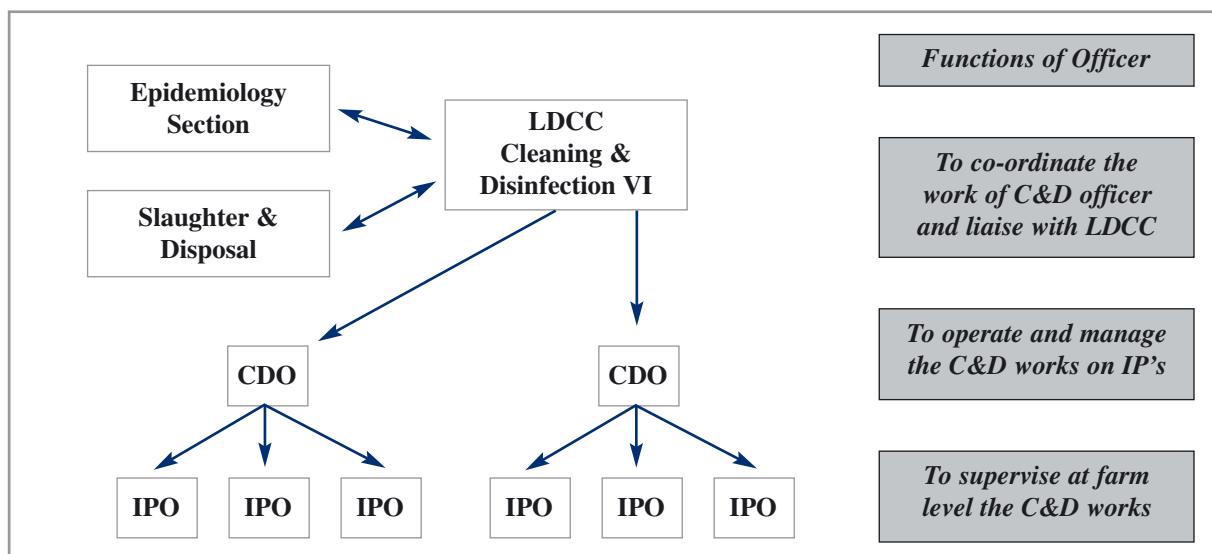
- prevent spread of infection by ensuring the effective and efficient decontamination of premises, people, equipment and vehicles
- prevent recurrence of infection after restocking
- conform with the legal requirements (Articles 5 & 10 of Council Directive 85/511/EEC & Article 11 of the draft Commission proposal to amend Directive 85/511 [Document COM (2002) 736 final]).

NB. The dates of completion of preliminary and final C&D are very important because they influence the date on which area restrictions may be lifted and the earliest date on which re-stocking can take place.

2. FACTORS TO BE CONSIDERED

- The final C&D commences a minimum of 24 hours after the susceptible animals have been destroyed and preliminary disinfection has been completed
- A burial site and/or a pyre will be located on IP lands or nearby
- The IP may be a farm, mart, assembly centre, animal breeding centre or a slaughter plant
- Farms may be fragmented – with or without buildings on individual fragments
- In the case of fragmented farms, the LDCC management will decide how individual fragments are to be treated, depending on the type of contact between the fragments
- The IP should be considered to be a disease risk until at least 21 days after final disinfection. Certain parts of an IP, e.g. burial sites, lagoons, and manure heaps, may pose a disease risk for up to 6 months
- The health and safety of all personnel must be ensured
- Measures must be taken to ensure that pollution of the environment is avoided.

3. MANAGEMENT STRUCTURE AND DUTIES AT LDCC AND IP



LDCC VI	Local Disease Control Centre Veterinary Inspector in charge of infected premises cleaning & disinfection
CDO	Cleaning & Disinfection Officer (Veterinary Inspector or a Technical Agricultural Office, depending on resources)
IPO	Infected Premises Officer (Technical Agricultural Officer)

