Silage and slurry storage requirements

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What are the regulations?

The Water Resources (Control of Pollution) Silage, Slurry and Agricultural Fuel Oil (Wales) Regulations 2010 (SSAFO).

- These regulations set out the requirements for the design (capacity), construction and maintenance of storage facilities for silage, and slurry.
- They apply to all installations completed since September 1991.
- They require you to notify NRW, in writing at least 14 days before using a system that is new, substantially enlarged or substantially re-constructed. NRW have forms available to help you provide the necessary information.

Oil storage 2016 changes

The requirements for agricultural oil storage were replaced by the Control of Pollution (Oil Storage) (Wales) Regulations 2016 in March 2016.

For further details see *http://gov.wales/topics/environmentcountryside/epq/waterflooding/oil-storage-standards*.

These regulations cover **all** agricultural oil tanks regardless of the date of construction.

What are the standards for slurry and silage you must comply with?

Since 1991, all new substantially enlarging or substantial reconstruction of an existing facility, must be built to meet the capacity and construction standards as per the regulations summarised below:

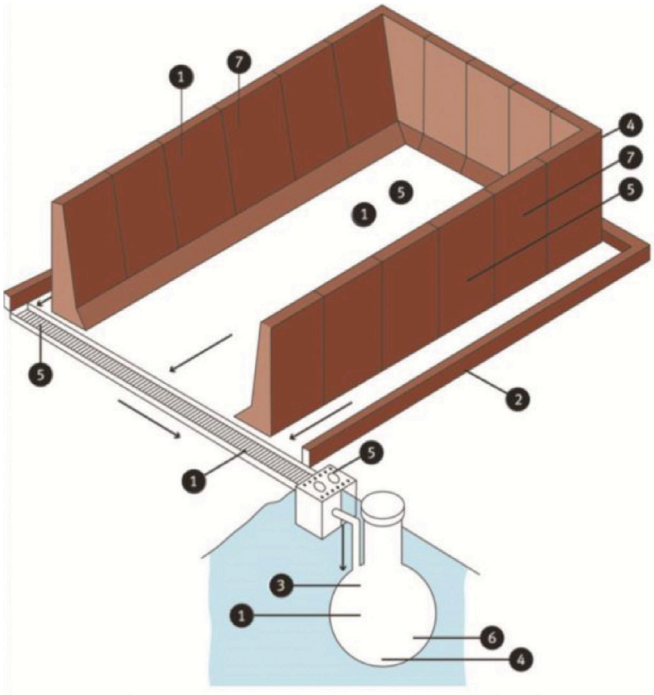
SILAGE

Baled and field:

- Baled and wrapped or bagged silage must not be stored or opened within 10 metres of a watercourse.
- If you use field silage sites to make or store field silage, or non-baled silage in large bags, for example 'Ag bags', you must notify NRW at least 14 days before you first use the site.

Silage clamps:

1. The clamp base, effluent tank and drains must all be impermeable and resistant to attack from silage effluent. The base of the clamp must be designed and constructed in accordance with BS8007 or BS5502 Part 21.
2. Where walls are used, the base must extend beyond walls. All silage clamps must include a perimeter drainage channel connecting to an effluent tank.
3. All effluent must be collected and contained. The silage effluent tank capacity must be 20 litres/cubic metre of silo capacity – up to 1500 cubic metres, plus an additional 6.7 litres/cubic metre of silo capacity thereafter.
4. No part of this installation should be within 10 metres of a watercourse or land drains.
5. Clamps and drains must be capable of lasting for 20 years (with routine maintenance).
6. Below-ground effluent tanks must be capable of lasting for 20 years without maintenance. A certificate to confirm suitable design and construction of tank and clamp must be sent to NRW 14 days before use.
7. If the clamp has walls, they must be designed to BS5502 Part 22 and be resistant to attack from silage effluent.

