

Managing waste during an outbreak of an exotic disease of animals

Management of Animal Disease Outbreaks

The Animal and Plant Health Agency (APHA) lead the response to exotic notifiable animal disease outbreaks in Scotland. Scottish Government guidance "[Exotic Diseases of Animals: Contingency Framework Plan](#)" ('the Contingency Framework Plan') outlines the principles of disease control and the roles and responsibilities of the various organisations involved in a disease outbreak, including SEPA (see page 65).

SEPA's role is to support the APHA to minimise the environmental impact of an outbreak and provide advice on environmental protection and permitting compliance. This guidance supplements the Contingency Framework Plan and will be used by SEPA staff to support decision making during an outbreak.

Every livestock keeper should have a contingency plan in case of disease outbreak. This guidance may also be useful to those preparing their own plans.

Cleaning and Disinfection Stations

APHA is responsible for setting up and operating the cleaning and disinfection station. The Contingency Framework Plan refers to SEPA role as an advisor on how to minimise environmental impacts of disinfectants or biocides.

Appendix 1 provides a Field Assessment Checklist outlining SEPA's advice on how to select an appropriate location for a cleaning and disinfection station and how to prevent pollution during operation.

Managing Key Waste Streams

The following waste streams are likely to be produced during a disease outbreak.

1. Carcasses

During a disease outbreak, it is likely the APHA will use their powers to cull affected livestock. SEPA can advise on the use of authorised waste disposal sites in Scotland but the decision on which disposal facility to use rests with the DSG (Disease Strategy Group). The decision on disposal site and method will involve consideration of environmental and health risks and other constraints such as available capacity, the desire to limit transport of contaminated wastes, and the legislative controls for environmental protection and animal health. A hierarchy of disposal options is set out in the Contingency Framework Plan –

- Rendering / Incineration at approved and licensed premises
- Permitted commercial landfill
- Incineration on farm
- Burial on farm.

SEPA's presumption is that on-farm burial will be avoided in order to minimise environmental impact over the short and long term.

However, there may be some circumstances where on-farm burial is the only available option in which case, the burial must be authorised by SEPA. SEPA has produced guidance on [Regulation of Animal Carcass Burial](#) including the fast-track authorisation procedure. Where time is critical it may be possible to fast-track the authorisation process. This must be discussed in advance with the local SEPA Unit Manager.

Note that open burning is not an option in the hierarchy in the Contingency Planning Framework.

On-site incineration must be in purpose designed, enclosed units. Burning carcasses in the open, whether in air curtain destructors or on pyres is not permitted. Where the carcass incinerator has a capacity of <50kg/hr, it is regulated solely by APHA under the Animal By-Products Regulations. If an animal carcass incinerator has a capacity of greater than 50kg/hr, it requires a Permit from SEPA under the Pollution Prevention and Control (Scotland) Regulations 2012. In an emergency it may be necessary to waive authorisation to speed up the disposal process. This must be discussed in advance with the local SEPA Unit Manager.

2. Wash waters

Following an outbreak, buildings, yards and equipment will be cleaned and disinfected. The APHA will decide the extent and method of the cleaning and disinfection, including any site preparation and the disinfectant to be used. SEPA regulates the application of wash waters from cleaning and disinfection to land under CAR.

Temporary Storage of wash waters

Cleaning and disinfection creates large volumes of wash water which must be contained in existing dirty water or effluent management storage systems where possible, or in tanks or temporary holding pits or lagoons. Wash waters must not be allowed to discharge directly to the water environment.

Temporary storage lagoons must comply with the Control of Pollution (Silage, Slurry and Agricultural Fuel Oil) (Scotland) Regulations 2003 ("SSAFO") and:

- it must be 10m from watercourses or ditches,
- it must be 50m from wells, springs or boreholes used for drinking water or food production,
- the base must be above the water table,
- there must be a gap of at least 750 millimetres between the surface of the lagoon's content and the top of the lagoon wall,
- a liner must be used,
- liners can be made from butyl rubber or plastic (PVC or high or low density polyethylene),
- low grade liners must not be used in a high risk groundwater area

Temporary storage facilities must be inspected by SEPA prior to use. In an emergency this can be achieved over video call. Speak to the SEPA Water Industry & Rural Economy Team for support on SSAFO.