3.1 Duties of VI in charge of C&D at LDCC

- a) Assign and supervise a C&D Officer (CDO) to one or more IPs and to co-ordinate a C&D strategy at each IP.
- b) Liaise with the IP disposal team on disposal methods, location(s) of slaughter, burial and/or pyre site locations, dates of preliminary disinfection, other high risk areas.
- c) Ensure that the locations at which animals were kept and estimates of minimum date of presumed infection (as provided by the epidemiology team) are taken into account on each IP (and, where necessary, the same for dangerous contact premises).
- d) Assess and respond to site assessment reports submitted by CDOs.
- e) Consult with Local Authority engineering and environmental officers and Teagasc management, as appropriate.
- f) Supervise CDOs and liaise at least daily with CDOs and with LDCC related activities.
- g) Ensure that correct legal restrictions are in place at each IP.
- h) Re-inspect final disinfection and certify if satisfactory (if resources do not allow a CDO will do this).
- i) Record completion dates for preliminary and final disinfection for each IP (and update NDCC with these).
- j) Ensure that all biosecurity, health and safety and environmental precautions are being taken.

It is important that the same team (LDCC VI, CDO and IPO) deal with an IP from start to finish. This will prevent breakdown in communications or misunderstandings regarding the standard of work required.

Personnel involved in C&D activity must not have any contact with susceptible animals for the duration of the C&D work.

3.2 Duties of Cleaning & Disinfection Officer (CDO)

A CDO should manage up to 10 IPs, depending on the size and complexity of the premises, and may replace an IPO if there is only one IP. The duties of the CDO are to:

- a) Assign an IPO to each IP.
- b) Conduct site assessment and submit to LDCC VI for approval.
- c) Draft a work schedule for each IP.
- d) Organise the staff and equipment necessary for C&D.
- e) Ensure that adequate records are kept.
- f) Ensure that any costs are controlled and any damage recorded.
- g) Visit each IP daily and supervise operations and controls.
- h) Ensure receipt of daily reports and weekly progress reports from each IP (where appropriate).
- i) Report to LDCC VI daily and as necessary.
- j) Inspect final disinfection and recommend certification to LDCC VI (or certify, if so instructed).

3.3 Duties of Infected Premises Officer (IPO)

- a) Supervise one IP at all operating times during C&D.
- b) Ensure all staff on site are aware of the rules applying to movement on and off an infected premises (see Annex 5 of Chapter 26, **Notices**).
- c) Carry out the work schedule.
- d) Ensure compliance with biosecurity measures at entry/exit and during C&D.
- e) Verify that all staff leaving the IP have reported to the Local Biosecurity Centre (LBC) each day.
- f) Keep a daily log of all events on site.
- g) Record hours worked by staff and details of all hired equipment.
- h) Ensure documents/records are kept securely on the IP, e.g. filing cabinet or portacabin.
- i) Follow strict biosecurity rules when removing documents from the IP.
- j) Ensure all staff are aware of H&S rules, that all protocols are correctly adhered to and record any H&S incidents.

- k) Ensure that disposal of waste (including wash water) is carried out in a manner that safeguards the environment.
- l) Report daily and weekly progress to CDO.

4. BASIC SUPPLIES FOR CDOS & IPOS

4.1 Equipment

- a) Mobile phone
- b) Disposable camera
- c) First aid kit
- d) Rubber boots
- e) Bucket and brush
- f) Supplies of protective clothing
- g) Disposable and fabric gloves
- h) Face masks
- i) Autoclavable plastic bags/heavy duty plastic bags + cable ties
- j) Supplies of disinfectant
- k) Goggles
- l) Washable clip board + worksheets
- m) All weather note pads and pen

4.2 Documentation

- a) List of approved local goods and services suppliers, local phone directory (Golden Pages)
- b) Movement permits
- c) Copy of any Local Authority stipulations or reports relating to slurry/ lagoons/watercourses etc.
- d) Technical information on disinfectants and data sheets for dilutions for FMD
- e) Principles of cleaning and disinfection (see **Annex 1** below)
- f) Chapters 15, **Procedure for personnel biosecurity** and 16, **Local Biosecurity Centre**

- g) H&S information (see **Annex 2** below)
- h) Paperwork required for site assessment and works schedule:
 - the estimated minimum date of presumed infection (supplied by the Epidemiology Section)
 - the disposal team leader's advice
 - LPIS/orthophotography maps of the IP (premises/farmyard and lands) of a suitable scale. LDCC VI will provide two copies – one for display on site and the other for own file
 - Protocol for securing the site (see **Annex 3** below)
 - Protocol for site assessment and C&D plan of action (see **Annex 4** below)
 - Site assessment form (see **Annex 5** below).

