

EUREAU response

Sewage Sludge Directive (86/278/EEC) – Stakeholder questionnaire

EUREAU is the political voice of Europe's drinking water and waste water service operators. Collectively, they provide water services to more than 400 Million people and reflect the full diversity of the European private as well as public water service industry across Europe.

EUREAU brings together national associations, representing water supply and waste water services in EU and EFTA countries. An observer status is granted to representative associations of countries in accession negotiations with the EU.

Currently, EUREAU covers:

- 24 out of the 28 EU member countries (All but Estonia, Lithuania, Latvia and Slovenia);
- 2 EFTA countries (Norway and Switzerland); and
- 1 Observer Member (Serbia).

General questions

1. Should the Sewage Sludge Directive remain in force as a separate legislative instrument? Could it be improved by a review or updating? Or should it be repealed? If so, is it necessary to retain its key principles and integrate them into other legislation, e.g. on waste, soils or fertilizers? Or can the regulation of sewage sludge be left to national authorities only?

Yes, the Directive should remain in force as separate legislative instrument. It provides a helpful degree of clarity that sewage sludge need not be subject to less appropriate 'waste' controls and so offers a proportionate regulatory regime.

Whilst the Directive is still relevant it could be improved by updating to enhance stakeholder confidence. Under current circumstances, the most sustainable use for sewage sludge is treatment and recovery onto agricultural land. The existing Directive recognises, reinforces and facilitates this important use and we wish to see this instrument retained.

The Directive should not be repealed or integrated with other directives, as this will lead to a loss of regulatory clarity. Maintaining a separate Sewage Sludge Directive also ensures Europe-wide consistency and alignment with Urban Wastewater Treatment Directive (UWWTD) expectations. The scope of local moderation has always existed and we continue to support this.

2. Has progress made in relation to the Sewage Sludge Directive's objectives (preventing harmful effects from use of sludge, defining heavy metal concentration values, prohibitions on use, analysis of sludge and soils) been in line with current expectations?

Yes, sludge recycling to agriculture under the current regulatory framework has a proven record as an environmentally beneficial low risk environmental activity that does not pose a risk to the environment or public health. The provisions of the Directive have been effective in preventing pollution from sludge use¹ and encouraging beneficial re-use.

The aim of the Directive is “to regulate the use of sewage sludge in agriculture in such a way as to prevent harmful effects on soil, vegetation, animals and man, while encouraging its correct use.” We continue to endorse this aim. We suggest that the aim could be enhanced to include the concepts of facilitating sustainability and resource recovery, within the term “correct use”. This would embed these principles into the Directive.

Coherence

3. Have you experienced any inconsistencies or overlaps between the Sewage Sludge Directive and other waste legislation (e.g. related to scope, objectives, targets, definitions)?

The separation of legislation for essential sanitation and related functions – such as UWWTD and the Sewage Sludge Directive – is sensible and efficient, (and we strongly wish it to remain separate) but risks creating fundamental inconsistencies.

The Water Industry throughout Europe is looking for clear and strong alignment between the waste and the sewage sludge legislative frameworks to incentivize innovation in resource recovery and thus enable safety for investments in future sludge treatment systems. However, we have broad concerns over the relationship with other waste legislation, such as the Waste Framework Directive (WFD) and Industrial Emissions Directive (IED). ‘Wastewaters’ (so far as covered by other Community legislation) are specifically excluded from the Waste FD but products arising from wastewater treatment – such as sludge that has beneficial use in agriculture - are not specifically excluded.

In short, almost everything that is not a product is labeled waste, and remains as waste (so incurring all of the management and treatment obligations) unless ‘end-of-waste’ can be proven. This is proving a very cumbersome and onerous approach that can actively disincentivise what are otherwise sustainable and low-carbon opportunities, and is pushing

¹ (Report from the Commission to the Council and the European Parliament on the implementation of Community waste Legislation Directive, Directive 86/278/EEC on sewage sludge, For the period 1998-2000).

regulation in an opposite direction to that of improving sustainable resource management and helping address climate change. Clarity that treated sludge is not 'Directive' (Waste FD) waste would be ideal, but as an alternative, that sludge compliant with the Sewage Sludge Directive quality criteria has achieved 'end-of-waste' status would be extremely helpful.

It should be noted that significant progress has been made in several European countries for major investment in sludge treatment i.e. advanced anaerobic digestion (AAD) which produces high quality sludges offering multiple benefits such as energy recovery during processing and a good final quality product rich in organic matter with valuable slow-release of nutrients.

Enabling treated sewage sludge to gain end-of-waste status would allow these materials to be seen as valuable resources for use by Member States in a range of products including energy production. We note that the EC is currently consulting on the Sustainable Use of Phosphorus COM (2013) 517 final. We suggest that there would be significant advantages for resource management across Europe if treated sewage sludges were an intrinsic component of a sustainable phosphorus cycle.