Disposal of wash waters

The preferred option is disposal at a sewage treatment works (either through an existing consented connection to the sewer network or by tanker). The operator of the sewer system or the treatment works must be made aware of the nature and volume of wash water and must give prior permission. Tanker movements must comply with the Duty of Care, including transported by a registered waste carrier and accompanied by a waste transfer note.

Where disposal at a sewage treatment works is not possible, the next option is to apply to land providing APHA are content this will not pose a risk of spreading disease.

Where the volumes are more than 10m³, the application of wash waters to land must be authorised by SEPA. The [CAR Registration for disposal of disinfectant wash waters to land should be completed](#). In an emergency it may be necessary to fast track the application to avoid delays in the disposal process.

Where the volumes of washings from livestock buildings are less than 10m³, you should discuss with SEPA whether this can be applied to land on a site-specific basis in compliance with the rules applicable to fertiliser under [CAR GBR 18](#).

Wash water may be combined with slurry for storage, however if greater than 10m³ of disinfectant wash waters are added to slurry, this will mean that a CAR Registration may be required for the application of the combined volume of slurry / washwater.

Option	Statement of preference
Disposal at a suitably licensed sewage treatment works or wastewater treatment works	First preference
Disposal to land. <10m ³ – apply to land in compliance with the rules under GBR 18 >10m ³ – Apply for a Registration under CAR	Second preference

3. Slurry

Slurry may need to be stored or treated prior to further use or disposal. APHA will advise on the treatment option depending on the disease involved. They will also advise when the material may be spread on land.

Slurry must be stored in accordance with the SSAFO Regulations and used in line with CAR GBR 18, the PEPFAA code and legislation on Nitrate Vulnerable Zones.

If the slurry is mixed with wash waters then you may need to apply for a CAR Registration for application to land may be required for the whole volume (see section 2 above).

Where slurry is used in an AD plant, the plant must have an environmental authorisation from SEPA. The level of authorisation needed will depend on the feedstocks and the size of the plant. If the AD plant is off-site, movement of the slurry must be in accordance with the [Duty of Care](#).

4. Manure, litter, bedding

Infected manure, litter and bedding which is contaminated or suspected of contamination with the virus/pathogen must be disposed of appropriately.

To minimise the risk of disease spread, APHA will generally require that manure is treated before application to land or disposal.

Storage and Treatment

The Avian Influenza and Influenza of Avian Origin in Mammals (Scotland) Order 2006 (the AI Order) regulated by the APHA includes an option for manure and bedding to be treated by being 'stacked to heat, sprayed with disinfectant and left for at least **42 days**. This 'stacking and storing' option may also be available for manures and bedding arising during other exotic animal disease outbreaks as instructed by APHA.

During an outbreak of an exotic notifiable animal disease SEPA will not normally pursue an application for an environmental authorisation for the storage, stacking and treatment of infected litter, straw, manure and slurry from infected premises where specified criteria are met. These are outlined in our position statement [WST-PS-042](#). Whether or not this Regulatory Position Statement applies would be decided on a case by case basis by SEPA and depends on the circumstances and appropriateness. The decision is made by the local SEPA Unit Manager.

Manure & bedding may be moved elsewhere for storage prior to destruction but only if licensed by a veterinary inspector. Transport must be in closed, leak-proof vehicles or containers in accordance with a veterinary inspector's instructions. The position statement WST-PS-42 only applies to storage and treatment at the farm/site affected. Any off-site storage and treatment options must be discussed and agreed in advance with the local SEPA Unit Manager.

