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Welsh Government

## Consultation Document

# Review of the Water Resources (Control of Pollution) (Silage, Slurry and Agricultural Fuel Oil) (Wales) Regulations 2010

Date of issue: **26 August 2015**

Action required: Responses by **20 November 2015**

## Overview

The Water Resources (Control of Pollution) (Silage, Slurry and Agricultural Fuel Oil) (Wales) Regulations 2010 (SSAFO) set standards for the making of silage and the storing of silage, slurries and agricultural fuel oil, so as to minimise the risk of water pollution. These substances have all caused significant pollution incidents, often due to farms having inadequate storage capacity, or storage being of poor quality.

Silage effluent and livestock manures can contribute to environmental pollution when they are spread to land outside the growing season, or in inappropriate weather conditions. Adequate storage enables farmers to manage valuable organic fertilisers, so that they can be spread in accordance with the requirements of the crop and reduce reliance upon costly manufactured fertilisers. This consultation is about the requirements for silage and slurry only. The fuel oil elements will be consulted upon separately.

The Regulations were initially introduced in 1991 as part of the implementation of the Water Resources Act 1991. They were the first Regulations designed specifically to address water pollution resulting from agricultural activities and are an important element in delivering Wales' Water Framework Directive obligations. Since introduction, the Regulations have only received minor amendments. As such, in accordance representations made by stakeholders and Working Smarter principles, the Welsh Government seeks to update the Regulations to ensure that they are appropriate for modern farming practices and compatible with associated Regulations affecting the agriculture sector. This will lead to greater understanding of the requirements of the regulations.

## How to respond

Responses can be submitted online via our website:

[www.wales.gov.uk/consultations](http://www.wales.gov.uk/consultations)  
[www.cymru.gov.uk/ymgyngoriadau](http://www.cymru.gov.uk/ymgyngoriadau)

Alternatively, you may complete the questionnaire in this document and send it to:

Sustainable Land Management Branch  
Agriculture and Rural Affairs Division  
Welsh Government  
Rhodfa Padarn  
Llanbadarn Fawr  
Aberystwyth  
Ceredigion  
SY23 3UR

E-mail: [SLMenquiries@wales.gsi.gov.uk](mailto:SLMenquiries@wales.gsi.gov.uk)

## Further information and related documents

Large print, Braille and alternative language versions of this document are available on request.

## Contact details

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## **Data protection**

### **How the views and information you give us will be used**

Any response you send us will be seen in full by Welsh Government staff dealing with the issues which this consultation is about. It may also be seen by other Welsh Government staff to help them plan future consultations.

The Welsh Government intends to publish a summary of the responses to this document. We may also publish responses in full. Normally, the name and address (or part of the address) of the person or organisation who sent the response are published with the response. This helps to show that the consultation was carried out properly. If you do not want your name or address published, please tell us this in writing when you send your response. We will then blank them out.

Names or addresses we blank out might still get published later, though we do not think this would happen very often. The Freedom of Information Act 2000 and the Environmental Information Regulations 2004 allow the public to ask to see information held by many public bodies, including the Welsh Government. This includes information which has not been published. However, the law also allows us to withhold information in some circumstances. If anyone asks to see information we have withheld, we will have to decide whether to release it or not. If someone has asked for their name and address not to be published, that is an important fact we would take into account. However, there might sometimes be important reasons why we would have to reveal someone's name and address, even though they have asked for them not to be published. We would get in touch with the person and ask their views before we finally decided to reveal the information.

## Introduction

Sufficient quantities of pollution free water are essential for local economies and communities as we rely upon it, not just for clean drinking water to our homes and businesses but for almost every aspect of our lives. The goods we buy, from food and clothing to high-tech items such as smartphones, the survival of our ecosystems, tourism and transport are all dependant upon clean water. Water also makes a significant contribution to our health and wellbeing, including for recreation, and for climate change mitigation and adaptation.

All of our activities place enormous pressure on water. Evidence shows that in Wales approximately 14% of Water Framework Directive (WFD) water quality failures are related to agricultural activities. Urban development, drainage infrastructure and flood defences have further exacerbated those issues. Restoring Wales' water environment is a priority and a key action within the Welsh Government's programme for environment and sustainability.

The Water Resources (Control of Pollution) (Silage, Slurry and Agricultural Fuel Oil) (Wales) Regulations 2010 (SSAFO) form an integral part of the regulatory framework in Wales, which is aimed at ensuring that the quality and quantity of water, which we rely upon for so many aspects of our lives, is sufficient. It also aims for efficient fertiliser use and, therefore, reduced financial losses for farmers by limiting reliance on costly manufactured fertilisers. The Regulations, through the promotion of efficient use of resources, also contribute to meeting our obligations as set out in a number of European Directives.

