

Proposal for an amendment to Decree-Law No 99/1992 on the implementation of Directive 86/609/EEC on the protection of the environment, and in particular of the soil, when sewage sludge is used in agriculture

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Premise

EurEau, the European association of drinking water and wastewater services represents water operators from 33 European countries including all EU and EFTA states. We wish to comment the proposed amendment to Legislative Decree No. 99/1992, as notified by the Italian government under the TRIS procedure, as follows.

The proposed regulation introduces new parameters for assessing the stability of sludge derived from wastewater treatment processes, with the stated objective of enhancing environmental protection and public health in agricultural applications. Utilitalia fully supports this goal – particularly the reduction of odour emissions and the safeguarding of public health. However, the introduction of such criteria should be implemented gradually, in alignment with the existing regulatory framework and supported by robust scientific evidence.

Several Italian regions have already undertaken initiatives to collect more comprehensive data to inform future policy decisions. For example, the Lombardy Region is conducting a monitoring campaign which, through an experimental and pragmatic approach, aims to identify appropriate parameters for evaluating the stabilisation of sludge intended for agricultural use, based on the various treatment processes. This initiative also includes the application of such analyses to other similar matrices, with the aim of expanding and deepening the comparative basis of the results obtained. The Emilia-Romagna Region, drawing on the provisions of Legislative Decree No. 99/1992, has established qualitative and operational conditions to limit sludge fermentability. Specifically, it requires a minimum reduction in volatile suspended solids (VSS) of 35–45%, or alternatively, a sludge age exceeding 30 days. Furthermore, the sludge can remain on agricultural soil for no more than 48 hours, and incorporation into the soil must occur within 24 hours of deposition.

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Technical Observations

Article 2, paragraph 1, letter b) of Legislative Decree No. 99/1992 already requires that sludge undergoes treatment to reduce fermentability and, consequently, potential health risks. Scientific and technological advancements in recent years, along with the recent evaluation of Directive 86/278/EEC (published in May 2023), underscore the need to update the current regulatory framework.

However, the proposed thresholds for the Oxygen Uptake Rate (OUR \leq 25 mmol O₂/kg OM/h) and the Residual Methane Potential (BMP \leq 0.25 L/g VS), derived from EU Regulation 2019/1009, are not appropriate for sludge treated under Legislative Decree No. 99/1992 and intended for agricultural use, for several reasons:

- They do not reflect the diversity of treatment processes permitted under the Decree, which include biological, chemical, thermal, and mechanical methods, each with distinct characteristics and objectives;
- They are not compatible with the nature of sludge derived from urban wastewater treatment;
- They risk excluding a significant portion of sludge from agricultural recovery, resulting in the loss of essential nutrients (nitrogen, phosphorus, organic carbon) and increased pressure on landfill disposal or alternative recovery systems, including the potential need for export to foreign facilities.

Impact on Competition, Market Dynamics, and Operational Sustainability

The uniform application of the proposed parameters, without accounting for the specific characteristics of the treatment processes employed, could lead to market distortions and jeopardise the economic and environmental sustainability of the wastewater sector. In particular:

- Agricultural enterprises would lose access to an economical and sustainable source of nutrients, leading to increased production costs and greater reliance on synthetic fertilisers;
- Treated sludge from wastewater utilities would be excluded from the agricultural recovery market—not due to environmental or health concerns, but because of the technical infeasibility of meeting parameters designed for different matrices;
- The implementation of the proposed regulation would threaten the operational continuity of numerous treatment plants, forcing operators to adopt more costly disposal solutions, with direct repercussions on user tariffs. In addition, a completely new system would be required to equip laboratories to perform analyses based on the new parameters.



Scientific Evidence: The 2024 Utilitalia Study

To support the need for a gradual and evidence-based approach, EurEau refers to the findings of the 2024 Utilitalia national survey on the quality of urban wastewater sludge. The study involved 61 wastewater utilities, representing over 624 treatment plants and serving approximately 46.5 million population equivalents.

The analysis of approximately 53,500 data points revealed that:

- Sludge generally complies often with a wide safety margin with the limits established by current regulations for specific uses;
- Organic carbon content exceeds 33% in 50% of the samples, with only 43 out of 1,648 data points falling below the 20% threshold required for agricultural use;
- Nitrogen and phosphorus concentrations were adequate to meet crop nutrient requirements, with average values of 5.4% and 0.4% in dry matter, respectively.

Conclusions and Recommendations

In light of the above, EurEau considers that the proposal put forward by the Italian government is inconsistent with European regulations governing the functioning of the internal market and runs counter to the EU principles of promoting the circular economy and protecting the environment.

In this context, EurEau deems it necessary to:

- 1. Avoid the adoption of any legislative initiative which may be in contradiction to the requirements of article 20 (Directive 2024/3019) on sludge and resource recovery, including delegated acts specifying a combined minimum reuse and recycling rate for phosphorus from sludge and from urban wastewater. Furthermore, EurEau deems it necessary to postpone any national changes until the EU Circular Economy Act is approved, as this initiative may adapt certain quality requirements for sewage sludge covered by Directive 86/278/EEC.
- 2. Avoid the adoption of any legislative initiative until a comprehensive revision of the national regulatory framework is completed, supported by ongoing experimental studies and the validation of new analytical methodologies;
- **3. Pursue a differentiated approach** that takes into account the type of treatment applied and the specific characteristics of the sludge;
- **4. Provide for a transitional phase** within a broader regulatory revision process, allowing operators sufficient time to adapt to the new



requirements and avoid operational disruptions and significant economic impacts;

5. Establish a permanent national technical working group within the Italian Ministry of the Environment and Energy Security, involving industry associations, environmental and health authorities, and the scientific community, to ensure continuous and transparent dialogue throughout the regulatory revision process.