Use & Disposal

Once the APHA is satisfied that the material has been fully treated and is no longer infectious, it can be applied to land as normal in line with CAR GBR 18, the PEPFAA code and legislation on Nitrate Vulnerable Zones.

Option	Statement of preference
On site storage, stacking and treatment followed by beneficial use on land	First preference
Off-site treatment at suitably authorised facility	Second preference
Disposal at suitably authorised landfill	Third preference
On-farm burning	Not recommended

5. Other wastes e.g. eggs, packaging, milk

The APHA will direct whether any other materials on site are suitable for use or must be disposed of. Depending on the disease they may issue a licence to allow eggs to be sent for manufacture into egg products.

Eggs may be suitable for composting and milk may be suitable for anaerobic digestion.

If milk is being stored in slurry tanks, care must be taken as this may give rise to potentially lethal levels of Hydrogen Sulphide.

Packaging may be suitable for recycling or energy recovery.

This guidance applies only in Scotland. The terms of this guidance may be subject to periodical review and be changed or withdrawn in light of technological or scientific developments, regulatory or legislative changes, future government guidance or experience of its use. SEPA reserves its discretion to depart from the guidance outlined here and to take appropriate action to avoid any risk of pollution or harm to human health or the environment.

Appendix 1 - Cleansing and Disinfection Centres

Field Assessment Checklist

Overall Aim:

SEPA's aim is that, wherever possible, the location of Cleansing and Disinfection (C&D) centres are located in areas that as far as possible minimise the risk of harm to the environment. In all cases, SEPA would wish to see all reasonable and practical measures taken to prevent the entry of disinfectants to the water environment. This includes all surface waters, wetlands, ditches, coastal and transitional waters as well as groundwater.

Yes No

PART 1	
SITE SELECTION	
<p>Q1. Is the proposed C&D centre, or any facilities associated with the centre, located within 10 metres of any surface water, or within 50 metres of any well or borehole?</p> <p>If yes, consider alternative location.</p> <p><i>Advice: consult SEPA if in doubt about status or otherwise of surface water. Also see above descriptions what is considered surface water.</i></p>	
<p>Q2. Are there any public or private water supplies downstream of the proposed C&D centre?</p> <p>If yes, consider alternative location.</p> <p><i>Advice: Scottish Water have an inventory of public water supplies Local Authority Services have a register of private water supplies.</i></p>	
<p>Q3. Are there any conservation interests downstream of the proposed C&D centre?</p> <p>If yes, consider alternative location.</p> <p><i>Advice: NatureScot will be able to offer site-specific advice.</i></p>	
<p>Q4. Is disinfectant Defra approved?</p> <p><i>Advice: use only Defra approved disinfectant.</i></p>	
<p>Q5. Has the operator read and implemented the disinfectant label instructions?</p>	
<p>Q6. Can disinfectant be discharged to public sewerage system?</p> <p>If yes, then do so.</p> <p><i>Advice: Any discharge to sewer would require the prior permission of Scottish Water.</i></p>	
PART 2	
PREVENTING DISINFECTANT ENTERING SURFACE WATERS	
<p>Q7. Have physical barriers (such as clay or sand bags) been provided to prevent disinfectant entering surface waters?</p> <p>If no, then consider doing so.</p> <p><i>Advice: It may be appropriate to direct any disinfectant run off to a storage area (use sand bags?) on the road surface, for collection.</i></p>	

