

S.I. No. 267/2001 — Waste Management (Use of Sewage Sludge in Agriculture) (Amendment) Regulations, 2001

S.I. No. 148/1998 — Waste Management (Use of Sewage Sludge in Agriculture) Regulations, 1998



S.I. No. 267/2001 — Waste Management (Use of Sewage Sludge in Agriculture) (Amendment) Regulations, 2001

These Regulations amend the Waste Management (Use of Sewage Sludge in Agriculture) Regulations, 1998 ([S.I. No. 148 of 1998](#)) by replacing the two tonne per hectare per year limit on the amount of dry matter to be added to soil, with limits based on absolute quantities of specified heavy metals which may be introduced into soil per hectare per year subject to the carrying out of nutrient management plans. The Regulations also require that sludge is used in accordance with a nutrient management plan and provide for the inclusion of additional technical parameters to be entered in the sludge register provided for in the 1998 Regulations.

S.I. No. 267/2001 — Waste Management (Use of Sewage Sludge in Agriculture) (Amendment) Regulations, 2001

Part II

Limit Values for amounts of heavy metals which may be added annually to agricultural land, based on a ten year average

Heavy Metal	Limit Value (kilograms per hectare per year)
Cadmium	0.05
Copper	7.50
Nickel	3.00
Lead	4.00
Zinc	7.50
Mercury	0.10
Chromium	3.50

S.I. No. 148/1998 — Waste Management (Use of Sewage Sludge in Agriculture) Regulations, 1998

SCHEDULE

Part I

Maximum Values for Concentrations of Heavy Metals in Soil

Parameters	Maximum Values*	Expression of Results
Cadmium	1	mg/kg of dry matter in a representative sample, as defined in Part III of this Schedule, of soil with a pH of 5 to 7.
Copper	50	
Nickel	30	
Lead	50	
Zinc	150	
Mercury	1	

*Where the pH of the soil is consistently higher than 7, the values set may be exceeded by not more than 50%, provided that there is no resulting hazard to human health, the environment or, in particular, ground water.

Part II

Maximum Values for Concentrations of Heavy Metals in Sludge for Use in Agriculture

Parameters	Maximum Values	Expression of Results
Cadmium	20	
Copper	1,000	
Nickel	300	mg/kg of dry matter.
Lead	750	
Zinc	2,500	
Mercury	16	

Part III

Conditions Applying to Soil Sampling and Analysis

<p>1. A soil analysis shall cover: - (a) the parameters included in Part I of this Schedule, and (b) pH.</p>
<p>2. Samples taken for analysis shall be representative of the soil on the site and shall be made up by mixing together twenty five core samples taken over each area of five hectares or less used for the same agricultural purpose.</p>
<p>3. (a) Except where sludge is used on grassland, samples shall be taken to a depth of twenty five centimetres or the depth of the surface soil if less, provided that such lesser sampling depth is at least ten centimetres. (b) Where sludge is used on grassland, samples shall be taken to a depth of not more than six centimetres.</p>
<p>4. Where sludge is regularly used in agriculture soil shall be analysed at a minimum frequency of once in ten years.</p>

Part IV

Conditions Applying to Sludge Sampling and Analysis

1	<p>A sludge analysis shall cover: -</p> <p>(a) the parameters included in Part II of this Schedule, and (b) the following parameters: - dry matter, organic matter, - pH, - nitrogen and phosphorus.</p>
2	<p>Samples of sludge for analysis shall be representative of the sludge production and shall be taken before delivery to the user.</p>
3	<p>Subject to sub-paragraphs (a) and (b), sludge other than sludge referred to in paragraph 6 shall be analysed at least once every six months.</p> <p>(a) The frequency of sludge analyses may be reduced to once a year where the results of analyses do not vary significantly over a full year. (b) The frequency of sludge analyses shall be increased where changes occur in the characteristics of the waste water being treated.</p>
4	<p>Where it is evident, on the basis of analyses, that copper and zinc are either not present or are present only in negligible quantities in the waste water treated by the sewage treatment plant, the frequency of analyses for those parameters may be reduced to once in three years.</p>
5	<p>A person, other than a local authority, producing sludge for use in agriculture shall not reduce the frequency of analyses under conditions 3 or 4 without the prior approval of the local authority in whose functional area the sludge is produced.</p>
6	<p>In the case of sludge from a septic tank or sewage treatment plant referred to in article 9: -</p> <p>(a) a sludge analysis shall be carried out within six months after the commencement</p>

of the use of such sludge in agriculture,

(b) the frequency of sludge analyses may be reduced to not less than once in five years provided that, in the initial analysis, the values for the concentrations of heavy metals are lower than the values shown in Part II of this Schedule, and there is no change in the characteristics of the waste water being treated.

Part V

Methods of Analysis

1. Analysis for heavy metals shall be carried out following strong acid digestion.

2. The reference method of analysis shall be atomic absorption spectrometry.

3. The limit of detection for each metal shall be no greater than 10% of the maximum value for that metal.

Article 14 of the Urban Waste Water Treatment Directive (UWWTD) states that "Sludge arising from waste water treatment shall be re-used whenever appropriate. Disposal routes shall minimise the adverse effects on the environment."