The Regulations can be accessed at the following link:

<http://www.legislation.gov.uk/wsi/2010/1493/made>

The Guidance Notes on SSAFO for Farmers can be accessed at the following link:

<http://wales.gov.uk/topics/environmentcountryside/farmingandcountryside/farmcountrypublicationindex/ssafowalesregs2010/?lang=en>

The implementation of the Nitrates Directive is one of the key instruments for protecting waters against agricultural pressures and is fundamental to the delivery of the WFD. The Nitrates Directive requires Nitrate Vulnerable Zones to be established for the protection of water from nitrate pollution. A Nitrate Vulnerable Zone (NVZ) is an area of land draining into ground or surface waters that are currently high in nitrate, or may become so if appropriate actions are not taken. The technical aspects of the SSAFO Regulations are key to the implementation of the Nitrate Pollution Prevention (Wales)

Regulations 2013 (the NVZ Regulations), which implement the Nitrates Directive in Wales. Rules on the capacity and construction of installations are mandatory elements of the Directive.

The SSAFO Regulations were first made in 1991 and have not changed in any substantial way since, yet farming practices have evolved considerably. It is important that we ensure that Regulations are fit for farming practices today and so this consultation aims to update the Regulations, where beneficial, without increasing regulatory burden.

### **Scope of the review**

The aim of this consultation is to consider whether changes to the SSAFO Regulations would be beneficial for the practical and efficient use, and management, of slurry and silage. The Welsh Government is reviewing the regulatory requirements for the management of slurry and silage to improve water quality and benefit farmers financially through greater understanding of nutrient management.

In particular, this consultation seeks to address the following issues:

- Currently there are different storage calculation methods and requirements for establishing slurry storage capacity under the SSAFO and NVZ Regulations. While there may be a need for enhanced requirements within NVZs due to water quality needs, a common method for calculating storage needs would create less confusion and facilitate greater understanding of the requirements.
- The definitions used within the Regulations could be clarified to give greater transparency in how the Regulations should be interpreted and enforced.
- Revised storage standards may need to be incorporated to include new construction standards (Eurocodes), new materials and associated standards and storage practices. Manure field heap storage practices are considered.
- Clarification of the requirement to maintain installations, so that they remain compliant with construction standards, through an appropriate, regular assessment regime. Such a regime may also be a mechanism to address the potential risk posed by stores which fall within the Regulation 6 exemption, that stores built, or being constructed, before 1991 are exempt from the requirements of the SSAFO Regulations.

- Clarification should be provided on whether the requirement for storage capacity for slurry produced over a 4 month period applies to those with no storage, or storage built before 1991, given the Regulation 6 exemption.
- Currently, Natural Resources Wales (NRW) must be notified at least 14 days before an installation is first used. However, if the design of the store is not compliant, costly alterations may be necessary. Therefore, a requirement to notify NRW at the design stage would avoid such instances. The notifications, at design stage and 14 days prior to first use, should be submitted with a declaration signed by the architect/construction company that the installation design or construction complies with the Regulations. While this may increase the administrative regulatory burden it reduces the risk of greater regulatory burden posed by costly alterations or rebuild and enforcement. It also reduces the farmer's risk of liability, which could be substantial in cases of catastrophic failure.
- Clarification should be included on the requirements for digestate storage, given increasing uptake of on-farm anaerobic digestion.
- Currently there are no intermediate sanctions available for enforcing the Regulations, with regulators often having to choose between issuing a notice and taking criminal proceedings. Enabling the use of civil sanctions would provide a proportionate enforcement mechanism. This means Natural Resources Wales would be able to enforce the Regulations appropriately and reserve criminal prosecution for the most serious offences.

Proposals to remove and replace the agricultural fuel oil storage element of the SSAFO Regulations are being consulted upon in a separately. The aim is ensure a common standard applies to all oil storage in Wales and will remove an existing exemption for such storage which predates 1991. The consultation on the Prevention of Pollution (Oil Storage) (Wales) Regulations can be found on the Welsh Government Website at:

<http://gov.wales/consultations/environmentandcountryside/prevention-of-pollution-oil-storage-wales-regulations/?lang=en>

## **Calculating storage capacity**

The different slurry storage calculation methods and requirements for establishing slurry storage capacity under the SSAFO and NVZ Regulations may cause confusion. Under SSAFO Regulations, a minimum of 4 months of storage is required, calculated by using likely rainfall figures, while NVZ Regulations require 5 months storage for grazing livestock and 6 months storage for non-grazing livestock, calculated using average rainfall figures. This means that storage requirements will usually be slightly greater for those within a NVZ.