5. PROTOCOL FOR SECURING THE IP ON THE DAY OF ARRIVAL

The IPO must ensure that the actions set out in the Protocol for Securing the Site in **Annex 3** are taken immediately on arrival on the site.

6. SITE ASSESSMENT (MAPPING, PLAN OF ACTION, WORKS SCHEDULE)

After securing the IP, the site should be assessed using the Protocol for Site Assessment and C&D Plan of Action (see **Annex 4** below) and the Infected Premises Site Assessment Form (see **Annex 5** below).

7. ACQUIRING PERSONNEL AND EQUIPMENT

7.1 General principles

- a) The works schedule should generate an estimate of the personnel required and the types of equipment needed at any time during C&D.
- b) Optimal personnel and equipment levels should be deployed (not too many, not too few)
- c) The CDO should be aware of commercial and Local Authority rates applying to personnel and equipment hire.
- d) All personnel employed on the IP must be adequately insured.
- e) All personnel must read the H&S information on display and sign a declaration to state that they have done so.

7.2 Options for sourcing personnel and equipment in order of preference:

- a) Existing farm staff and equipment.
- b) Local Authority (LA) contractors and/or staff. The LA may provide heavy machinery contractors and staff for removal and burial of animal wastes etc. These machinery contractors are insured. Copies of the records of work carried out and hours worked by personnel and the hire time for each machine should be returned at least weekly to the LA. (The LA make relevant payments and recover these costs later from DAF.)
- c) Farm Relief Service.
- d) Approved contractors may be employed to carry out some or all of the work on a job basis. A number of contractors should quote for each IP (if possible). This can be the most cost efficient method of having the work carried out. The disadvantages of this are possible delays and increased number of personnel visiting IPs. An accurate assessment of the work involved is also needed and there may be greater difficulty in ensuring quality control.

NB. All personnel to be paid directly by DAF must be registered on the Client Registration System.

8. RECORDS TO BE KEPT

8.1 The following records must be kept on each site:

- a) **Daily log** of all events on site (including all communications).
- b) Copies of **permits** in and out.
- c) **Invoices**, delivery dockets.
- d) **Staff** on site each day.
- e) **Equipment** on site each day both working and not working.
- f) Copy of any **agreements** with staff/contractors.
- g) Record of all **H&S** incidents.
- h) **Weekly progress reports** (for CDO and subsequent transmission to LDCC VI).
- i) **Daily work sheets** compiled by individuals carrying out the work (and signed off by the IPO) showing:
 - daily tasks undertaken for each day
 - number of hours worked by each labour unit
 - details of all machinery used each day.

9. HEALTH AND SAFETY INFORMATION

- 9.1 A copy of the Health & Safety document in **Annex 2** must be given to all personnel employed on C&D (farmer/contractor/other staff).

A laminated copy of this should be placed in a prominent place on the IP where it will be in view of personnel present.

9.2 Injury/illness of staff on I/P

If a person needs medical attention while on an IP, normal Personnel Biosecurity procedures should be applied unless the delays involved pose an additional risk to the patient.

When Personnel Biosecurity procedures are bypassed appropriate follow-up biosecurity measures should be applied at the earliest opportunity (e.g. disinfection of ambulance).

10. PROBLEM PREVENTION

10.1 At start up

- a) Do not rush or be rushed.
- b) Cool and calm planning and execution will allow for a better outcome.
- c) C&D is tedious - great care is needed to maintain standards.
- d) Communicate clearly and make sure all directions are understood. When necessary, put them in writing.

10.2 H&S

- a) Disconnect the electrical supply.
- b) **Nobody** should be permitted to walk onto roofs or into slurry tanks.
- c) The exterior of roofs do not normally have to be C&D.
- d) Asbestos roofs should not be power hosed or scraped.
- e) Make maximum use of daylight hours.

10.3 Biosecurity

- a) Do not employ personnel who have contact with susceptible species.
- b) Do not allow low loaders on site due to impossibility of C&D the undersides.
- c) Maintain tightly controlled hygiene measures for people and equipment exiting the IP. Ensure that the LBC shower facilities are used by all personnel.

