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# Directive 86/278/EEC on sewage sludge

**10<sup>th</sup> April 2006**



# Legislation on Sewage Sludge



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**1. Urban Waste Water Directive 91/271/EEC**

**2. Sewage Sludge Directive 86/278/EEC**



“Sludge” means residual sludge from:

- (i) sewage plants treating domestic or urban waste waters
- (ii) septic tanks and other similar installations
- (iii) sewage plants other than those referred to above



## Directive 86/278/EEC - definitions



### “Treated sludge”:

sludge which has undergone biological, chemical or heat treatment, long-term storage or any other appropriate process to reduce its fermentability and the health hazards resulting from its use.

### “Agriculture”:

the growing of all types of commercial food crops, including for stock-rearing purposes.

### “Use”:

spreading of sludge on the soil or any other application of sludge on and in the soil.



# Aims of Sewage Sludge Directive 86/278/EEC



- Encourage the correct use of sludge
- Protect plants, soil and groundwater
- Safeguard human and animal health



# Limits for heavy metals



	Soil (mg/kg dm)	Sludge (mg/kg dm)	Load (kg/ha/year)
Cd	<b>1 – 3</b>	<b>20 – 40</b>	<b>0.15</b>
Cu	<b>50 – 140</b>	<b>1 000 – 1 750</b>	<b>12</b>
Hg	<b>1 – 1.5</b>	<b>16 – 25</b>	<b>0.1</b>
Ni	<b>30 – 75</b>	<b>300 – 400</b>	<b>3</b>
Pb	<b>50 – 300</b>	<b>750 – 1 200</b>	<b>15</b>
Zn	<b>150 - 300</b>	<b>2 500 – 4 000</b>	<b>30</b>



## Limits for heavy metals



**Use of sludge shall be prohibited where the concentrations of heavy metals in the soil are exceeded.**

**Sludge must be treated before being used in agriculture (unless injected or worked into the soil).**



# Sludge analysis



- **Every six months**
- **Every twelve months if no change**
- **Parameters:**
  - **dry matter, organic matter**
  - **pH**
  - **nitrogen & phosphorous**
  - **Cd, Cr, Cu, Hg, Ni, Pb, Zn**





# Soil analysis



- **Frequency decided by MSs**
- **Parameters:**
  - pH
  - Cd, Cr, Cu, Ni, Pb, Zn
- **Sampling method:**
  - 25 core samples over 5 ha
  - sampling depth: 25 cm (no less than 10 cm)
  - atomic absorption spectrometry



## More Stringent measures



- **Where conditions so demand, Member States may adopt more stringent measures than those provided in the Directive.**
- **Any such decision must be communicated to the Commission.**



## Revision of the Directive



- **Thematic Strategy on Waste – revision scheduled for 2007.**
- **No firm decision as to the exact date of the revision or line to be taken.**
- **Revision process to start shortly (consultation of stakeholders, Impact Assessment).**



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**Thank you for your attention!**

**For more information consult:**

[http://europa.eu.int/comm/environment/waste/index.  
htm](http://europa.eu.int/comm/environment/waste/index.htm)