A proposal to align SSAFO and NVZ storage calculations was made in the 2012 Review of Nitrate Vulnerable Zones in Wales consultation, which was rejected by the majority of respondents.

Those disagreeing with the proposal referred to the lack of evidence available to support the need for increased storage requirements outside NVZs. Information was provided that pollution events related to manure management are, in the vast majority of cases, related to significant storage deficits, rather than occurring on farms where the four months storage requirement under the SSAFO Regulations has been met.

The financial burden for farmers outside of NVZs was given by the majority of respondents rejecting the proposal as the reason for doing so. The divergence from the recommendations of the Working Smarter report was also highlighted in objections to the proposal.

In this consultation we propose that the NVZ storage calculation should be adopted in the SSAFO Regulations to remove the confusion caused by two different calculation methods. This meets with working smarter recommendations. However, to ensure that this change does not reduce resilience for newly built installations, the requirement for 5 months capacity livestock manure and 6 months for pig and poultry manure will also be carried over. This is because the adoption of the NVZ calculation, which uses different rainfall figures and does not necessarily need to include lightly fouled water (see Clarifying definitions section below), would mean that, in most cases, a 4 month storage period calculated by the NVZ storage calculation would require less storage than is currently required under the existing SSAFO calculation. An exemption similar to that provided by Regulation 6 will be incorporated, so that installations constructed prior to the change would not need to be modified in any way. The current SSAFO exemption for stores in use or constructed before March 1991 will also be retained, as will the option to manage slurry in alternative ways.

As part of this change it is recognised that providing advice on and promoting efficient practices, such as limiting applications to the crop requirement, clean water separation and the availability of relevant grants, will be useful in helping farmers adopt this change, as would the publication of rainfall figures. Efficient use of fertilisers, such as limiting applications to the crop requirement, is essential for reducing farm costs that are related to the loss of nutrients and for meeting Water Framework Directive requirements. Failure to protect water quality from pollution can lead to, for example, designation as a Nitrate Vulnerable Zone, as required by the European Nitrates Directive. Advice will be detailed in the revised guidance.

Clarification should be included on the requirements for digestate storage, given increasing uptake of on-farm anaerobic digestion.

### **Question 1**

**Do you agree that the SSAFO storage calculation method and requirements should be changed to those as required by the NVZ Regulations?**

### **Clarifying definitions**

The definitions used within the Regulations could be clarified to give greater transparency in how the Regulations should be interpreted and enforced.

Definitions will be included as follows:

#### **Dirty water**

Clarification would help reduce confusion for farmers dealing with 'dirty water', which is technically slurry but contains less nitrogen than other forms of slurry. We intend to adopt the same approach to 'dirty water' as established in the NVZ Action Programme. As such, 'dirty water' may be directed to a separate store for regular field irrigation and does not, therefore, necessarily need to be included in slurry storage calculations.

To provide clarification, 'dirty water' will be renamed 'lightly fouled water' and defined as lightly contaminated run-off from lightly fouled concrete yards or from the dairy/parlour, which have been, as far as reasonably practicable, scraped or brushed down immediately after use, and is collected separately from other forms of slurry. It does not include drainage from yards or buildings used to house or feed livestock, liquids from weeping-wall stores, manure storage on hard standings, strainer boxes, slurry separators or silage effluent, all of which are rich in nitrogen.

### Manure heap effluent

Effluent from farm yard manure stored on a solid surface is also technically slurry and should be treated as such. Clarification of the requirement for the discharge from farm yard manure stored on a solid surface to be collected and stored as slurry will be included within the SSAFO Regulations.

The definition will clarify that there is a difference between manure heaps that discharge slurry and solid manure that is temporarily stored in a free standing heap, which does not drain liquid from the material.

### Exemption Definitions

The Regulations provide that installations in use or built before March 1991, or where a contract for construction was entered into before March and completed before September 1991, are exempt from the construction requirements of the Regulations, and can normally be used, subject to certain limitations.

When an installation is substantially enlarged or reconstructed the Regulations will apply to that structure, and will apply to the whole installation, not just the newly extended or reconstructed part. For example, a major refit of an exempt store such as a replacement floor would bring the store and its associated drains and tanks inside the scope of the Regulations, but repairs or minor changes to a reception pit or channels would not necessarily cause a slurry storage tank to lose its exemption.

The Regulations will be amended to provide greater clarity on when alterations of an installation would require the whole installation to meet the construction requirements of the SSAFO Regulations in full.