- d) If animal wastes are dusty, damp them down with disinfectant prior to removal.
- e) Water used for power washers should contain disinfectant - to prevent disease spread by aerosol.
- f) Disinfectants tend to be ineffective in the presence of organic material.
- g) Citric acid and washing soda neutralise each other.
- h) Appropriate contact time is an important element of disinfection.
- i) Prevent cross contamination of areas which have been C&D by those awaiting C&D. It may be useful to tape off areas after initial C&D is completed.
- j) Avoid contaminating the LBC and LDCC with materials and documents from the IP. Strict biosecurity rules must be followed, i.e. place two 'infected' pages back to back in an A4 zip-lock plastic bag. Seal and disinfect the outside of these prior to removal from the IP to the LBC. Photocopy paperwork through the plastic bags (**do not remove pages from the bags**). Return pages still in the bags to the farm for secure filing – bags can be reused as necessary for this.
- k) Remember to clean the cleaning equipment itself regularly.

10.4 Prevention of subsequent disputes regarding costs or litigation

- a) Do not destroy items that can be safely salvaged.
- b) Be aware of commercial and Local Authority rates prevailing for machinery hire, labour and goods.
- c) Clearly define the work to be undertaken and record payments agreed with farmers, contractors or third parties.
- d) Where possible, agree valuation of any items to be destroyed, and keep a written record of such agreement.
- e) If it is not possible to agree a valuation, an accurate description of the item should be filed. If it is of significant value, employ an auctioneer. (NB. Agree auctioneer's fees in advance.)
- f) For items of significant value seek authorisation from the LDCC VI before destroying.
- g) Use appropriate disinfectants on equipment. Some equipment may need to be coated with a rust inhibitor after disinfection.
- h) Record details of any buildings or equipment damaged during C&D. (These costs may be recoverable from a third party).

- i) Keep personnel and equipment levels to the minimum necessary for efficient execution of the work.
- j) Release machinery as soon as possible. Do not exclude use for any unnecessary period, as claims for down time may be significant.

11. FINAL ACTIONS BEFORE LEAVING THE SITE

11.1 Before leaving the site ensure that the following procedures have been carried out:

- a) All vehicles and equipment have been permitted off site.
- b) All water and ESB meters have been read and recorded.
- c) All relevant documentation has been completed – including the certificate of completion of final disinfection.
- d) Correct legal restrictions continue to apply – **Form B** applies until after restocking.
- e) All records have been assembled and stored (after fumigation if originals) as instructed by the LDCC VI.

ANNEX 1

PRINCIPLES OF CLEANING AND DISINFECTION

1. Basic steps in cleaning and disinfection

- a) Remove gross and loose dirt.
- b) Bring **detergent** into contact with dirt by wetting.
- c) Allow time for the agent to disperse, break down and emulsify the different components of the dirt (fat, protein and mineral deposit).
- d) Rinse away dispersed dirt and traces of detergent (whilst preventing cross contamination of clean surfaces).
- e) Apply **disinfectant** to kill remaining virus particles.
- f) Rinse away residues of disinfectant.

2. CLEANING

It is essential to clean surfaces before they are disinfected as disinfectants are inactive in the presence of organic matter

2.1 Water

- a) Water is important in cleaning because it:
 - acts as the **solvent** for the cleaning and disinfectant compounds
 - **wets** the surface to be cleaned
 - **removes dirt**
 - **rinses** off any residues of the cleaning and disinfectant compounds.
- b) The **hardness** of the water (determined by the amount of calcium salts dissolved in it) is an important consideration in deciding the most suitable cleaning agent and the amount to be used.

2.2 Dirt

- a) The amount of dirt on the surface and its composition will affect the degree of physical and mechanical action required to remove it.
- b) Its interaction with the material of the equipment, the degree of penetration into the surface of the equipment and the equipment design (and thus accessibility of the surfaces for cleaning) are important factors in the effectiveness of cleaning.
- c) Material from animal carcasses, which contain high levels of protein and fat, must be removed using moderately warm (not hot) water to avoid caking or coagulation.

2.3 Cleaning agents

Cleaning agents:

- act as wetting agents, lowering the surface tension of water, thereby improving the agent's ability to contact and penetrate the surface to be cleaned
- emulsify oils and fats, facilitating their subsequent removal by physical or mechanical means
- help disperse dirt causing break down into smaller particles which are more easily removed
- assist in the breakdown of protein deposits by chemical action into peptides, which are more soluble and more easily removed than the protein compounds.