<p>Q8. Have surface water drains on roads been bunded or blocked/capped off to prevent disinfectant entering surface waters?</p> <p>If no, then consider doing so.</p> <p><i>Advice: Where road drains cannot be blocked off at the roads surface, consider blocking off/capping any outlet pipes from road manholes/inspection chambers within the roads drainage system to allow collection of disinfectant away from the roads surface.</i></p>	
<p>Q9. Has a channel been dug, or channel created (for instance by sandbagging) to direct disinfectant run off to a collection point?</p> <p>If no, then consider doing so.</p>	
<p>Q10. Is a collection point or sump provided to collect disinfectant run off?</p> <p>If no, consider doing so.</p> <p><i>Advice: set aside an area where a collection sump can be hand or machine excavated. Any collection sump should preferably be lined with polythene, or other impermeable material (e.g. clay) and sited well away from surface waters and wells/boreholes. The sump is to allow the used disinfectant to be managed safely for disposal and not to allow it to soakaway.</i></p>	
<p>Q11. Are there stockpiles absorbents at the site (such as sand, sawdust, or soil) to allow any spillages of disinfectant to be dealt with quickly?</p> <p>If no, ensure adequate provision made for the site.</p>	
<p>Q12. If there is no direct access to the public sewer at the site, is there provision to securely store waste disinfectant (e.g. in a lined sump) and arrangements in place to collect it for off-site disposal?</p> <p><i>Advice: Where disinfectant cannot be discharged directly to sewer at the site, ensure there is a secure means of storing waste disinfectant such that the storage complies with the Duty of Care (i.e. prevents escape into the environment) <u>and</u> that arrangements are in place to collect the disinfectant for off-site disposal, e.g. by tankering in a leakproof vehicle to a disposal point on the public sewer (with Scottish Water's express permission), or to a suitably authorised waste management facility.</i></p>	
<p>PART 3</p> <p>OTHER FACILITIES ASSOCIATED WITH C&D CENTRES</p>	
<p>Q13. Are areas designated for storage of full disinfectant drums/bottles/containers/bags, and any areas used for the preparation of disinfectants are sited well away from surface waters (>10 metres), wells and boreholes (>50 metres)?</p> <p>If no, consider alternative location.</p>	
<p>Q14. Are there facilities provided at the site to securely store solid wastes arising from operations at the site and arrangements for collection and off-site disposal?</p> <p>If no, then consider providing solid waste storage.</p> <p><i>Advice: All waste disinfectant drums/bottles/bags/PPE etc. should be securely stored to prevent escape into the environment and prevent possible harm to human/animal health. Depending on prevailing conditions (e.g. likelihood of windblow, access by vermin, etc.) and the nature of the waste (e.g. materials that are not intrinsically harmful to the environment human/animal health) leakproof skips may be sufficient. For materials that present more significant risks to environment and/or human/animal health, a fully enclosed or lockable skip may be more appropriate. Arrangements should be in place to ensure that the waste is collected and transported off-site to an authorised facility for disposal.</i></p>	

<p>Q15. Are generator(s) provided at the site (for example for floodlighting/heating/other power for compressors etc)?</p> <p><i>Advice: Ensure generator is sited well away from surface waters, and place in bunded area (example: earth bund, lined with impermeable polythene liner).</i></p>	
<p>Q16. Will fuel oil, or other oils, stored on site (including drums, jerry cans etc.)?</p> <p>If yes, then provide dedicated bunded storage facility as specified in GBR 28.</p> <p><i>Advice : Refer to CAR Practical Guide. All oils should be located only in impermeable bunded areas. Consider also how fuel will be transferred from any stored oil to generators etc. Also, fuel delivery can present particular risks ensuring that all spilled fuel is contained and cannot enter surface waters (i.e. blocking off/capping drains prior to any refuelling).</i></p>	
<p>Q17. Are any oil clean up kit(s) provided at site?</p> <p><i>Advice: provide clean up kit to deal with minor spills.</i></p>	
<p>Q18. Are site facilities going to be provided (toilets/showers/hand basins)?</p> <p><i>Advice: Chemical toilets should be provided if at all possible. ‘Greywater’ from showers/handbasins should be directed to the disinfectant collection point or else permission sought for a discharge to vegetated land orto a soakaway. If flushing toilet installed, consider sealed septic tank with suitable discharge arrangements including appropriate authorisation under CAR.</i></p> <p><i>Any soakaway should be located >10 metres from any surface waters, and >50 metres from any well or borehole.</i></p>	