### Yard Definition

There is potential for the definition of 'yard' to be interpreted as any impermeable area of the farm, to the exclusion of other areas that should be included, where animals are confined and, therefore, from where their excreta should be collected and stored. These include semi-permeable areas such as woodchip corrals.

An inclusive definition of yard will be included in the Regulations.

### **Question 2**

**Do you agree with the changes to the definitions as proposed?**

### **Question 3**

**Are there any other elements of the Regulations that should be clarified or legally defined?**

#### **Storage standards**

##### Installation standards

New installation standards may need to be incorporated to include new construction materials and storage practices and techniques.

The construction standards established by the SSAFO Regulations were necessary to provide for the safe storage of organic fertilisers, which can be harmful to all organisms, including livestock and humans. However, since the Regulations were introduced technological developments in construction and farming practices, such as suitable slurry mixing areas in lined earth bank lagoons to prevent puncture of the liner and soil permeability testing in the construction of earth banked lagoons, mean that the Regulations may need to be updated.

A review of CIRIA 126, a report produced by the construction industry research and information association concerning technical standards for the construction of storage facilities, is currently being undertaken. The Welsh Government will consider the findings of the review with a view to accounting for new technologies in the Regulations, as appropriate.

##### Manure heaps

Currently, the storage of manure in temporary field heaps is not covered by the SSAFO Regulations. Our understanding of the pollution risk from manure heaps is greater than when the SSAFO Regulations were first introduced. Leachates from solid manure heaps can contain elevated concentrations of multiple pollutants which are detrimental to surface waters.

In practice, pollutants infiltrating soil underneath a field heap and in run-off from the heaps are likely to be either retained in the soil or diluted with 'uncontaminated' water from the rest of the field. This means, pollutant concentrations will be reduced if there are sufficient barriers between the field heap and surface water.

There is also a need for clarity on the rules on the storage and spreading of manure. The spreading of manure is prohibited within 10 meters of surface water and 50 meters of a borehole, spring or well in cross compliance rules

and in Nitrate Vulnerable Zones and is also best practice, as detailed in the Code of Good Agricultural Practice.

A manure heap within these prohibited zones would be considered a breach of the rules as it would be, in effect, a significant application.

The omission of rules in the SSAFO Regulations may also incentivise the storage of manure in field heaps as a means to avoid other forms of storage, exacerbating the issue.

It is also recognised that manure from non-agricultural equines presents possibly a greater risk of pollution due to existing legislation and cross compliance rules which apply to the storage of livestock manure heaps. This disparity means that a farm with a small number of horses may be subject to rules on the storage of manure in temporary field heaps, while a neighbouring equestrian business with a large number of horses would not.

To address the above concerns, it is proposed that rules on the temporary storage of manure from livestock and equines in heaps in fields will be included within the Regulations. In order to prevent confusion by a different approach, the rules will mirror, in the main, those applicable to farms within Nitrate Vulnerable Zones, as follows:

(1) A temporary field site must not be:

(a) in a field liable to flooding or becoming waterlogged;

(b) within 50m of a spring, well or borehole or within 10m of surface water or a land drain (other than a sealed impermeable pipe);

(c) located in any single position for more than 12 consecutive months; or

(d) located in the same place as an earlier one constructed within the last two years.

(a) topsoil must not be removed from the ground upon which a temporary field site is to be constructed;

(b) located within 30m of a watercourse on land with an incline of greater than 12°;

(2) The surface area of a temporary field site should be as small as reasonably practicable to minimise the leaching effect of rainfall.

(3) Solid poultry manure that does not have bedding mixed into it and is stored on a temporary field site must be covered with an impermeable material.

#### Constructed wetlands

The Welsh Government recognises that the use of constructed wetlands may be beneficial for the treatment of contaminated water and reducing management costs. The Welsh Government supports the principle of including constructed wetlands in the SSAFO Regulations. However, it does not consider the information currently available to be sufficient for the development of comprehensive provisions.

#### Question 4

**Do you agree with the proposal to accommodate new technologies and practices in view of the findings of the CIRIA 126 review?**

#### Question 5

**Do you agree with the proposal to include rules on the storage of manure in temporary field heaps?**

#### Question 6

**Do you agree with the principle of including constructed wetlands within the SSAFO Regulations if further evidence becomes available to support this?**

#### Maintenance of installations

The SSAFO Regulations contain an exemption, providing that stores built, or being constructed, before 1991 are exempt from the requirements of the SSAFO Regulations. Clarification of the requirement to maintain installations will be included to ensure that installations compliant with the exemption are fit for purpose. It is considered that an appropriate, regular assessment regime is a better approach than removal of the exemption, which could mean that installations which are fit for purpose would have to be rebuilt or modified at significant expense.