2.4 Cleaning performance

The efficiency of cleaning depends on:

- **Mechanical action** – the greater the better – consistent with not damaging equipment
- **Concentration** of the cleaning action – manufacturers recommendations must be followed
- **Temperature** – generally the higher the temperature the better (up to 80°C) – especially with fatty deposits
- **Contact time** – sufficient time must be allowed for the agent to work.

ANNEX 2

HEALTH & SAFETY INFORMATION

HAZARDS IDENTIFIED	PRECAUTIONS
<p>1. ELECTRICITY Risk of electrocution is high as many installations will not meet safety standards. RISK GREATLY INCREASED IN WET AREAS.</p>	<ul style="list-style-type: none"> • Premises supply must be switched off/isolated by competent electrician before cleansing and disinfection operations commence and must not be reinstated without reference to supervisor/competent electrician. • Supervisor must check and be satisfied that electrics are off before work commences. • Only 110 volt supply to be used.
<p>2. MACHINERY/VEHICLES– Risk of collision with other vehicles or pedestrians will be increased because of restricted area in which vehicles can operate on some premises.</p> <p>RISK WILL BE INCREASED IN FROSTY/ICY CONDITIONS.</p>	<ul style="list-style-type: none"> • Only certified/competent drivers/operators to be used. • Drivers must be constantly aware of other vehicles/pedestrians • Pedestrian staff to move to ‘Safe’ area while machinery/vehicles are operating. • High visibility jackets to be worn. • Ensure all machinery used is properly serviced and maintained and fit for the job.
<p>3. ENCLOSED TANKS/SILOS/ PITS ETC. Risk of asphyxiation/suffocation/ poisoning from toxic gases or lack of oxygen.</p>	<ul style="list-style-type: none"> • Confined spaces regulations may apply in these areas. • Permit to work system may need to be applied. • Only competent persons under close supervision to carry out this work. • Method statements must be prepared, safe system of work established and permit to work systems operated. • N.B. Entry into confined spaces e.g. slurry tanks /silage may require use of breathing apparatus, only fully trained competent people can do this work. • Contractors must carry out their own risk assessment and work accordingly. • Supervisors must ensure that ONLY SPECIALIST, TRAINED OPERATORS do this work.

HAZARDS IDENTIFIED	PRECAUTIONS
<p>4. OPEN TANKS, PONDS, LAGOONS, SILOS PITS ETC. Risk of drowning/asphyxiation.</p>	<ul style="list-style-type: none"> • Areas should be cordoned off unless already properly fenced and access prevented. • Warning signs should be erected. • Nominated staff will assess need to block off drains, tanks, ditches etc. • Designated staff only to work in low risk areas where drains are to be blocked off. • No one must ignore signs or cross fences.
<p>5. FIRE Risk greatest on premises where dry material e.g. straw is stored, where there are large amount of fat/grease, where dust is a problem and where flammable liquids are stored.</p>	<ul style="list-style-type: none"> • Do not smoke while working on any premises. • Be aware of and follow local FIRE ACTION procedures. • Make sure you know emergency procedures.
<p>6. UNSAFE BUILDINGS/STRUCTURES Risk of injury through collapse.</p>	<ul style="list-style-type: none"> • Buildings considered dangerous should be inspected by qualified surveyor prior to work commencing. Cordoning off and warning signs should be erected. • Do not enter, or allow others to enter, buildings which you know to be or suspect of being unsafe.
<p>7. HIGH LEVEL WORK IN/ON BUILDINGS Risk of injury/death through falls.</p>	<ul style="list-style-type: none"> • High level work must only be done from properly constructed scaffolding or by using access equipment. • High level work must be carried out by competent persons using safe systems of work. • Work should not be carried out in poor light conditions. Supplementary lighting should be provided. • All workers should wear: <ul style="list-style-type: none"> • hard hats • footwear with slip resistant soles.
<p>8. NOISE Machinery/Vehicles and animals can all produce levels of noise which may damage hearing on prolonged exposure.</p>	<ul style="list-style-type: none"> • Rough guide: if you have to shout to be heard or have difficulty in being heard clearly by someone two metres away when speaking normally, workers should be wearing EAR PROTECTION (i.e. ear plugs or ear muffs).
<p>9. POOR LIGHT Lighting will be poor on many premises and electricity supply will be off. Risk of accidents will be increased by inability to see properly.</p>	<ul style="list-style-type: none"> • Do not work in very low light levels. • Use SUPPLEMENTARY LIGHTING FROM A LOW VOLTAGE SUPPLY.