Irrespective of the status of the final sludge product, it would be beneficial to clarify that the sludge treatment stage falls under UWWTD. This is not specifically stated and leads to regulatory confusion and unnecessary cost. The situation is exacerbated by the changing definitions for wastewater exclusion used in the Waste Framework Directive revisions and is not simply a bureaucratic burden, however unwelcome it may be, but can also drive large increases in treatment investment and energy use with negligible environmental benefit. The existing regime has been effective and proportionate to the risks posed, which have been proven to be very small.

4. Is there an adequate level of coherence between the Sewage Sludge Directive and the Urban Waste Water Treatment Directive (e.g. complementarity of objectives, outcomes and implementation)?

Yes. Both directives consider the protection of the environment and have a clear presumption that sewage sludge should be recovered and reused. Both directives contain a reporting cycle (2 yearly for UWWTD and 4 yearly for Sewage Sludge Directive). Greater coherence in reporting requirements would enable the resource recycling to become more transparent.

The outcome of the sewage sludge directive is that a significant proportion of treated sewage sludge is recovered to land each year. In these respects, the two directives are complementary and we would wish to retain and, if possible, enhance this relationship. Enhancement would be in relation to securing other outlets for treated sewage sludge in addition to re-use in agriculture i.e. to ensure that all treated sewage sludge can be recovered/recycled and that gas by-products from sludge processing can be used in energy recovery as a resource.

As regards implementation, we will point to answers to this consultation given from our different national members. Many member states have put in place national regulations with

much stricter requirements for the quality of the end product before it can be used in agriculture.

Relevance

5. The Sewage Sludge Directive dates from 1986. Do the issues addressed by the Directive still match current needs? Do they continue to require action at EU level or could/should they be left to national authorities?

Yes, the issues addressed by the Directive still matches the current need in terms of environmental protection, but could be enhanced to help with stakeholder perception. This is echoed in the Millieu/WRC/RPA study for the EC that “significant environment or health risks linked to the use of sewage sludge on land have not been documented in scientific literature since the Directive took effect”.

Whilst the Directive is still relevant it could be improved by update to enhance stakeholder confidence (for instance as regards metals and pathogens, see answers to questions 8 & 11 below). Similarly, it could be updated to include the concepts of facilitating sustainability and resource recovery, within the term “correct use”. This would embed these principles into the Directive.

We wish to see innovative ways to ensure resource recycling, including treated sewage sludge. With this point in mind, we suggest that the EC could review the scope of the existing directive to cover uses other than agriculture; hence creating the opportunity for treated sewage sludge and gas by-products to be fully utilised and become available as part of a wider move to resource recovery. At the same time, the scope could be widened so that (for instance) sludges of a similar quality could also be recycled to agricultural land under the same provisions. This would encourage the co-digestion of sewage sludges with other organic wastes, so helping achieve landfill targets and providing renewable energy.

Setting the framework for sewage sludge re-use and recovery and linking these activities to the wider policy framework of resource reuse remains an action that is most effectively conducted at the EU level.

6. A **JRC study from 2013** has not identified risks from pollutants. However, in your opinion are there additional or emerging pollutants in sewage sludge which should be considered within sewage sludge legislation?

No. Research has shown that the consequences for human health of substances currently considered in sludge and amended soil are negligible. To avoid unwanted and harmful substances from entering the terrestrial or aquatic environment, focus must be on source control measures, rather than legislated quality requirements for sewage sludge. Such requirements may lead to the introduction of unsustainable end-of-pipe measures, leading to

increased energy use and carbon emissions from enhanced treatment processes. The concentrations of traditional persistent organic pollutants (POPs) in sludge have declined significantly in response to effective source controls imposed through European environmental legislation.

Key scientific evidence demonstrates there is no technical case or justification for including organic contaminants in a revision of the Sewage Sludge Directive. Any consideration of additional/emerging pollutants within sewage sludge legislation should be based on sound science, with a proven negative impact on environmental or human health and justification for any standards proposed. We would expect any future limits to be only introduced when they have been technically justified by research and testing, and then subject to a full regulatory impact assessment.

7. Does the current Sewage Sludge Directive sufficiently address resource efficiency, availability and recovery of raw materials? (e.g. have objectives been met, limit values adhered to, should they be changed to stimulate more progress, should they be changed to account for technical progress/new products/changes in design – taking into account concepts such as prevention, circular economy, product design, etc.)

Yes, in part. The current Directive facilitates the recycling of a range of plant-available and soil-extractable nutrients of significant value to agriculture thereby reducing the demand for phosphate fertilisers from mined phosphate rock.

We suggest that there would be significant advantages to resource management across Europe if treated sewage sludge were an intrinsic component of a sustainable phosphorus cycle.

We remain of the view that the most sustainable option for sewage sludge management is recycling to land which allows the full benefit of nutrients to be cycled back into the soil.

The Sewage Sludge Directive could be usefully amended to make it clear that sludge compliant with the quality criteria has achieved “end-of-waste” status. Whilst this is implicit in terms of recycling to agriculture, it inhibits the sale of treated sludge as a renewable resource for non-agricultural use.