The Welsh Government believes that, while removal of the exemption is not necessary, the risk of pollution from installations within the exemption should be reduced by ensuring that installations are properly inspected and maintained or repaired. It is already a requirement that installations which do not fall under the exemption fulfil the standards detailed in the Regulations. This means that it is not only sufficient for the installation to comply with the standards on construction but it must be maintained to retain compliance with the standards.

In implementing such a provision the Welsh Government seeks to avoid any unnecessary burden. It would prefer that the person in control of an installation is responsible for inspecting and ensuring the condition of that installation. This offers a degree of flexibility and minimum burden. It is, therefore, proposed that the responsibility of how this is done is retained by the individual whilst they must be able to demonstrate the mechanism being used and how it ensures compliance.

It is important that such a scheme would not unduly increase the regulatory burden on the farmer as this would be contrary to Working Smarter recommendations. Guidance will be provided on best practice.

#### Exemption clarification

Clarification will be provided on how the requirement for sufficient storage capacity applies to those with storage built before 1991, given the Regulation 6 exemption.

#### Question 7

**Do you agree with the proposal to introduce an inspection and maintenance regime for those stores which fall under the Regulation 6 exemption?**

#### Question 8

**Should the Regulations specify who should undertake inspections and how they should be recorded?**

#### Question 9

**Should it be an offence not to keep a record of inspections?**

## **Cross compliance**

As part of the cross compliance review we asked if the safety zones of the SSAFO Regulations and silo and slurry store construction standards should be incorporated into cross compliance and applied to all farmers (under the Buffer strips GAEC and Groundwater GAEC). Most responders were in favour but it was decided that we would continue to monitor the impacts on water quality of these measures as implemented and consider extending the provisions if there is evidence that this is necessary.

Safety zones in the SSAFO Regulations are designed to provide additional protection against pollution. The Regulations specify that installations should not be constructed, and silage must not be made, and silage, effluent, slurry or fuel oil must not be stored, within 10 metres of any inland freshwaters or coastal waters which any leakage could enter. The use of perforated drainage pipes within 10 metres of any slurry store or reception pit (to move exceptionally high groundwater away) is also against the Regulations.

Natural Resources Wales investigations show that over 150 water bodies currently fail because of agricultural activities. The majority of these failures relate to silage and particular slurry activities. The inclusion of the silo and slurry store construction standards of the SSAFO Regulations within the Cross Compliance regime would afford greater protection of groundwater from uncontrolled disposals and discharges resulting from poorly maintained stores. Compliance with such a new requirement would reduce the risk of penalties due to unexpected pollution incidents.

## **Question 10**

**Should the safety zones and silo and slurry store construction standards of the SSAFO Regulations be incorporated into cross compliance?**

## **Civil sanctions**

We propose to enable Natural Resources Wales to enforce the Regulations through Civil Sanctions.

Civil sanctions provide a proportionate alternative to prosecution for business and other persons who significantly fail to comply with environmental regulation. The main objectives of using the new civil sanctions and sentencing framework are to:

- Make enforcement more proportionate and appropriate to the circumstances
- In suitable cases, avoid prosecuting businesses (and other individuals or organisations who cause environmental offences) with the associated administrative costs and reputational damage when a civil sanction can achieve enforcement objectives equally as effectively.
- Reserve prosecution for the worst offences.
- Ensure restoration of environmental damage and certain adverse effects on local communities.
- Ensure 'polluters' pay the cost to society of their non-compliance.
- Remove financial benefit from non-compliance.
- Create a more level playing field in removing competitive advantages of non-compliance.
- Provide a stronger incentive for compliance in the future.

### **Question 11**

**Do you agree with the proposal to enable enforcement of the SSAFO Regulations through civil sanctions?**

### **Notice periods**

Currently, NRW must be notified at least 14 days before an installation is first used. However, if the design of the installation is not compliant, costly alterations may be necessary. Therefore, a requirement to notify NRW at the design stage would avoid such instances. Notifications will need to include a declaration signed by the architect/construction company that the installation design or construction complies with the Regulations. This reduces the farmer's risk of liability, which could be substantial in cases of catastrophic failure. While this would lead to a small increase in administration, the Welsh Government believes that the benefits outweigh the burden of reconstruction or alteration of a store non-compliant store. A commitment to make this change was given in the Welsh Government's response to the 2012 Review of Nitrate Vulnerable Zones in Wales.