HAZARDS IDENTIFIED	PRECAUTIONS
<p>10. DISINFECTANTS (AND CHEMICALS USED AS DISINFECTANTS)/ DETERGENTS/CLEANERS Concentrated product may be corrosive and cause burns to skin. When diluted, not normally hazardous but may be irritant if exposure is prolonged.</p>	<ul style="list-style-type: none"> • Supervisors must ensure that Risk Assessments are made before use of these products, and that controls and precautions are in place. • Use only according to manufacturers/ suppliers instructions and safety data sheets and at correct dilution. • Always wear eye protection, waterproof overalls and rubber gloves when using these products. • Do not mix with any other chemical. • ACT QUICKLY TO REMOVE BY WASHING OFF SKIN OR THOROUGH EYE IRRIGATION USING LARGE QUANTITIES OF CLEAN WATER.
<p>11. HIGH PRESSURE SPRAYERS Risk of penetration/injection injury.</p>	<ul style="list-style-type: none"> • Supervisors must ensure that equipment is used only according to manufacturers/ suppliers instructions and by competent persons. • Spray lance must be directed away from self and others. • ON NO ACCOUNT SHOULD SPRAY JET BE DELIBERATELY DIRECTED TOWARD ANOTHER PERSON.
<p>12. FUMIGATION WITH FORMALDEHYDE - Exposure to vapour can give rise to severe respiratory injury and long term respiratory problems.</p>	<ul style="list-style-type: none"> • FUMIGATION WITH FORMALDEHYDE SHOULD ONLY BE USED AS A LAST RESORT WHEN NO OTHER OPTION IS AVAILABLE. • DO NOT ATTEMPT TO DO THIS YOURSELF. • SPECIALIST ASSISTANCE WILL BE NEEDED.
<p>13. ASBESTOS May be present as a component of corrugated roof sheets or wall cladding (asbestos cement products). Risk of release of fibres if sheets are broken, cut or damaged in other ways. Breathing in fibres can be dangerous. Fibrous asbestos e.g. in insulation products, is much more hazardous.</p>	<ul style="list-style-type: none"> • Use gentle cleaning methods for asbestos cement. Do not scrub, scrape or use high pressure spray to clean. • Specialist advice may be needed to deal with fibrous asbestos.

HAZARDS IDENTIFIED	PRECAUTIONS
<p>14. DUST This is a particular risk in old buildings and feed stores.</p>	<ul style="list-style-type: none"> • Appropriate face masks should be worn.
<p>15. AMMONIA This may be a problem in certain bedding where urine drainage is inadequate.</p>	<ul style="list-style-type: none"> • Testing to assess the level of ammonia should be carried out, where appropriate. • Ventilation of the area may relieve the situation. • Face masks and goggles should be worn.

ADVICE FOR OFFICER IN CHARGE OF INFECTED PREMISES

- **ALL ACCIDENTS, INCIDENTS, NEAR MISSES AND DANGEROUS OCCURRENCES MUST BE REPORTED TO THE C&D OFFICER IN CHARGE OF THE SITE.**
- **ANY INSTRUCTIONS ISSUED BY THE C&D OFFICER MUST NOT BE OVERRIDDEN WITHOUT PRIOR DISCUSSION.**
- **PROPOSED CHANGES IN PROCEDURES MUST BE CLEARED AND AGREED WITH THE C&D OFFICER BEFORE THEY ARE IMPLEMENTED.**
- **THERE MUST BE ADEQUATE PROVISION FOR FIRST AID ON SITE.**
- **ADEQUATE TOILET AND WASHING FACILITIES MUST BE AVAILABLE.**
- **THERE MUST BE ADEQUATE FACILITIES FOR WORKERS TO EAT, DRINK, AND TAKE REST BREAKS.**
- **SUPERVISORS MUST ENSURE THAT ALL WORKERS TAKE ADEQUATE REST BREAKS AND TIME OFF AND DO NOT WORK EXCESSIVE HOURS.**

