SEPA
Position statement

BAT for the pre-treatment of Clinical and Healthcare Waste

Purpose

This position statement clarifies SEPA's position as to what it considers Best Appropriate Technique (BAT) for the pre-treatment of Clinical and Healthcare Wastes.

Definition of Clinical Waste/Healthcare Waste

The most commonly used definition for clinical waste can be found in the Controlled Waste Regulations 1992[1]:

"any waste which consists wholly or partly of human or animal tissue, blood or other body fluids, excretions, drugs or other pharmaceutical products, swabs or dressings, or syringes, needles or other sharp instruments, being waste which unless rendered safe may prove hazardous to any person coming into contact with it " and *"any other waste arising from medical, nursing, dental, veterinary, pharmaceutical or similar practice, investigation, treatment, care, teaching or research, or the collection of blood for transfusion, being waste which may cause infection to any person coming into contact with it" .*

Healthcare Wastes are those wastes listed in Chapter 18 of the European Waste Catalogue[2] and arise from human and animal healthcare, i.e. from hospitals, GP surgeries, dental surgeries, veterinary surgeries etc. Note that not all healthcare wastes are clinical wastes, e.g. chemicals or medicines.

Rendering Safe

In the UK, infectious waste, including healthcare waste/clinical waste, from any source, is prohibited from being sent to landfill unless it has undergone a process of pre-treatment commonly referred to as 'rendered safe'.

The requirements of rendering safe depend on the type of waste treated and on the nature of the contaminants present in the waste. Once 'rendered safe' clinical waste should no longer pose a risk of infection, and, depending on the waste type, be unusable and/or unrecognisable.

The Department of Health guidance document 'Safe management of healthcare waste (SMHW)'[3] defines rendering safe as 'an accepted method or process' which when applied:

1. demonstrates the ability to reduce the number of infectious organisms present in the waste to a level at which no additional precautions are needed to protect workers or the public against infection from the waste;
2. destroys anatomical waste such that it is no longer generally recognisable;
3. renders all clinical waste (including any equipment and sharps) unusable and unrecognisable as clinical waste;
4. destroys the component chemicals of chemical or medicinal and medicinally contaminated waste. (For laboratory autoclaves, see the "Research and laboratory facilities" sector guide[4].)

Where these criteria have not been met, the waste is not considered to have been rendered safe.

SMHW further states that Alternative treatment plants (i.e. all non-incineration technologies) treating waste other than anatomical waste, medicines and chemicals must demonstrate points 1 and 3 above in order to demonstrate that the waste is rendered safe.

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[1] http://www.legislation.gov.uk/uksi/1992/588/contents/made
[2] http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:2000D0532:20020101:EN:PDF
[3] http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_126345
[4] http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/documents/digitalasset/dh_126348.pdf

Furthermore, where anatomical waste, medicines and chemicals are being treated points 2 and 4 above must also be met in order to demonstrate that the waste has been rendered safe.

Additionally, pre-shredding waste increases the surface area of the waste, providing a more homogeneous mass promoting a more efficient and consistent level of pathogenic reduction.

SEPA Position - BAT for the Pre-Treatment of Clinical Wastes

SEPA consider the above definition of 'rendered safe' to be BAT for the pre- treatment of Clinical and Healthcare wastes, and furthermore, the segregation of wastes, by the producer, cannot be relied upon as being part of the rendering safe process

Therefore where the chosen treatment technology is non-incineration or Alternative Technology, SEPA will require pre-shredding to ensure the waste has not only been 'rendered safe' but that the waste is also suitable for disposal to landfill as non-hazardous waste.

Where an operator proposes to treat clinical wastes by 'alternative treatment', without shredding/maceration, they must demonstrate to SEPA:

- that the treatment process can achieve a satisfactory level of microbial inactivation equivalent to STAAT level III (see definition of 'rendered safe' above). Validation, in accordance with SEPA guidelines, will be required on a weekly basis and reviewed after a period of 6 months;
- that measures are in place ensuring that only waste requiring microbial inactivation (STAATT III) are subject to AT process;
- that measures are in place to ensure that all waste is made unusable and unrecognisable as clinical waste;
- that measures are in place to ensure that all waste containing confidential information is rendered 'unrecognisable';
- that measures are in place to prevent the 're-use' of any waste that may pass through the treatment process unchanged; and
- that measures are in place to ensure that any medicinal products containing pharmaceutically active substances that may pass through the treatment process unchanged is rendered 'unusable'.

SEPA will assess each submission on a case by case basis.