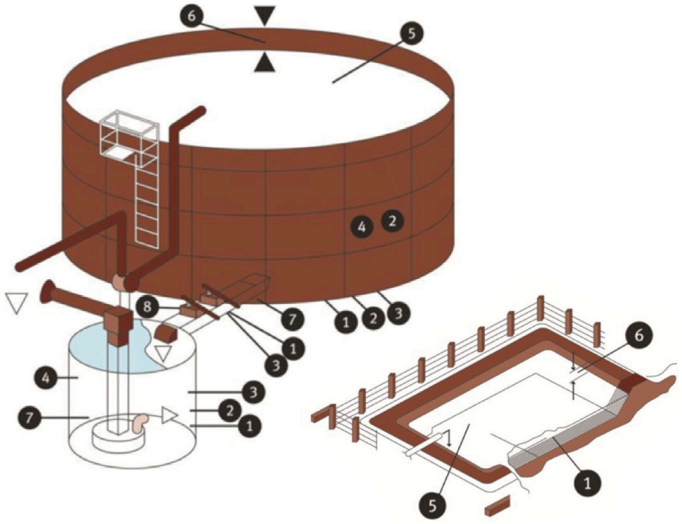


SLURRY

- Slurry is defined in the SSAFO regulations as liquid or semi-liquid matter composed of excreta produced by livestock while in a yard or building.
- Slurry definition includes parlour and yard washings, and any contaminated rainfall.
- Separating clean rainwater from roofs and yards can reduce the slurry storage capacity required.
- **Under SSAFO ALL slurry must be collected and stored.**
- No part of the system may be situated within 10 metres of a watercourse, where slurry could enter unless NRW has agreed, in writing, the location and additional measures to avoid pollution.

Slurry storage facilities requirements:

1. Slurry stores, tanks, pipes, and channels must be impermeable. Where walls of the slurry store are not impermeable (eg weeping wall stores), the base must extend beyond the walls and have perimeter drains that connect to a slurry tank.
2. The base and walls of the slurry storage tank, any effluent tank, channels and reception pit, and the walls of any pipes, must be protected against corrosion, as described in BS 5502, Part 50 (1993).
3. Slurry storage tank and reception pit must be designed to BS 5502, Part 50 (1993).
4. The reception pit and associated channels must normally hold at least two days slurry production, including likely rainwater.
5. A slurry storage tank must normally hold at least four months production, including allowance for likely rain water. In designated Nitrate Vulnerable Zones (NVZ), you will need to hold five or six months production dependant on the type of slurry produced.
6. The slurry storage tank must be designed to have a minimum freeboard of 300mm but earth banked stores must have a minimum 750mm freeboard to be maintained at all times.
7. All parts of the slurry storage system must be designed to last for 20 years with routine maintenance.
8. Any fixed drainage pipe from the slurry store must have 2 valves in series. These must be locked shut when not in use and for stores built since 2010 there must be at least 1 metre spacing between the valves.



Advice and guidance

- It is important that you seek professional advice for their design and construction.
- For more information see Ciria report Livestock manure and silage storage infrastructure for agriculture *https://www.ciria.org/resources/free_publications/farms.aspx*

Please ensure that you only use contractors or builders who understand and build in accordance with the SSAFO regulations.

Silage effluent and slurry have been the source of serious pollution, often due to inadequate storage capacity or poor construction. Sufficient storage for silage effluent and slurry or manure is essential to prevent the need for spreading outside the growing season or during inappropriate weather and soil conditions.

- Contact NRW as early as possible in the planning stage as they may be able to help save you time and money.
- NRW can make sure you are complying with the regulations and minimising pollution risks in the most cost effective manner.
- If any silage-making, or slurry storage system store poses a significant risk of pollution to surface or to ground waters, then NRW may issue a Notice that requires you to make improvements.

Contact NRW on:

Email: enquiries@naturalresourceswales.gov.uk
Tel: 0300 065 3000

or by post: Natural Resources Wales,
c/o Customer Care Centre, Ty Cambria,
29 Newport Rd, Cardiff, CF24 0TP