ANNEX 3

PROTOCOL FOR SECURING THE SITE

1. Log and record all events occurring on the IP.
2. **NB. It is very important to record the dates of completion of preliminary and final C&D, as these dates influence the dates from which area restrictions may be lifted and the dates for re-stocking.**
3. Ensure that the **site is defined** and security is in place. Apply restricted premises signs/tape as necessary.
4. Ensure all farm gates, **entrances and exits are secured**. A Garda presence may be necessary initially to control unauthorised access.
5. Confine **entry/exit to a single point** and assign a person to supervise a **disinfection facility** (use FRS/TAO/other – do **not** use IP farm staff for this purpose). A power washer and supplies of protective clothing must be available at this point.
6. Survey the IP. Use **LPIS/orthophotography maps** or rough diagram to make preliminary notes.
7. **Record all vehicles** on the IP and ensure that no vehicle leaves without C&D.
8. Identify the location where **animals** were kept, slaughtered, buried or burned.
9. Identify the location where any **non-susceptible species** are kept, e.g. dogs, horses and poultry, and ensure that these confined.
10. Identify the location of the **water supply**, distribution points and storage areas. If none available arrange delivery by tanker.
11. Contact **ESB** and/or RECI or ESSCA registered electrician (i.e. one having public and property liability insurance). Arrange inspection of electrical installation and location of it, and have the supply switched off / diverted from farmyard prior to C&D commencing. A new separate supply may be needed for water supply and for the farmhouse. Install a 110v generator as a temporary source of supply if necessary, e.g. for internal lighting of dark buildings.
12. Set up **internal C&D point** for C&D for all vehicles, machinery and equipment and assign staff (farm staff/FRS/TAO/other). A well-drained, concrete area with a power washer and water supply will be necessary.
13. The **access roadway** from the external entry/exit point to the internal C&D point must itself be C&D daily. There should already be disinfectant mats at each C&D point and the disinfectant should be replenished twice daily.

14. Designate **suitable locations** for:
 - staff changing (with clean/dirty separation)
 - amenities and food.
15. Ensure that staff use the shower facility provided by the **Local Biosecurity Centre** at least at the end of each day.
16. C&D any **disposal equipment** remaining and not needed, and arrange inspection and release permits. In most cases contractors' equipment should be released quickly, after thorough C&D, to avoid incurring additional charges.
17. Review **rodent baiting** and check the service regularly.
18. Arrange C&D of **clothing and footwear** used by farmer/staff, and associated storage areas (may be in dwelling).
19. Ensure that arrangements have been made for **deliveries of food, post** etc.to farmhouse.
20. Review the IP **H&S statement** against the farm survey (see point 6. above).
21. Record electricity and water **meter readings**.

ANNEX 4

SITE ASSESSMENT AND C&D PLAN OF ACTION

1. SITE ASSESSMENT WORK ORDER:

- 1.1 Examine epidemiology and disposal reports.
- 1.2 Inspect the premises, adding data to the LPIS/orthophotography maps, and recording initial requirements/observations on C&D plan of action.
- 1.3 Finalise C&D plan of action. If necessary, seek direction from the LDCC VI, Local Authority experts (engineers, waste managers, environmentalists) and Teagasc experts, especially on matters relating to treatment and disposal of wastes.
- 1.4 Copy all of the above paperwork at Local Biosecurity Centre and provide 2 photocopies for LDCC VI (see Chapter 16, **Local Biosecurity Centre**).
- 1.5 Prepare the work schedule.

2. COMPLETING THE IP MAPS AND THE PLAN OF ACTION:

- 2.1 With the help and assistance of the farmer, individually identify all the fields, buildings, farm yards, animal waste areas including storage, feed and machinery stores etc, on the LPIS/orthophotography maps.
- 2.2 Mark those areas that were contaminated by susceptible animals, or which had been used during slaughter or which may otherwise be grossly contaminated.
- 2.3 Identify any locations that have not been contaminated.
- 2.4 The farmer should indicate the location of underground services [electricity, water, drains] so that these are not dug up inadvertently.
- 2.5 List each named item on the C&D plan and provide an accompanying description and details of the C&D work required on each item listed.
- 2.6 Select the most appropriate C&D techniques for each area and part thereof.
- 2.7 Identify the following areas on the maps and on the C&D plan of action (since the date infection was introduced to the IP):
 - a) all areas containing **animal wastes/products, manure, slurry, milk and storage areas in use** and estimate the quantities.
 - b) all areas where **animals were kept, slaughtered, buried/burned**.
 - c) all areas containing **animal feed** (of all types) or containing animal products likely to be either wholly/partially contaminated.