Effectiveness

8. Are the current limit values for heavy metals in the Sewage Sludge Directive adequate, given that implementation in many Member States goes beyond the current Directive?

Any limit values set within a directive should be based upon scientific evidence for protection of the environment and human health; specifically in the case of the Sewage Sludge Directive, the limit values must also give confidence to the agricultural industry and consumers that sludges applied to land are safe. Significant research has been carried out

on the impacts and fate of metals applied to land which has proved that the existing limits do not pose a risk.

We therefore expect any future limits to be only introduced when they have been justified by the research, testing and a full impact assessment. Nonetheless, and given the reductions in concentrations of potentially toxic elements (PTEs) that have occurred in the past 20-30 years, some of the current sludge PTE limits in Directive 86/278/EEC could be amended or the sampling frequency relaxed to reflect the improved chemical quality of sludge. This would assist in improving the perception of sewage sludge which some stakeholders view as a 'dirty' material due to heavy metal content (as demonstrated in the recent discussions on 'end-of-waste' criteria for composts and digestate).

Furthermore, the current Directive permits individual Member States to develop national controls on metals appropriate to local circumstances. The current flexible and risk-proportionate requirements of the Directive relating to metals recognise that conditions differ between Member States. Recognising the need for flexibility in the metals limit values is an essential and fundamental concept that was successfully implemented through the current Directive.

9. Do you have any recent data (since 2010) on the implementation of the objectives and adherence to the limit values laid out in the Sewage Sludge Directive?

We will here point to answers given from our national members, and other member states bodies.

10. Has the Sewage Sludge Directive achieved any significant results above and beyond its stated objectives (e.g. reduced greenhouse gas emissions or encouraging innovation)?

Yes, the composition of sewage sludge is reflected by the quality of receiving waste waters. As a consequence of this, sludge quality requirements in the Sewage Sludge Directive has affected the need to control emissions to the sewer system and led to improved source control measures which have also had a positive impact on effluent quality and the water environment.

The Sewage Sludge Directive has also contributed positively to meeting climate change targets by facilitating the recycling of sewage sludge nutrients and thus reducing the demand for phosphate fertilisers. The recycling of sewage sludge to agricultural land has the additional benefits of increasing soil organic matter and improving water retention. Overall these benefits contribute to climate adaptation and carbon mitigation measures.

11. What are the main factors (e.g. national implementation, stakeholder action, cooperation between sectors) that have contributed to, or stood in the way of, achieving the objectives of Sewage Sludge Directive?

Agricultural use of sewage sludge is controlled by various national regulations and policies. Some stakeholders still have an adverse perception of sludge application to land. Stakeholder confidence is a specific challenge even though sewage sludge is of good quality and strict quality limits are based on national legislation.

Enabling treated sewage sludge to gain end-of-waste status would allow these materials to be seen as valuable resource for use by Member States in a range of products including energy production.

Efficiency

12. Are you aware of any good practices in terms of cost-effective implementation of the Sewage Sludge Directive (e.g. use of economic instruments, use of cost-effective technologies for use of sludge in agriculture, or for other treatment and disposal methods, or efficient management practices)?

We will here point to answers given from our national members, and other member states bodies.

13. Do you have any examples of costs associated with the Directive's implementation (initial set-up costs, capital expenditure and/or ongoing running costs) outweighing the benefits achieved?

We will here point to answers given from our national members, and other member states bodies.

14. Have you experienced any specific challenges that have made implementation of the Sewage Sludge Directive difficult in terms of cost effectiveness (e.g. development of wastewater treatment plants that conform to standards, provision of sewage sludge treatment facilities etc.)?

We will here point to answers given from our national members, and other member states bodies.

15. Has the Sewage Sludge Directive been kept fit for purpose through regular adaption to technical and scientific progress? Are there incentives to development innovative and cost-effective technologies to treat and use sludge?

Whilst the Directive is still relevant it could be improved by updating to enhance stakeholder confidence. There is a lot of innovation within the wastewater treatment sector, although this is principally driven by market forces whilst still remaining compliant with the Sewage Sludge Directive.

Innovation and new outlets for sewage sludge should be encouraged by allowing the treated sewage sludge (i.e. compliant with the Sewage Sludge Directive) to be passed to a third party for use as a raw material/alternative resource/product without it being labelled as “waste” (i.e. as having achieved ‘end-of-waste’) – for instance as feedstock for phosphorous recovery. In this way commercial and industrial processes will be able to view sewage sludge as a genuine “resource” without tainting their own end products.

The application of REACH regulations to products made from waste, act as a disincentive to achieve product status because the registration process is very demanding. Whilst sewage sludge is not currently included within the scope of REACH, products which have been made from waste are regulated by REACH unless there is an exemption. REACH should not prevent new methods and development of new products from sewage sludge..

16. Do you have any good examples of efficient cooperation amongst partners?

We will here point to answers given from our national members, and other member states bodies.