

## **Article X**

### *(Provisions on the fermentability of treated sludge)*

1. In Article 3 of Legislative Decree No 99 of 27 January 1992, the following is added after paragraph 6:

‘6-bis. The condition for the reduction of the fermentability of treated sludge within the meaning of Article 2(1)(a) and (b) of this Article shall be met if the sludge complies with at least one of the following biological stability limits:

- a) an oxygen uptake rate, pursuant to standard UNI EN 16087-1, not exceeding 25 mmol O<sub>2</sub>/kg of organic matter per hour;
- b) a potential to produce residual biogas, within the meaning of standard UNI/TS 11703, not exceeding 0.25 biogas per gram of volatile solids.’

## **EXPLANATORY NOTE**

Article 2(1)(b) of Legislative Decree No 99 of 27 January 1992, which regulates the use in agriculture of sewage sludge deriving from civil waste water and similar products, defines ‘*treated sludge*’ as sludge that has *undergone biological, chemical or thermal treatment, long-term storage or any other appropriate process, in such a way as to significantly reduce its fermentability and the health problems associated with its use*’.

Article 3(1)(a) of the same Legislative Decree correspondingly allows sludge to be used in agriculture only if it has been treated.

Accordingly, for the purpose of the ‘significant reduction’ in health problems potentially associated with the agricultural use of sludge, Legislative Decree No 99/1992 lays down specific limits in terms of parameters and maximum values, the non-compliance with which prevents the use of treated sludge.

However, the aforementioned Legislative Decree No 99/1992 does not provide for any quantitative indicators, compliance with which would allow the ‘relevant reduction in fermentability’ (meaning, from a technical point of view, the possibility that the treated sludge could trigger biological degradation phenomena, with the consequent foul-smelling and pestilential fumes) to be integrated into the meaning of Article 2(1)(b), due to the technological limitations at the time at which the Legislative Decree was drafted and, more pertinently, the lack of availability of consolidated and standardised measurement methods and instruments applicable to the matter in question.

The purpose of this proposal is therefore to supplement the current rules, so as to ensure that the use of treated sewage sludge in agriculture complies with hygiene and health requirements, reducing the olfactory impacts of the sludge and, therefore, increasing the degree of acceptability of its use by citizens, while promoting the achievement of the circular economy objectives.

## **TECHNICAL REPORT**

This proposal does not result in any new or increased burden on public finances. Rather, it promotes the progressive technological updating of the sector in question, orienting it towards more efficient stabilisation processes that enable the production of bioenergy and biofuels, with a consequent possible increase in revenue of about EUR 2 million per year, deriving from the payment of excise duties related to the production of biofuels and bioenergy.