- d) **service areas** likely to be contaminated, e.g. machinery/equipment housing, dairy, farm clothing stores.
- e) **accommodation for any non-susceptible species**, including companion animals.
- f) **all areas/items not requiring C&D or burial/destruction** e.g. unopened feed (silage/silos/bagged feed), unopened medicines, AI straws, lagoons/manure heaps if not in use, areas/buildings/other enterprises which have not been contaminated.
- g) suitable **areas for burial/composting** of solid manure/organic material (including contaminated items – commonly feed of any type, straw, wool, non cleanable insulation boarding) and for the treatment of liquid wastes, e.g. slurry, milk and washings.
- h) suitable locations for **temporary lagoons** which may be needed for the treatment of **slurry or milk**, and estimate the volumes required, allowing for holding times after treatment.
- i) suitable **locations for temporary lagoons** which may be needed for the treatment of **washings**, and estimate the volumes required, allowing for holding times after treatment.
- j) any **additional hazards** not covered by H&S documents (and seek expertise in amending the H&S documents).
- k) the **animal burial site(s)** and note in particular any evidence of disturbance and any unburied contaminated material. If a pyre has been used for animals, or hay or straw, the residue should be buried.
- l) **dangerous/dilapidated buildings** (including those with asbestos roofs). Note and photograph the condition. Seal off if necessary, and place warning notices/tape at all entrances and exits.
- m) all **drainage outlets** from farm yard buildings and yards that have the potential to pollute streams (if not diverted into existing slurry stores/lagoons etc).
- n) all **crops** harvested and/or stored, e.g. hay, silage, cereals, wool and all feed stores in use
- o) location for burning/burial of contaminated **combustible items** e.g. hay, straw, non disinfectable wooden pallets, troughs.
- p) areas with **minor cracks** in concrete for repair
- q) contaminated **earthen floors and badly broken concrete** for removal and burial
- r) areas with **fittings to be dismantled** (this must be carried out prior to C&D)
- s) **sensitive equipment** requiring C&D by specialists, e.g. fumigation for electrical equipment, motors and fans/radiators.

- 2.8 Photograph the IP as necessary to convey all relevant IP details to the LDCC VI and note that this record may be used in the event of disputes (request duplicate prints for LDCC VI). The film rolls/disposable camera should be dropped into a sterile bag and then brought to the LBC.

Copies of the completed LPIS/orthophotography maps and the C&D plan of action must be given to the LDCC VI and copies retained on site. The LDCC VI must agree the site assessment (having amended it as necessary).

3. DRAFTING THE WORK SCHEDULE

Estimate the projected total time required, and the sequence and duration of each element of the C&D operation. In addition identify the personnel and equipment needed for the following operations:

- a) removal of gross animal wastes and grossly contaminated items which cannot be easily C&D
- b) initial cleaning
- c) first disinfection
- d) inspection
- e) repeat of (b) to (d) above in the event of inspection failure
- f) final disinfection [at least **7 days** after first disinfection]
- g) inspection
- h) repeat of (f) and (g) above in the event of inspection failure

ANNEX 5

INFECTED PREMISES SITE ASSESSMENT FORM

Name Herd No.
 Address IP No.

Type of Holding Dairy Beef Sheep Pigs

No. of animals slaughtered Any animals remaining? Y N Size of holding

Is there farm yard manure? Y N Is there slurry? Y N Estimated storage capacity (in litres)

Slatted system? Y N Maximum depth Amount held (in litres)

Confined spaces work required? Y N Slats removable? Y N

No of buildings? Condition of same: Good? Average?
 Dilapidated? Listed?

Asbestos? Y N Handling and disposal required? Y N

Dairy Parlour? Y N Will it require specialist attendance? Y N

Is there a good potable water supply? Y N Disposal site re-instatement Y N

Plastic disposal required? Y N Digging of lagoons or disposal sites? Y N

Preliminary disinfection completed Y N Date ____/____/____. Y N

Final disinfection completed Y N Date ____/____/____. Y N

Estimated cleaning time for () staff Days
 Weeks

List of machinery requiring C/D

1 _____	2 _____
3 _____	4 _____
6 _____	7 _____
9 _____	10 _____
	11 _____

Signed _____ Date ____/____/____.

Name Mobile Phone no.
 (Please print)